



R.M.K ENGINEERING COLLEGE

Affiliated to Anna University , Chennai / Approved by AICTE , NewDelhi
R.S.M. Nagar,Kavaraipettai - 601 206, Gummi-lipoondi Taluk, Thiruvallur Dist



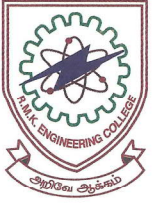
SELF STUDY REPORT - SSR CYCLE - I

Submitted for Accreditation



National Assessment and Accreditation Council
P.Box.No. 1075, Nagarbhavi Bangalore, Karnataka , India - 560072.





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R.M.K. ENGINEERING COLLEGE

(Sponsored by LAKSHMIKANTHAMMAL EDUCATIONAL TRUST)

(Approved by the All India Council for Technical Education)
(Affiliated to Anna University)

R.S.M. NAGAR, KAVARAIPETTAI - 601 206, GUMMIDIPOONDI TK., THIRUVALLUR DIST., TAMILNADU, INDIA.

TRACK ID NO.TNCOGN27546

Ref.: RMKEC/AO/ST1/2016/

Date : 27-04-2017

To
The Director,
National Assessment and Accreditation Council,
P.O. Box No.1075,
Nagarbhavi,
Bangalore – 560 072.
Karnataka.
Sir,

Sub.: NAAC – Accreditation – LOI accepted – **Track ID: TNCOGN27546 R.M.K Engineering College, Kavaraipettai – Cycle 1** – submitting of SSR hard copies and one soft copy and accreditation fees– reg.

Ref.: 1) Track ID :TNCOGN27546.
2)Your email of LOI acceptance dt.18-04-2017

With reference to your e-mail dated 18-04-2017, we are submitting herewith five hard copies of SSR and one soft copy (CD). The SSR has been prepared as per the prescribed manual / format of NAAC and all mandatory clauses as mentioned in your mail dated 18-04-2017, have been complied with.

We are offering 7 UG and 3 PG Engineering and Technology courses affiliated to Anna University, Chennai. We enclose herewith the Demand Draft No.936855 dated:06-04-2017 drawn on Indian Overseas Bank, Kavaraipettai Branch for a sum of Rs.3,45,000/- (Three lakhs forty five thousand only) towards the following fees:

Accreditation Fees for 10 Courses (7 UG + 3 PG)	:	Rs.3,00,000
Service Tax @ 15% on Rs.3,00,000	:	Rs. 45,000

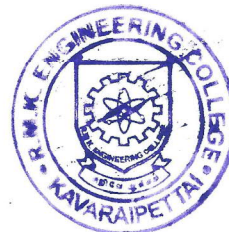
Total Amount	:	Rs.3,45,000
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Kindly acknowledge the receipt of the same.
This is for your kind perusal and for necessary further action.

Thanking You,

Encl.:

- 05 Hard copies of SSR and soft copy (CD)
- Demand Draft for Rs.3,45,000.



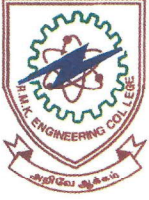
Yours sincerely

Junaid
27/4/17
PRINCIPAL

Dr. K.A. MOHAMED JUNAID, M.E., Ph.D.,
PRINCIPAL
R.M.K. ENGINEERING COLLEGE
R.S.M. NAGAR, KAVARAIPETTAI -601 206
GUMMIDIPOONDI TALUK, THIRUVALLUR DIST.

Administrative Office

PLOT No. 2981, Z BLOCK, 1st STREET, 13th MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040. ☎ : 26211504, 26266046



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Dr. K.A. MOHAMED JUNAID, M.E., Ph.D.,

PRINCIPAL

LOI Fee Submission Intimation Format

To,
The Director,
National Assessment and Accreditation Council
P.O. Box. No. 1075,
Nagarbhavi,
Bangalore – 5600072.
Karnataka.

Subject: Intimation regarding LOI Fee Submission – reg.

Dear Sir,

We hereby intimate that LOI submitted with following Bank Details:

Sl.No.	Particulars	
1	Track ID of NAAC:	TNCOGN27546
2	Name of the Institution:	R.M.K. Engineering College
3	Head of Institute:	Dr. K.A. Mohamed Junaid
4	Contact Mobile No.:	9865707860, 9442176867
5	DD No.	929367730
6	DD Date	30-03-2017
7	DD Amount	28750
8	Bank Name and Address	Indian Overseas Bank Kavaraipettai R.M.K. Engineering College Campus Kavaraipettai – 601 206.

With regards,

Junaid
31/3/17

(Signature with seal)

(Head of the Institution)

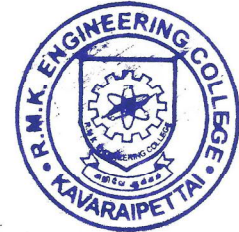
Dr. K.A. MOHAMED JUNAID, M.E., Ph.D.,

PRINCIPAL

R.M.K. ENGINEERING COLLEGE

R.S.M. NAGAR, KAVARAIPETTAI -601 206

GUMMIDIPOONDI TALUK, THIRUVALLUR DIST.



Administrative Office

PLOT No. 2981, Z BLOCK, 1st STREET, 13th MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040. ☎ : 26211504, 26266046

Table of Contents

Sl. No	Particulars	Page No
1	Preface	i
2	Executive Summary	ii
3	Profile of the Institution	1
	<u>Criterion-wise Evaluation Reports</u>	
4	Criterion I: Curricular Aspects	10
	1.1 Curriculum Planning and Implementation	10
	1.2 Academic Flexibility	20
	1.3 Curriculum Enrichment	25
	1.4 Feedback System	29
5	Criterion II: Teaching-Learning and Evaluation	31
	2.1 Student Enrollment and Profile	31
	2.2 Catering to Student Diversity	40
	2.3 Teaching Learning Process	48
	2.4 Teacher Quality	61
	2.5 Evaluation Process and Reforms	70
	2.6 Student Performance and Learning Outcomes	78
6	Criterion III: Research, Consultancy and Extension	98
	3.1 Promotion of Research	98
	3.2 Resource Mobilization for Research	110
	3.3 Research Facilities	114
	3.4 Research Publications and Awards	119
	3.5 Consultancy	124
	3.6 Extension Activities and Institutional Social Responsibility (ISR)	128
	3.7 Collaboration	132
7	Criterion IV: Infrastructure and Learning Resources	140
	4.1 Physical Facilities	140
	4.2 Library as a Learning Resource	147
	4.3 IT Infrastructure	151
	4.4 Maintenance of Campus Facilities	157

Table of Contents

Sl. No	Particulars	Page No
8	Criterion V: Student Support and Progression	161
	5.1 Student Mentoring and Support	161
	5.2 Student Progression	176
	5.3 Student Participation and Activities	180
9	Criterion VI: Governance, Leadership and Management	186
	6.1 Institutional Vision and Leadership	186
	6.2 Strategy Development and Deployment	194
	6.3 Faculty Empowerment Strategies	203
	6.4 Financial Management and Resource Mobilization	206
	6.5 Internal Quality Assurance System (IQAS)	212
10	Criterion VII: Innovations and Best Practices	219
	7.1 Environment Consciousness	219
	7.2 Innovations	222
	7.3 Best Practices	224
	<u>Evaluative Reports of Department</u>	
11.	Civil Engineering	231
12.	Computer Science and Engineering	248
13.	Electrical and Electronics Engineering	264
14.	Electronics and Communication Engineering	292
15.	Electronics and Instrumentation Engineering	311
16.	Mechanical Engineering	329
17.	Information Technology	354
18.	Science and Humanities	365
	<u>Annexures</u>	
<i>A1.</i>	<i>Declaration by Head of the Institution</i>	
<i>A2.</i>	<i>Certificate of Compliance</i>	
<i>A3.</i>	<i>Copy of the AICTE Approval</i>	
<i>A4.</i>	<i>Copy of Anna University Approval</i>	
<i>A5.</i>	<i>Minority Status Approval Letter</i>	

PREFACE

The RMK Engineering College is preparing itself for the first cycle of accreditation by National Assessment and Accreditation Council (NAAC). The accreditation report is the very valuable document and this document has been prepared with utmost sincerity and care to the best of our knowledge and belief. This report is prepared according to the instructions laid down by NAAC.

The College, started in the year 1995 has acquired recognition and public acknowledgement as one of the top ranking institutions in the State. The College is located on the Chennai-Nellore GNT Road (NH5) about 35 KM from Chennai.

The College offers 7 UG and 3 PG programmes in Engineering and Technology. RMK Engineering College has established 7 Research Centers approved by Anna University, In 2008 the College was conferred **Bharatiya Vidya Bhavan National Award for its Overall Performance** followed by the “**Best Principal**” Award in the year 2012, by the Indian Society for Technical Education (ISTE) New Delhi.

The College has been achieving **Academic Excellence** for the past 21 years and has always been in the top 10 position among all the Engineering colleges affiliated to Anna University.

The Institute has 274 faculty members with a sanctioned intake of 834 students in UG and PG courses. Efficient leadership and support provided by the dedicated Management, Contribution made by the faculty members, Staff, Other Stakeholders and proactive students contribute to maintaining the core values of the Institution. The College has established the quality culture in teaching-learning and administrative processes through the sustenance measures, ISO 9001-2008, NBA Accreditations and Internal Quality Assurance Cell.

It is important for any centre of higher education to know that true service lies in imparting world class education, inculcating moral and ethical values to motivate the young minds towards research for the future. The NAAC has developed certain measures for the continuous improvement of the quality of higher education. In the present report we have tried our level best to meet the standards as laid down by NAAC. The college is committed to fulfill the core values of NAAC.

With the Strong support and able guidance of our beloved Chairman, Vice-chairman, members of the Trust and the Governing council, we hope to raise this institution as one among the Top Engineering Colleges in India.

Dr. K.A. MOHAMED JUNAID
Principal

EXECUTIVE SUMMARY

**“If you help in creating the atmosphere, the rest will be Done by the atmosphere itself
Even the wingless leaves rise High like birds, when a Powerful storm comes”**

- Vinobha Bhawe

Hon’ble Founder - Chairman Shri. R.S. Munirathinam says

“I have provided the atmosphere. It is up to you to rise to the occasion”.

The R.M.K. Engineering College, started in the year 1995 is situated in a picturesque environment at Kavaraipettai, Gummidipoondi Taluk, Tiruvallur District, Tamilnadu. The College is run by Lakshmikanthammal Educational Trust. The objective of the Trust is to “foster technical and higher education, training & research in various branches of Engineering & Technology, while, the emphasis is to inculcate among the youth, a sense of discipline, and to mould them as professionals with integrity and character”. The College has acquired recognition and public acknowledgement as one of the top ranking institutions in the State. In 2008, the College was conferred the **Bharatiya Vidya Bhavan National Award for its Overall Performance** followed by the “**Best Principal**” Award in the year 2012, by the Indian Society for Technical Education (ISTE) New Delhi.

The R.M.K. Engineering College has been achieving **Academic Excellence** for the past 21 years and has always been in the top 10 position among all the Engineering colleges affiliated to Anna University. We have also been maintaining an excellent placement record all these years. In the current (2016-17), on the first day of campus recruitment, 1142 job offers were made to our students by the 3 major IT companies - CTS, Wipro and Infosys. Our College has been rated as **AAAA** among the India’s Best Engineering Colleges -2017 in a nationwide survey conducted by “**Careers 360**”. The College has been awarded the prestigious Platinum category certification for the four disciplines in the AICTE - CII survey of Best Industry Linked Technical Institutes - 2016.

Industry linked laboratories focusing on Big Data Analysis, Building Management Systems, Embedded Systems, Factory Automation, Front end Technology, Information Security, Internet of Things, iOS Mobility, CCNA, Product Life Cycle Management and Telecom have been established to provide industry oriented training and skill building to the

students in the focus areas as guided by the Advisory Committees consisting of the industry experts in the respective disciplines.

The R.M.K. Engineering College has been undertaking a lot of activities as a part of its Corporate (Institutional) Social Responsibility to provide services to the rural areas in and around the Institution, in collaboration with the Rotary Club of Gummidipoondi Industrial City, M.S. Swaminathan Research Foundation and reputed hospitals (for blood donation camps). It has also been trying to sensitize the student community on their social obligations and the need to exploit Engineering and Technology for rural Empowerment and Development. The major Awards and Rankings achieved by the College are given below.

S.No.	Award / Ranking Given by	Category	All India Ranking	Year
1	NIRF, MHRD	Secured 84th Rank among all Engineering Institutions across India including IITs and NITs	84th	2017
2	AICTE - CII	Awarded the prestigious 'PLATINUM' category certification for the four disciplines in the Survey of Best Industry Linked Technical Institutes - 2016		
3		Best industry linked award to Electronics & Allied Engineering Institute and ranked with 1 st in all india		2014
4		One among the five shortlisted Engineering college in india for best industry linked CSE / IT allied & Mechanical Engineering		2014
5	ISTE	BEST CHAPTER AWARD 2016 to RMKEC - ISTE CHAPTER for considering its quantum of activities at 46th ISTE National Annual Convention		
6	THE WEEK MAGAZINE	Top100 Private Engineering Colleges in India 2016	51 st	2016
7	OUTLOOK DRUSTI SURVEY 2016	Top 100 Engineering Colleges in India including IITs and NITs	85 th	
8	DATAQUEST	Top 100 Private T Schools in India	39 th	
9	CAREERS 360	India's Best Engineering Colleges 2017	AAAA	2017
10	CAREERS 360	India's Best Engineering Colleges 2016	AAA+	2016
11	HIGHER EDUCATION REVIEW	Top 100 Private Engineering Colleges in India	18 th	
12	SILICON INDIA	Top 100 Private Engineering Colleges in India	26 th	

OTHER NOTABLE AWARDS

- NBA, New Delhi has accredited six UG courses.
- ISO 9001:2008 certified by DNV Netherlands.
- “The Best Institutional Food Service Facility Management Award” by Food Safety and Drug Administration Department, Ministry of Health and Family Welfare, Government of Tamilnadu.
- Awarded as the ‘Clean and Green Campus’ by the Rotary Club of Chennapatna for the very clean, green and beautiful campus providing an excellent ambience for learning.
- Highest Number of BEC Examination takers in India by the British Council, .
- “NATIONAL EMPLOYABILITY AWARD 2016” for being one among the top 10% colleges in Tamilnadu that excelled in AMCAT.
- Awarded with “Best soft skill Rollout Award” in recognition of outstanding contribution in rolling out Infosys Campus Connect offering - Soft Skill Program during 2015
- Winner of World Education Awards 2013 in the “Green Campus” Category.
- The decade 2010 - 2020 has been declared as the Decade of Innovation through Research and Development, driven mainly by private sector participation, publishing more research findings and cooperation at national and international level.

The Institution has focused its attention on (i) Quality teaching-learning and (ii) Research encompassing consultancy, patenting and incubating ideas. The institution has established IEDC sponsored by DST to foster innovation, research and entrepreneurial activities. The Institution has created the right environment for promoting entrepreneurship among students through layer learning by doing projects from first year onwards.

The students are given complete flexibility and freedom to improve their performance. The Institution promotes measures for Institutional functioning towards continuous quality enhancement through the Best Practices.

Five core values of NAAC are listed below:

- Contributing to National Development
- Fostering global competencies among students
- Inculcating a value system among students
- Promoting use of technology
- Quest for Excellence

I. CURRICULAR ASPECTS

The curriculum is prescribed by Anna University, Chennai. In addition, we have included value added courses through the Centre of Excellence Laboratories for developing additional Knowledge, skill and employability.

Knowledge component encompasses:

- Basic Knowledge in fundamentals of engineering
- Specialization in one's own area
- General knowledge in other areas
- Conflict and crisis management
- Managing change
- Critical thinking
- Decision making
- Self-awareness
- Coping with stress and emotion
- Project management
- Planning, conducting and managing effective meetings and discussions
- Application of knowledge- Understanding professional ethical values.
- Some of the important skills engineer should possess are
 - *Effective communication and making powerful and effective convincing presentation*
 - *Give credit to the team members for success of any project and take responsibility for any failures instead of blaming others*

Ability

- To solve complex engineering problems
- Applying new technologies To design and fabricate through creative and innovative thinking
- Analyze and interpret data and design experiments to gain new data
- Have consideration for cost, benefits, safety, quality etc.
- Deliver with commitment on time
- Evaluate and manage risk factors involved

All these abilities are evaluated periodically. The course contains training programmes from First year onwards.

SWOC

- **S** - Special status in higher education areas
- **W** - Limited academic freedom
- **O** - Freedom to introduce new methodology using CoE Laboratories
- **C** - Regulation restrictions of the Parent University

II. TEACHING-LEARNING AND EVALUATION

- Transparent admission policies
- Recruitment of well qualified teachers as per procedure
- Preparation of lesson plans, Time Table and Academic calendar in advance and sharing with students.
- Supplementing classroom teaching through expert lectures, alumni interaction, seminars, workshops, mini-projects, Industrial visit, internship, training and e-courseware (NPTEL)
- Academic calendar and Feed back to ensure the quality
- Feedback helps to plan and execute systematic teaching-learning
- Designed structured-orientation programmes for the learner group
- Introduction of bridge courses, remedial classes, Coaching classes for slow learners.
- Creative Learning Methodology, learning by doing mini projects
- Special provisions for advanced learners using COE labs
- Funds for design and fabrication of working models as mini projects presentation of papers in seminar and conferences at national and international level
- Quality improvement of faculty by training and research programmes
- System for effective counseling
- Maintaining gender ratio besides reservation policies laid down by the Government
- Gender equity and admission opportunities for differently-abled students

SWOC

- **S** - Catering to diverse needs of the students with different backgrounds and Capabilities.
- **W** - Reduced core placement due to mass recruitment by IT companies.
- **O** - Value added Courses to improve Core knowledge, C-Programming courses for non-Computer students.
- **C** - Training the faculty members in the latest technologies as per industry requirement.

III. RESEARCH, CONSULTANCY AND EXTENSION

- Identification of thrust areas for research
- Establishment of 7 Research Centres approved by Anna University, Chennai
- Process of promoting the research culture among the faculty and students encouraged by the Management
- Organization of National level Conference and symposium every year for Faculty and intercollegiate students.
- Promoting research activities and providing financial assistance for registration, TA etc to participating faculty members
- Departments provided with secretarial assistance
- 77 research projects worth of Rs 36.47 lakhs under execution
- 51 faculty members qualified with Ph.D.
- 390 faculty publications in the last four years and 272 papers presented in the conference proceedings
- 9 Patents filed since 2010 and 1 Published
- Established 15 industry sponsored COE laboratories for fostering research
- 24 MoUs signed for the benefit of the students
- Institute Social Responsibility activities carried out through NCC, NSS, and society oriented clubs.

SWOC

- **S** - Conducive atmosphere to carryout research work
- **S** - Generous contribution by the Management for Research and Development
- **S** - Industry sponsored Centre of Excellence laboratories
- **S** - Inspire students in entrepreneurship by introducing project learning
- **W** - As a self-financing college, faculty members face difficulty while seeking funds from various Government funding agencies
- **O** - Scope for commercialization of research outcomes
- **C**- Obtaining funds from the Industries for research projects

IV INFRASTRUCTURE AND LEARNING RESOURCES

- Good Ambience Class Rooms, well equipped Laboratories, Tutorial Rooms for effective Teaching and learning with ICT facilities.
- Administrative Office, Department HoD Rooms and faculty Cabins with all required facilities.
- Air-conditioned ICT Enabled seminar halls, Board Rooms, GD & Interview Rooms and Open auditorium
- 48,071 sq mts. of buildings have been added in the last 20 years costing Rs 63.58 Crores
- Rs 18.11 Crores worth machines and equipment added in the last 20 years
- Well Stacked Library with 93313 Volume of Books with 25177 Titles and Online Journals for all Discilpilines.
- More than 1200 Computers and 30 iMac System with 290 Mbps Internet bandwidth
- Laundering facilities in hostels
- Network Maintenance Cell and Test & Repair Centre for maintenance of all hardware and software.
- Establishment of CoE laboratories through Industry sponsorship
- Modern Gym facilities separately for girls and boys
- Availability of indoor and outdoor sports facilities
- Establishment of Health Centers with qualified Physicians
- Bank ATM, Post Box inside the Campus
- Maintenance of campus facilities through qualified engineers and managers

SWOC

- **S** - Huge campus area with very good built-up structure
- **S** - Well equipped computer centre and Library
- **S** - Comprehensive Hostel facilities for students and faculty members
- **W** - Lack of interest in self-learning
- **O** - Training the students in the New technology areas for enhancing employability
- **C** - Rising costs of overheads and resources

V STUDENT SUPPORT AND PROGRESSION

- College has 3668 (UG) and 68 (PG) students
- Every year Rs.20 Lakhs financial assistance given by the Management to deserving students.
- 40 % of total students are benefitted by various scholarship schemes
- Recognition of College under Progressive Practices by AICTE and Anna University

- Establishment of Professional Chapters (IEI, IETE, ISTE, CSI, IEEE, ICI, IETE etc.,)
- Students' progress has been intimated to the parents
- Rs 16.30 lakhs funds allotted for sports activities every year
- 491 students have been placed in the current batch
- Alumni are actively involved in placement Training activities
- Coaching for GATE and BEC examinations conducted every year
- 34.43% of students avail hostel facilities.
- Separate Dining halls for day scholars / hostellers / Faculty and VIPs.
- WiFi facility in hostels.
- Publication of Department Newsletter, College Magazine.

SWOC

- **S** - Good rapport among the stakeholders
- **S** - Financial Assistance to needy students
- **S** - Industry Linkage for bridging the Gap in curriculum, training and placement
- **W** - Inadequate time for organizing extra-curricular activities (NSS / NCC)
- **W** - Impact of social media
- **O** - Opportunities for more placements
- **C** - Stiff competition among the students in placement, higher studies and research

VI GOVERNANCE, LEADERSHIP AND MANAGEMENT

- All Committee meetings are conducted regularly.
- Cordial Relationship between the Management, faculty and stakeholders.
- Coordination of academic and administrative planning, and implementation have been established through ISO and NBA guidelines.
- Transparency in the academic and administrative practices.
- Self-appraisal for faculty and students feedback systems.
- Monitoring mechanism through ISO audit.
- Feedback analysis, result analysis helps the Management to Correct shortfalls.
- Recruitment, FDP, empowering faculty member.
- Financial Management through Department budget and Institution Budget.
- Regular Internal and external audits for income and expenditure.

- Institution has IQAC. Planning and implementation of all academic and administrative activities of IQAC made known to all through Academic Co-Ordinator, ISO MR and Department ISO co-ordinator.

SWOC

- **S** - Proactive Management.
- **S** - Good rapport between the Management and stakeholders.
- **S** - Mechanism for faculty and student participation, empowerment and welfare.
- **S** - ISO and NBA to establish the quality in the institution as a whole.
- **S** - Scope for enhancing the industry and alumni interaction for institutional growth.
- **W** - Lack of parent's co-operation in feedback mechanism.
- **O** - Organizing FDP to meet the continuous training needs of HoDs and Professors.
- **O** - Establishing continuous interaction with industry for mutual benefits
- **C** - Balancing academic, administrative and research requirement by senior faculty members.

VII. INNOVATIVE PRACTICES

The first move towards quality in higher education is the realization of the Vision Mission and Goal statement of the Institution. Offering wide range of programmes in UG and PG itself vouch for the innovative approach adopted by the College. The College also takes serious steps in making the ambient competitive and innovative environment with its own benchmark. Serene Atmosphere maintained in the Campus provide stress-free life with modern amenities to the students and faculty members. Residential facilities are extended to Professors, besides providing transport facilities. Some of the highlights include:

- College adopts the environment-friendly practices
- Closer to 1500 trees planted inside the campus and landscape in 34.14 acres
- Installation of sewage treatment plant capacity of 10 Lakhs litres per day.
- Environmental awareness given to students and other stakeholders
- Rain water harvesting, collection tank have been established
- Energy saving LED lights are installed.
- Scholarship to the needy students by the Management
- Establishment of video conferencing facilities

- Introduction of surveillance camera through CCTV
- 725 KVA and 380 KVA Generator Backup Power.

SWOC

- **S** - Campus-wide implementation of the best practices
- **S** - Implementation of sustainability measures
- **S** -Maintenance of campus facilities linked with students activities
- **S** - Ready-to-invest approach by the Management
- **W**- Government funding for renewable energy
- **O** - Scope for the addition of energy saving electrical installation
- **C**- Maintaining the aspiration levels of students and faculty members

FUTURE PLANS

- To set up a central research & Innovation centre and make the campus as a hub for Innovative Research activities for new product Development and Services.
- To promote industrial cluster for micro and small industries.
- To have collaborative research arrangement with Industries / Government R&D organizations
- To have more number of MoUs with Foreign / National Universities / Industries for getting visiting professors / Adjunct Faculty members.
- To establish Technology Business Incubator (TBI)
- To get Autonomous status

SECTION B

SELF- STUDY REPORT

1. Profile of the Affiliated College

1. Name and Address of the College:

Name:	RMK ENGINEERING COLLEGE	
Address:	RSM Nagar, Kavaraipettai, Gummidipoondi Taluk, Tiruvallur District,	
City:	Pin:601206	State: Tamil Nadu
Website:	www.rmkec.ac.in	

2. For Communication:

Designation	Name	Telephone With STD code	Mobile	Fax	Email
Principal	Dr. K.A. Mohamed Junaid	O:044 3330 3331 R:044 43597333	98657 07860	044- 33303334	principal@rmkec.ac.in
Academic co-ordinator	Dr. S. Pavai Madheswari	O: 044 3330 3290 R:044 4549 3353	87540 33336	044- 33303334	ac@rmkec.ac.in
Steering Committee Co-ordinator	Dr. K. Manivannan	O: 044 2792 5600 R: 044 4555 4556	95000 81718	044- 33303334	kmani@rmkec.ac.in
	Dr. T. Gnanasekaran	O: 044 3330 3250 R: 044 2981 5027	94423 88527	044- 33303334	hod.eie@rmkec.ac.in

3. Status of the Institution:

Affiliated College

Constituent College

Any other (specify)

✓

4. Type of Institution:

a. By Gender

i. For Men

ii. For Women

iii. Co-education

✓

b. By Shift

i. Regular

ii. Day

iii. Evening

✓

5. It is a recognized minority institution?

Yes
 No

If yes specify the minority status (Religious/linguistic/any other) and provide documentary evidence. LINGUISTIC -TELUGU

6. Sources of funding:

Government
 Grant-in-aid
 Self-financing
 Any other

7. a. Date of establishment of the college: 18 /05/1995

b. University to which the college is affiliated/or which governs the college (If it is a constituent college) ANNA UNIVERSITY, CHENNAI

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i.2(f)		
ii.12 (B)		

(Enclose the Certificate of recognition/s2(f)and12(B)of the UGC Act.)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
AICTE	SOUTHERN/1-2811165868 / 2016/EOA B.E./B.Tech./M.E.	28-04-2016	1 year	

(Enclose the recognition/approval letter)

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes | No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized

a. by UGC as a College with Potential for Excellence(CPE)?

Yes No

If yes, date of recognition: (dd/mm/yyyy)

b. for its performance by any other governmental agency?

Yes No

If yes, Name of the agency and Date of recognition:

10. Location of the campus and area in sq.mts:

Location*	Rural
Campus area in sq.mts.	1,27,030.94 sq.mts.
Built up area in sq. mts.	48,071.05 sq.mts.

(*Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

Auditorium/seminar complex with infrastructural facilities

Available

Sports facilities -

Playground &
Gymnasium

Hostel facilities

- i. Number of Boys hostels - 3
- ii. Number of Girls hostels - 2
- iii. Number of in mates - (2 to 4 students)
- iv. Facilities (mention available facilities)
 - 1. Wi-Fi connection
 - 2. TV room
 - 3. Gym
 - 4. Guest room
 - 5. Beauty parlour / Salon
 - 6. Tennis / Shuttle court

Cafeteria - Available

Health centre - Available

Working women's hostel - Not Available

Residential facilities for teaching and non-teaching staff

Residential tutor (teaching staff) - 7 members

First aid, Inpatient, Outpatient, Emergency care facility, Ambulance - Available

Health centre staff

Qualified doctor Full time Part time

Qualified Nurse Full time Part time

- Facilities like banking & post office
- Transport facilities to cater to the needs of students and staff
- Animal house
- Biological waste disposal
- Generator or other facility for management regulation of electricity & voltage
- Solid waste management facility
- Waste water management
- Water harvesting

✓
✓
✓
✓
✓
✓
✓
✓

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1.	Under-Graduate	B.E./ Mechanical Engineering	4 years	+2 / Diploma	English	120	120
2.		B.E./ Electrical and Electronics Engineering	4 years	+2 / Diploma	English	120	116
3.		B.E./ Electronics and Communication Engineering	4 years	+2 / Diploma	English	180	180
4.		B.E./ Computer Science and Engineering	4 years	+2 / Diploma	English	120	120
5.		B.E./ Electronics and Instrumentation Engineering	4 years	+2 / Diploma	English	60	58
6.		B.E./ Civil Engineering	4 years	+2 / Diploma	English	120	117
7.		B.Tech./ Information Technology	4 years	+2 / Diploma	English	60	60
8.	Post-Graduate	M.E - Computer Science and Engineering	2 years	B.E/B.Tech	English	18	6
9.		M.E- Applied Electronics	2 years	B.E/B.Tech	English	18	4
10.		M.E- Power Electronics and Drives	2 years	B.E/B.Tech	English	18	2
11.	Ph.D.	Admitted by Anna University – 7 research centres					

13. Does the college offer self-financed Programmes?

Yes No

If yes, how many?

14. New programmes introduced in the college during the last five years if any?

Yes No Number

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes Like English, regional languages etc.)

Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Science	NA			
Arts	NA			
Commerce	NA			
Engineering and Technology	B.E./ Mechanical Engineering B.E./ Electrical and Electronics Engineering B.E./ Electronics and Communication Engineering B.E./ Computer Science and Engineering B.E./ Electronics and Instrumentation Engineering B.E./ Civil Engineering B.Tech./ Information Technology M.E - Computer Science and Engineering M.E- Applied Electronics M.E- Power Electronics and Drives	7	3	7

16. Number of Programmes offered under (Programme means a degree course like BA, BSc,MA, M.Com...)

- a. Annual system
- b. Semester system
- c. Trimester system

17. Number of Programmes with

- a. Choice Based Credit System
- b. Inter/Multi disciplinary Approach
- c. Any other(specify and provide details) - CGPA

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No

If yes,

- a. Year of Introduction of the programme(s).....(dd/mm/yyyy)
and number of batches that completed the programme
- b. NCTE recognition details (if applicable)

Notification No.:.....

Date:.....(dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?

Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

If yes,

a. Year of Introduction of the programme(s).....(dd/mm/yyyy)

and number of batches that completed the programme

b. NCTE recognition details (if applicable)

Notification No.:.....

Date:.....(dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?

Yes No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC/University/ State Government <i>Recruited</i>	22	12	19	28	94	102	52	13	39	23
<i>Yet to recruit</i>	-	-	-	-	-	-	-	-	-	-
Sanctioned by the Management/ society or other authorized bodies <i>Recruited</i>	22	12	19	28	94	102	52	13	39	23
<i>Yet to recruit</i>	-	-	-	-	-	-	-	-	-	-

*M-Male*F-Female

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	19	12	04	07	05	03	49
M.Phil.	-	-	02	02	06	24	34
PG	1	-	13	19	68	72	173
Temporary teachers							
Ph.D.	01	-	-	-	-	-	01
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	14	03	17
Part-time teachers							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

22. Number of Visiting Faculty/Guest Faculty engaged with the College. 3

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2016-17		2015-16		2014-15		2013-14	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	35	32	23	35	31	37	48	44
ST	1	1	1	3	2	2	-	3
OBC	295	179	279	185	275	279	386	290
General	169	59	172	80	160	91	282	91
Others	-	-	-	-	-	-	-	-

24. Details on students enrolment in the college during the current academic year:

Type of students	UG	PG	M.Phil.	Ph.D.	Total
Students from the same State where the college is located	601	12	-	-	-
Students from other states of India	170	-	-	-	-
NRI students	-	-	-	-	-
Foreign students	-	-	-	-	-
Total	771	12	-	-	-

25. Dropout rate in UG and PG (Average of the last two Batches)

UG : 1.48	PG : 0
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26. Unit Cost of Education

(Unit cost=total annual recurring expenditure(actual)divided by total number of students enrolled)

(a)including the salary component	Rs. 1.31 Lakh
(b)excluding the salary component	Rs. 0.69 Lakh

27. Does the college offer any programme/s in distance education mode(DEP)?

Yes No

If yes, a) is it are registered centre for offering distance education programmes of another University

Yes No

b) Name of the University which has granted such registration.

c) Number of programmes offered

d) Programmes carry the recognition of the Distance Education Council.

Yes No

28. Provide Teacher-student ratio for each of the programme/course offered

Sl. No.	Name of the Programme/Course	Sanctioned/ approved Student strength	Faculty strength	Teacher-student ratio
1.	B.E./ Mechanical Engineering	120	37	1 : 12.97
2.	B.E./ Electrical and Electronics Engineering	120	34	1 : 12.35
3.	B.E./ Electronics and Communication Engineering	180	47	1 : 11.49
4.	B.E./ Computer Science and Engineering	120	25	1 : 14.40
5.	B.E./ Electronics and Instrumentation Engineering	60	18	1 : 13.33
6.	B.E./ Civil Engineering	120	25	1 : 14.40
7.	B.Tech./ Information Technology	60	18	1 : 13.33
8.	M.E - Computer Science and Engineering	18	3	1 : 12.00
9.	M.E- Applied Electronics	18	3	1 : 12.00
10.	M.E- Power Electronics and Drives	18	3	1 : 12.00

29. Is the college applying for Accreditation:

Cycle1 Cycle2 Cycle3 Cycle4

Re-Assessment:

(Cycle1 refers to first accreditation and Cycle2, Cycle3 and Cycle4 refers to re-accreditation)

30. Date of accreditation*(applicable for Cycle2, Cycle3, Cycle4 and re-assessment only)

Cycle1:(dd/mm/yyyy) Accreditation Outcome/Result.....

Cycle2:..... (dd/mm/yyyy) Accreditation Outcome/Result.....

Cycle3:.....(dd/mm/yyyy) Accreditation Outcome/Result.....

**Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.*

31. Number of working days during the last academic year.

198

32. Number of teaching days during the last academic year

(Teaching days means day on which lectures were engaged excluding the examination days)

180

33. Date of establishment of Internal Quality Assurance Cell (IQAC)

14/07/2016

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC: Cycle 1

AQAR (i).....(dd/mm/yyyy)

AQAR (ii)..... (dd/mm/yyyy)

AQAR (iii)(dd/mm/yyyy)

AQAR (iv)... (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information) - Nil

CRITERION I : CURRICULAR ASPECTS

1.1 CURRICULUM PLANNING AND IMPLEMENTATION

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Vision:

- To be the most preferred destination in the country for pursuing education in Engineering and its allied fields, at the undergraduate and post graduate levels, and for undertaking doctoral research.
- To transform learners into achievers at the global level with the right attitude towards changing societal needs.

Mission:

- To develop the needed resources and infrastructure, and to establish a conducive ambience for the teaching- learning process.
- To nurture in the students, professional and ethical values, and to instill in them a spirit of innovation and entrepreneurship.
- To encourage in the students a desire for higher learning and research, to equip them to face the global challenges.
- To provide opportunities for students to get the needed additional skills to make them industry ready.
- To interact with industries and other organizations to facilitate transfer of knowledge and know- how.

Objectives:

- To impart world class education.
- To provide excellent academic ambience for effective teaching-learning process
- To mould the students as responsible Engineers with good ethical values for societal development
- To minimize the gap between industry and institute by systematically updating the academic process.
- To establish Centers of Excellence in each core area
- To offer placement to all the students who opted for
- To promote R&D and Consultancy activities there by encouraging the students for implementing their Innovative ideas

The Vision, Mission and the Objectives of the institution are communicated to the students, teachers, staff and other stakeholders through the following:

- College Website - <http://www.rmkec.ac.in>
- College Prospectus
- Academic Calendar
- College Magazine
- CDs containing the College Profile
- Conference/Workshop/Seminar Brochures
- Boards displayed at prominent locations within the campus
- First Year Induction Programme
- Staff Meeting
- Industry- Institution Interaction
- Placement Visit

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

- For effective implementation of the curriculum, RMKEC systematically designs and develops effective action plans.
- To meet the worldwide challenges and to fulfill the industry expectations, RMKEC has included additional industry oriented training programs.
- Based on the academic schedule published by the University, an academic calendar is prepared before the beginning of the semester.
- The Process for preparation of Academic Calendar and its adherence are shown in Fig 1.1. Based on the academic calendar, an action plan for the semester is prepared at the college level and communicated to the faculty and students through the HoD concerned.
- The Table 1.1, shown below, is sample action plan prepared at the beginning of the semester

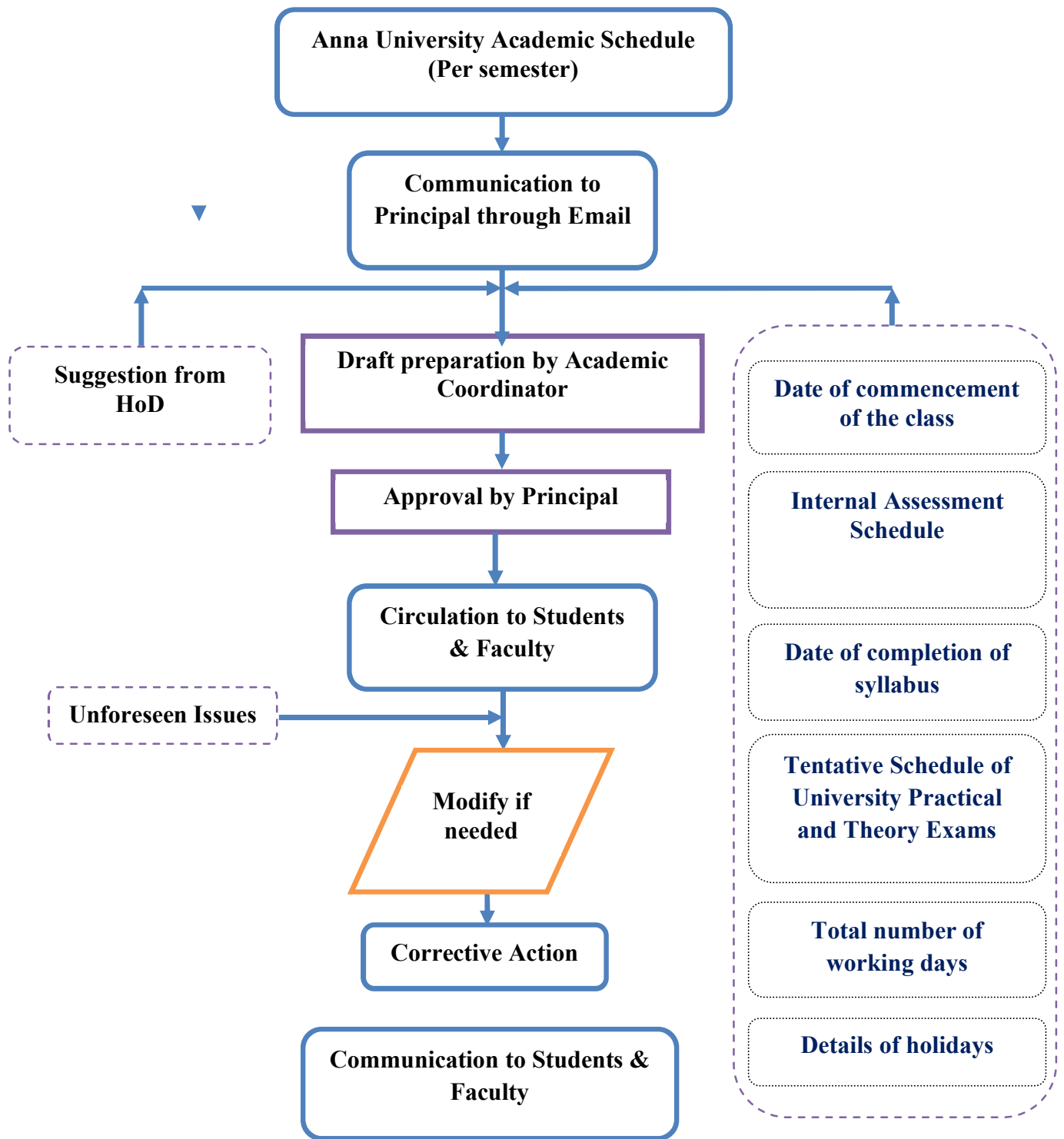


Fig 1.1: Process for preparation of Academic Calendar

Table 1.1 Action Plan for effective implementation of the curriculum

Sl.No.	Description
1.	Allocation of subjects to the faculty based on their specialization by the HoD
2.	Preparation of college Academic Calendar

3.	Appointment of year coordinators, class in-charges, and class counselors for effective monitoring of the academics
4.	Preparation of lecture plan
5.	Preparation of target result for the department
6.	Preparation of time table
7.	Submission of study material & assignment / tutorial questions and academic schedule
8.	Classroom teaching by giving lectures with discussions, chalk & talk, OHPs, PPTs, group discussions, quiz, seminars, visual aids, models, videos, NPTEL course materials etc.,
9.	Submission of course coverage
10.	Conduct of Unit Tests, Internal Tests and Model Exams
11.	Submission of Schedule for Special Classes
12.	Formation of SAE,IEEE,IETE,IE(I),CSI, ICI,ISTE and ISOI Students chapter at the beginning of the semester and conducting association activities (symposium, workshop, intra-department competitions, conference etc.) throughout the year.
13.	Conduct of the Class Committee Meeting and record the Minutes
14.	Conducting Tutorial hours for analytical subjects
15.	Conducting Bridge course for the First Year and Lateral entry students
16.	Arranging Guest lecturer for students relevant to their current courses
17.	Guiding and motivating students to do innovative projects
18.	Arranging in-plant training for the students to have industry interaction
19.	Conduct of software training and Value added courses for the students to fill the academia and industrial gap.
20.	Conduct of tech-club activities like seminars, quiz and group discussion during the last hours every day to help the students towards placement
21.	Appreciation for the rank holders by gifting them books, gold coins and cash awards
22.	Communication to the parents about the attendance shortage of their wards.
23.	Intimating the parents about the academic performance of their ward after completion of Internal Assessments Test and Model Exam.
24.	Conduct of Parent-Teachers Meeting every semester to obtain feedback from parents to improve the academic performance of their ward.
25.	Conduct of Motivation Workshops by FACE and JADE
26.	Conduct of Japanese language orientation programs for career enhancement
27.	Conducting Analytical & Aptitude training for the students
28.	Motivating the students to read Journals and Magazines to enhance their knowledge which in turn creates interest in Research & Innovations
29.	Motivating student teams to participate in conferences, symposium, workshops, paper presentations held in other institutions
30.	Conducting Mock on-line aptitude and Mock Interviews for the Final Year students aspiring for placement

31.	Arranging placement for the Final Year students both on-campus and off-campus in Core companies and IT companies
32.	Result analysis of Internal Assessment Test, Model Exam along with Corrective measures

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

The following practices are followed to improve teaching and effectively translating curriculum.

- Pedagogical training like Wipro Mission 10X for all faculty and Orientation programmes to new faculty by senior Academicians/Experts from Industry.
- Faculty members are encouraged to attend Faculty Development Programmes (FDP) organized by AICTE/ Anna University/College during summer and winter vacation periods, which help in strengthening their knowledge in their field of specialization
- To enhance the practical knowledge of the faculty with which they can transform the students as industry ready professionals through CoE Training
- Digital libraries and E-learning facilities are provided to all the faculty members
- All Faculty members are encouraged to apply for funded projects, publish papers, attend international conferences and various academic programs inside and outside the campus
- Faculty who produce 100% results are acknowledged and motivated
- At the end of every academic year, faculty submits a self-appraisal form which includes the achievements like academic results, number of papers published, details of funded projects, number of student projects guided and the number of FDPs attended
- Teaching aids such as LCD, OHP and computers with internet facilities are provided for better knowledge transfer
- On duty for Ph.D course work, FDP, Workshops and Seminars
- Seed money for registration and travel to participate in Seminars/Workshops and National/ International Conferences
- Well-equipped computer facilities like NPTEL video lecture, e-resources etc. enable teachers to deliver curricula effectively in the classroom

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

Management of RMKEC is committed to impart quality education by providing all the support required for effective implementation of the curriculum through excellent infrastructure and

environment.

- The college relies on the universal method of teaching strategy which is the chalk and talk method. However, creative and innovative methods of teaching are adapted for the effective delivery of curriculum
- All the departments are provided with LCD projectors and public addressed systems
- Each department has an exclusive seminar hall for guest lectures
- Well planned academic calendar with schedules of academic, evaluation and extra-curricular events
- Detailed course materials, lesson plans, class notes, question banks, laboratory manuals, model question papers are prepared by the faculty and are made available to the students.
- The log books are scrutinized by the Head of the Department and the Principal, once in a month, to ensure coverage of topics as per syllabus and teaching schedules.
- Slow learners are given special attention by conducting extra coaching for each subject. Fast learners are motivated to aim for Anna University Ranks and also involve themselves in doing innovative projects.
- In addition to the regular subject classes, the College organizes special lectures by inviting experts from various fields to share their knowledge and experiences with the students.
- HoD's meetings and class teachers meetings are conducted by the Principal periodically to review the teaching learning process, academic progress of the students, grievances if any, and suitable remedial measures are taken.
- Intra-department competitions are organized for the students to enhance their application oriented skills.
- Well-equipped library, computer facilities like NPTEL video lecture, e-resources etc. enable teachers to deliver curricula effectively in the classroom
- Students are encouraged to do research, funded Innovative projects under IEDC, present papers in Conferences and publish papers in Journals.
- Seminars, Industrial Visits, Value Added Courses and Training Programmes to supplement the curricular inputs.
- Pedagogical training like Wipro Mission 10X for all faculty and Orientation programmes to new faculty by senior Academicians/Experts from Industry.
- Well established labs and workshops

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

The Institution has good relation with various industries through specific activities for effective operationalisation of the curriculum through,

- Industry-Institute Interaction through Industry supported laboratory (Value added courses) as shown in Table 1.2
- Industry-Institute Interaction through MoU as shown in Table 1.3

- Industrial Visit
- Guest Lecture/Seminar/Workshop
- In-plant/Internship Training
- Industrial Projects
- Advisory Committee

Table 1.2: Industry-Institute Interaction by CoE (Value added courses)

Sl.No.	Name of the Industry	Name of the Lab	Activities
1	NI Lab view Academy	Lab view Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
2	Mitsubishi Electrical India Pvt Ltd	Factory Automation	Training, Certification, In-house project, Internship and Placement opportunity.
3	ALSTOM India Pvt. Ltd	Protection Switch Gear Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
4	Cognizant Technology Solutions	iOS Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
5	iNautix Technologies	Big Data Analytics Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
6	Doulos Webinars	AAME Training Lab	Training, Certification, In-house project, Internship and Placement opportunity.
7	Infosys Technologies	Campus Connect Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
8	Google Inc.	IoT Lab	Training, Certification, In-house project, Internship and Placement opportunity.
9	Product Lifecycle Management(PLM)	PLM Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
10	Wipro	Embedded System Laboratory	Training, Certification, In-house project, Internship and Placement opportunity.
11	KPIT	Automotive Electronics Laboratory	Training and research oriented knowledge for the Students of EEE, ECE and EIE departments

Table 1.3: Industry-Institute Interaction by MoU

Sl.No.	Name of the Industry	Purpose of MoU	Impact
1.	Mitsubishi Electric India Private Ltd	Workshops, FDP, Internship, Industrial Visit, Employment	Gained ideas on PLC & Electric Drives
2.	Oracle India Private Ltd	Workshops, FDP, Internship, Industrial Visit	Acquired knowledge in Programming skills
3.	National Instruments India Private Ltd	Workshops, FDP, Internship, Industrial Visit	Attained knowledge for doing projects using Lab view software
4.	Hitachi Solutions India Private Ltd	Workshops, FDP, Internship, Industrial Visit, Employment	Developed knowledge in recent trends
5.	Tata Consultancy Services Ltd	Workshops, FDP, Internship, Industrial Visit, Employment	Gained knowledge in Programming
6	M.S.Swaminathan Research Foundation	Workshops, FDP, Internship, Industrial Visit	Initiated interest in research
7	HCL Technologies	Workshops, FDP, Internship, Industrial Visit	Gained knowledge in Programming skills
8	Frontier Lifeline Pvt. Ltd.	Joint research in Bio-Medical Instrumentation	Enhanced the knowledge in Research
9	British Council	Training	Developed Communication Skills
10	World Institute for Engineering & Technology (WIETE),Australia	Workshops, FDP, Internship, Industrial Visit	Gained ideas on recent trends in emerging Technology
11	Next G Tech Research Labs	Workshops, FDP, Internship, Industrial Visit	Gained the knowledge in research
12	Soliton Technologies	Workshops, FDP, Internship, Employment, Plant Visit	Gained knowledge in Electronics & Programming
13	EMC ²	Workshops, FDP, Internship, Industrial Visit	Gained ideas on recent trends
14	Fl Smidth	Projects, Symposium, Special Lectures, Employment, Industrial Visit	Developed the projects in recent trends
15	Wipro Ltd	Projects, Symposium, Special Lectures, Employment, Industrial Visit	Gained knowledge in Embedded System & Programming.
16	Infosys	Project, Symposium, Special Lectures, Employment, Industrial Visit	Developed interest in Programming for getting placements

Institution - Research Bodies Interaction

- The College is recognized as an Incubation Centre sponsored by MSME. (www.startupindia.gov.in/uploads/pdf/List_of_Incubators.pdf)
- The College is recognized by the Department of Scientific and Technology (DST) Govt. of India, in motivating and promoting Entrepreneurial culture among the students
- The College receives grants from Research Bodies such as DST, AICTE, DRDO, ICMR etc.,
- Dr.K. Manivannan, Professor-CSE & Coordinator-IEDC is nominated as National Experts Advisory committee member NCSTC, DST, Government of India.
- Dr.K. Manivannan, Professor-CSE is appointed as Vice-President(Industry and Academia Relations) International Federation of Engineering Education Societies, USA
- Students take up projects in Reputed Research Institutes like DFRL, Bangalore

Institution – Anna University Interaction

- Eminent faculty of the institution are members of Board of Studies, Syllabus Revision Committee and Academic Council of Anna University and they take active part in curriculum revision and in the discussions related to the implementation of various other academic activities and examination systems.
- University sponsored FDPs are conducted specifically on courses given in the curriculum during winter and summer vacation through its separate Centre for Faculty Development.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University?(number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc

The faculty members of the Institute are involved in the development of the curriculum by the University, as shown in the Table 1.4.

Table 1.4: List of Faculty in Board of Study(BoS)- Anna University

Sl.No.	Name of the Faculty	Nature of Work	Domain
1.	Dr. Elwin Chandra Monie	Member	Academic & Examination
2.	Dr. K. Chandrasekaran	Member	Academic & Examination
3.	Dr. K. A. Mohamed Junaid	Member	Academic
4.	Dr. K.R. Senthil Kumar	Member	Academic
5.	Dr. R. Siva Kumar	Member	Academic
6.	Dr. R. Vallaiyuthiyavan	Member	Academic
7.	Dr.S.Sambath	Member	Academic

8.	Dr. Sandra Johnson	Member	Academic
9.	Dr. M Usha Rani	Member	Academic

Based on the feedback from the stakeholders and the decision of the Academic Council, new courses are suggested and recommended to the Board of Studies of the University. The mechanisms for obtaining feedback from the stakeholders are:

Feedback from Students

- Regular feedback from students is obtained in the middle of each semester in standard online format
- Interim feedback is obtained from randomly selected students in each class by the HoD
- In addition, feedback is obtained from the class committee members

Feedback from Parents

- Feedback from parents is obtained during Parents Teachers meetings and during their visit to the College.

Feedback from Recruiters / Industries

- Feedback is obtained from the employers and industries during the placement interviews, and faculty visit to industries for project Competition.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating) university) by it? If 'yes', give details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.

No, since the institute is affiliated to Anna University, it has no flexibility to develop the curriculum for any of the courses offered. However, to reduce the gap in the curriculum and industry, efforts are taken to improve employability as well as higher education. Appropriate Value Added Courses are initiated and developed by the respective Department and Training and Placement Cell to enhance the skill set of industry ready graduates. These courses also quench the thirst of students to become entrepreneurs. Value Added Courses developed for our students are shown in Table 1.2.

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

The mechanism for measuring the curriculum course objectives are:

- Academic Excellence
- Number of placement by campus recruitment

- Number of students employed within a year of passing out
- Number of students engaged in Entrepreneurship and Start-up
- Number of students opted for Higher Education

The institution has formed communication channels among all the stakeholders to ensure that objectives of the curriculum are achieved in the course of implementation. The methods followed to ensure the achievements of stated objectives are:

- Preparation of competency environment and allotment of subjects based on the expertise and experience of the teachers.
- Class Committee meetings are conducted to improve the teaching learning process. Corrective and preventive actions are taken whenever required.
- Periodic assessment is made to analyze process implementation and target realization to ensure that the Institution marches towards achieving its stated Mission and Vision.
- Attainment of course objectives and outcomes are evaluated through online feedback system.
- Students of the institution achieve success in various inter-college and intra-college competitions. The alumni of the institution are securing top positions in various Organizations/Institutions.

1.2 ACADEMIC FLEXIBILITY

1.2.1 Specifying the goals and objectives give details of the certificate/diploma/ skill development courses etc., offered by the institution.

In order to acquire knowledge and the required skill and to showcase ability, RMKEC organize various Training Programs as shown in Table 1.5 and the Value Added Courses are shown in Table: 1.2

Table 1.5 Training programmes offered to the students at various semesters

Semester	Training Programme	Duration
1 st	Orientation Programme by Mr. Jayaprakash Gandhi	Half a Day
	Personality Development Training Programme by RIPE	24 hours (4 days)
2 nd	Training programme on scientific learning skills by MAX Academy	Half a Day
	Career consulting Programme by Mr.T.Raghunath	Half a Day
	Motivation Programme by B.V.Pattabhiram	Half a Day

3 rd	Communication Skills BEC Training Programme by SMART Resources	35 hours (5 days)
	Personality Development Programme by “Jade Training Resource Pvt. Ltd.”	2 days
4 th	Communication Skills BEC Training Programme by SMART Resources	21 hours (3 days)
5 th	Personality Development Workshop by Mr.Suresh Punjabi	2 days
	Infosys Campus Connect Training for selected Students	After working hours
6 th	Aptitude Training Programme by SMART Resources	2 days
	Infosys Campus Connect Training for Selected Students	After working hours
	Resume Writing Skills Workshop	Half a Day
7 th	Aptitude test for campus interview preparation	During Test
	Mock Interview – Tech & HR	2 days
	Aptitude Training Programme by SMART Resources	3 days
	Refresher Training before Campus interview	2 days
8 th	Motivation and Aptitude Training after 10 companies visit for yet to be placed students	2 days

Apart from this, other training programmes are organized to enrich the skill development.

- Japanese Language Proficiency Test (JLPT)
- Spoken Tutorials
- GRE / TOEFL /CAT/GATE
- Preparatory course for Civil Services Examinations
- Effective SoP / LoR writing
- Weekly online programming tests (Skillrack Tests).
- Company specific online tests by FACE are conducted
- Innovation Entrepreneurship Development Centre (IEDC)
- E-Cell
- Learn wise certification program
- Mock training on soft skill development
- NPTEL on line certification program
- NSS

1.2.2 Does the institution offer programmes that facilitate twinning? If ‘Yes’, give details.

Not Applicable

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

Range of Core offered by the University	89% of the subjects are core subjects from I to VIII semester for Under Graduate students and 62% of the subjects are core subjects for Post Graduate students prescribed by Anna University, Chennai (https://www.annauniv.edu/academic_courses/curr_aff.html)
Elective options offered by the University	Nearly 11% of the subjects are offered as Electives from VI to VIII semester for Under Graduate students and 38% of the subjects are offered as Electives from I to IV semester for Post Graduate students by Anna University, Chennai. (https://www.annauniv.edu/academic_courses/curr_aff.html)
Choice Based Credit System and range of subject options	As per Anna University Regulations 2008 & 2013
Courses offered in modular form	<ul style="list-style-type: none"> ➤ Each Course with 5 Units ➤ Completed within 45/60 Hrs ➤ Maximum Hrs for Theory & Practical ➤ Minimum Hrs for Tutorial ➤ Minimum 1 credit to Maximum 12 credit course ➤ Each course with Objectives/Outcome ➤ Each course prescribed with Text/Reference Books
Credit transfer and accumulation facility	As per Anna University Regulations 2008 & 2013
Lateral and vertical mobility within and across programmes and courses	<ul style="list-style-type: none"> ➤ Lateral entries are permitted for students who complete diploma to pursue their Engineering degree from the Second Year. ➤ Students are given absolute freedom to move across various disciplines for their project work. ➤ Students may choose their project guide from any department of the college ➤ Students can use any laboratory equipment available in the Campus for the purpose of project work and innovation

Enrichment courses	<ul style="list-style-type: none"> ➤ Soft Skill Development Programmes ➤ Technical Skill Development Programmes ➤ Programming Skill Development Programmes ➤ Management Skill Development Programmes ➤ Entrepreneurship Awareness Camps ➤ Patent and IPR Awareness Programmes ➤ Civil Service Academy Programmes
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1.2.4 Does the institution offer self-financed programmes? If ‘yes’, list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

All the programmes offered by the Institute are self-financing. The following is the list of programmes offered by the Institute:

UG Programmes 4 Year Course	Sl.No.	Programme Name
	1	Computer Science and Engineering
	2	Electrical and Electronics Engineering
	3	Electronics and Communications Engineering
	4	Mechanical Engineering
	5	Civil Engineering
	6	Information & Technology
	7	Electronics & Instrumentation Engineering
PG Programmes ME/MBA 2 Year Course	1	Computer Science and Engineering
	2	Power Electronics & Drives
	3	Applied Electronics
	4	VLSI Design
	5	Master of Business Administration
Admission	Admission process is based on the Guidelines and Regulations provided by Directorate of Technical Education, Government of Tamil Nadu and Anna University, Chennai Being a Telugu Minority Institution, 50% of the intake by Single Window System by Tamil Nadu Engineering Admission and the remaining 50% by the Management, based on Consortium of Professional Self Financing Association Ranking	
Curriculum	Curriculum is designed by Anna University and implemented by the college through well designed Teaching-Learning Process	
Fee structure	Fees for all the courses are fixed based on the recommendations of fee fixation committee, the Government of Tamil Nadu First generation graduate scholarships and State/Central government Scholarships are made available. In deserving cases tuition fee is waived	
Teacher qualification and salary	As per AICTE Norms and Standards	

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If ‘yes’ provide details of such programme and the beneficiaries.

Yes, the college provides additional skill oriented programmes, relevant to regional and global markets. They are shown in Table 1.6

Table1.6 List of skill oriented Programmes

Sl.No.	Skill Development Programmes	Beneficiaries
1.	Training on Lab VIEW Software	Regional & Global
2.	Training on Factory Automation Software	Regional & Global
3.	Training on Alteryx Software	Regional & Global
4.	Training on Mobile Applications using IOS	Regional & Global
5.	Training on Big Data Analytics	Regional & Global
6.	Training on ARM Microcontroller	Regional & Global
7.	Training on C and C++ programming	Regional & Global
8.	Training on Embedded System	Regional & Global
9.	Training on 3D Modeling & Designing	Regional & Global
10.	Training on Automotive Electronics	Regional & Global
11.	Training on Structural Analysis and Design using NISA	Regional & Global
12.	Training on REVIT Architecture and REVIT Structure	Regional & Global
13.	Training on Robotics and Computer Applications	Regional & Global
14.	Training on Rational Application Development	Regional & Global
15.	Training on Java Programming	Regional & Global
16.	Training on Communication Skills –BEC	Regional & Global
17.	Training on Personality Development	Regional & Global
18.	Training on Scientific Learning Skills	Regional & Global
19.	Training on Aptitude Skills	Regional & Global
20.	Training on Japanese Language	Regional & Global
21.	Training on SoP / LoR writing	Regional & Global
22.	Training on Entrepreneurship Skills	Regional & Global
23.	Training on Start up Skills	Regional & Global

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

Not Applicable

1.3 CURRICULUM ENRICHMENT

1.3.1 Describe the efforts made by the institution to supplement the University's curriculum ensure that the academic Programmes and Institutions goals and objectives are integrated?

The efforts to supplement the University's curriculum, the Institution encourages to ensure the academic Programmes, Institutions goals and objectives are integrated though,

- Guest Lecture
- Value Added Courses
- Seminars /Workshops/Conference
- Industrial Visits/Internship
- Innovative Projects
- R&D and consultancy activities
- Employment
- Entrepreneur & Start-up initiatives

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

- As an Affiliating type of Institution, the college is bound to follow the guidelines prescribed by the University. University does not allow any modification or changes in the curriculum.
- The Institution provides additional training and hands on practice to the topics which is required for the dynamic employment market.
- The institution has formed an Industry Institution Interaction cell to fill the gap between academia and the industry for knowledge update. The cell invites industry experts for the Guest lecture, seminar, workshop etc,
- Provision for Guest Lectures, Industrial Visits, In-Plant Training, Value Added Course and Innovative Project Cell competitions have been in practice.
- The presence of IEDC and E-Cell encourage the students to do **P**-Problem Identification, **P**-Prototype, **P**-Product and **P**-Profit, which help them to become an Entrepreneur and set an example as a Job Creator instead of a Job Seeker.
- Training and Placement Cell provides special training and tailor made value added courses to fulfill the expectations of the industry
- The students are encouraged to give solutions to the industry oriented problems for

designing/developing prototypes to leverage new technology for the growth of Small and Medium Enterprises in and around the College.

- The Management encourages the students by giving cash awards magnanimously as recognition of their co-curricular and extra-curricular achievements.
- The College organizes technical knowledge and skill oriented programmes in collaboration with TCS,CTS,HCL, IBM, Infosys, i-Nautix , EMC², Mitsubishi, NI, Wipro, Johnson Controls, Arm University-UK,CISCO etc.,

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

The efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental education, Human Rights, ICT etc., are as follows:

Gender Issues

- Anti-Ragging Cell, Grievance Redressal Cell and Women's Grievance Cell
- Women's Grievance Cell
- Women counselors
- Women's hostel in the campus
- Girls' retiring room in the campus
- Health club facilities for ladies and gents separately
- Encouragement for co-curricular & extracurricular activities for women
- Equal representation to women in all student council
- Equal opportunities to both the genders in terms of admissions, employment, training programmes, sports activities & co-curricular activities

Climate Change and Environmental Education

- Tree plantation
- Rain Water Harvesting
- In house vegetable cultivation
- Sewage treatment plant / water reuse
- Bio-gas plant
- Plastic free campus
- Green campus the whole year round
- Environmental Science and Engineering Course
- National Science Day, Earth Day celebrations and Independence Day celebrations
- Industrial visits to water treatment plants
- Awareness programmes initiated by NSS

- Blood Donation Camps

Human Rights:

- Professional ethics Course
- Awareness programmes on IPR and human rights
- Legal awareness classes
- Anti-ragging cell

ICT Application for curriculum enrichment

- E-resources
- NPTEL video lectures
- GATE coaching (on-line mode)
- Open Source courseware by using MOOC
- LATEX training
- Wi-Fi enabled campus

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

Details of the various value-added courses can be referred from Table 1.3 and details about the Enrichment Programmes to ensure holistic development of students are given in Table 1.7.

Table 1.7 Enrichment Programmes offered by the Institution for holistic development of the students.

Moral and ethical values	<ul style="list-style-type: none"> • Daily Prayer in Temple inside the Campus • Every week Friday Holy Mass • Every week Friday Prayer in Mosque • Blood donation camp • Support to orphanages • Financial support to critically ill persons • Eco-friendly and plastic-free environment • Celebrations of all festivals • Student development scholarship fund • Professional Ethics Course
Employable and life skills	<ul style="list-style-type: none"> • Training Programmes for personality development and Communication Skills • Employability training Programs • Industry oriented value added courses
Better career paths	<ul style="list-style-type: none"> • Coaching for GATE Examination • Placement training • Industrial training / internship • Choice of electives • Library resources

	<ul style="list-style-type: none"> • Interaction with alumni • IEDC (Innovation and Entrepreneurship Development Centre) • Invited talks by eminent personalities from Industry / Academia • Department of Training and Placement Cell • Campus recruitment by core/software companies
Community orientation	<ul style="list-style-type: none"> • Compulsory community service • Lectures on different social issues • NSS camps • Social survey on waste management • Energy auditing • Computer training for local community

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

Feedback on the enrichment of Curriculum is obtained from Alumni and Industry periodically from the point of view for improving employability and the curriculum gap is identified. Table 1.8 gives few curriculum gaps identified in EEE Department and the action taken.

Table1.8 Steps taken to convey gaps in enriching curriculum

Sl.no.	Feedback from stakeholder(Curriculum Gap)	Name of the Course/Year/Sem	Date of Step Taken	Explanation	Submitted to
1.	Apply Evolutionary techniques to control power system parameters	Power System Operation & Control/ III/VI	26/06/2015	Requested to introduce Evolutionary optimization techniques to control power system	Dr. Chandra Monie Principal/RMK EC Member, Board of Study, Anna University
2.	Apply IoT to Embedded systems	Embedded System III/VI	26/06/2016	Requested to add the topic of Internet of Things in Embedded System syllabus	Dr. Chandra Monie Principal/RMK EC Member, Board of Study, Anna University

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

Feedbacks from students, parents, alumni and industry are obtained; analyzed and corrective measures are taken. The monitoring and evaluation of quality enrichment programs are carried out at the Department level. The quality of enrichment programmes are evaluated by,

- Performance of the students in the examinations conducted by various CoE
- Performance/participation in Skillrack/ Hackerrank/ Makethon/ Hackathon competitions
- Participation in technical quiz competitions
- Number of innovative projects carried out
- Papers presented in seminars and prizes won
- Placement statistics

1.4 FEEDBACK SYSTEM

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

Faculty members of RMKEC are actively involved in the design and development of curriculum prepared by the University, as Board of Studies (BoS) members. They have the responsibility to frame the syllabus including all the required details. The list of faculty in the BoS is given in Table 1.4

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes, the institute has a formal mechanism to obtain feedback from students and stakeholders on curriculum. It is communicated to University through the member of BoS as in given table 1.5. This feedback mechanism is implemented at teaching and learning process. The following are the various mechanisms of feedback obtained from stakeholders:

Parent's Feedback:

- The Parent's feedback is obtained during parent teacher meeting (PTA) as well as when parents visit college for some purpose

Industry Feedback:

- As Institution has MoUs with various companies, industry feedback is obtained during

placement, project exhibition/competition, IEDC meetings, guest lecturers / workshops and seminars

Staff Feedback:

- Staff feedback is obtained once every semester and randomly based on the requirement

Alumni Feedback:

- Alumni feedback is obtained during alumni function which is regularly conducted twice a year.

The feedback obtained through the stakeholders is communicated to the Anna University to incorporate changes in curriculum and for introduction of new courses

1.4.3 How many new programmes /courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)

- 23 new courses were introduced by the institution during the last four years
- To meet the changing industry demands and to encourage research and development among the younger generation in frontline areas of Science and Technology, these courses are organized as mentioned in Table 1.7

1.4.4 Any other relevant information regarding curricular aspects which the college would like to include.

In addition to the Curriculum Delivery, the institution focuses on CoE activities, Training Programs, Intra/Inter department competitions and workshops. Apart from this, for the enhancement of students' career we have initiated the following ,

Higher Education Cell

- The Management of RMK Engineering College lays emphasis on the career counseling for the Final Year students for pursuing higher studies in abroad or in India.
- There is a Higher Education Cell Coordinator in each Department.
- The cell organizes seminars on “Higher Education at various Universities Abroad” periodically.
- Cell organizes one-to-one counseling sessions on preparations and procedures for applying higher studies programme by the Eminent University / Institution Representatives.
- The cell collects the data of the graduating students who aspire to study abroad and to maintain a comprehensive database through the department coordinator

Innovation and Entrepreneurship Development Center (IEDC)

- This center provides financial support to students for developing Innovative products.
- Financial support up to a maximum Rs.1 lakh is provided for each prototype. Apart from this, mentoring and infrastructure support are provided for these projects.
- Programs and Camps are arranged to promote Technology based Innovation and Entrepreneurship initiatives among the students.

CRITERION II : TEACHING - LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

The institution was established in 1995 and in a short span of time has grown into one of the leading technical institutions in the country. Academic performance, Infrastructure, faculty strength, add-on courses etc. serve itself as publicity to the institution. Publicity is also ensured in the following ways.

A. Publicity

- College website (www.rmkec.ac.in) provides a complete insight into all the facilities available in the institution.
- College Prospectus and a CD that provides a virtual campus tour are prepared and distributed to all the students and their parents who aspire to join RMKEC.
- Rankings based on Anna University results and University ranks are published in leading news papers by the news agencies. RMKEC is ranked consistently as one of the top engineering colleges in the state.
- The current students and alumni of the College are our real ambassadors in providing enough publicity in the admission process.
- Apart from this, our institution is a recipient of many prestigious awards at the national and international level which provides natural publicity to the institution. To name a few:
- NIRF (National Institute Ranking Framework) 2017 ranked RMKEC in the 87th position at the national level and 6th position among the self-financing engineering colleges at the state level. The information is publicized in the <https://www.nirfindia.org/EngineeringRanking.html>.
- The college is a recipient of the National Award “Bharatiya Vidya Bhawan” for having the overall performance among various engineering colleges by the Indian Society for Technical Education (ISTE) New Delhi in 2008.
- The College has been rated as one of the top 20 engineering institutions across India for having the best academia-industry tie-up based on a AICTE - CII Joint Survey.
- Many leading magazines publishes ranking of the technical institutions at the national level once a year which provides a wide publicity among the public (<http://rmkec.ac.in/rank/rank.php>). Few such rankings are given below:
- **Ranked 51st** among the Top100 Private Engineering Colleges in India 2016 by "The Week"

- **Ranked 33rd** among Top Private Engineering Colleges in South India by “The Week.”
- Career 360 has given AAA status to R.M.K. Engineering College among the 1000 best Engineering Colleges in India.
- Excellent placement record has its own inherent publicity. Dataquest magazine conferred “**Excellent in placements 2016**” award to RMKEC.

B. Transparency

- The admission process is completely transparent. The eligibility and admission process is clearly specified in the prospectus.
- The single window system admission is done by Anna University as per the University rules and regulations.
- The seats under management quota are filled through another single window system, consortium of self-financing colleges in Tamil Nadu.

2.1.2 Explain in detail the criteria adopted and process of admission (i) merit (ii) common Admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other to various programmes of the Institution.

As a Linguistic Minority Institution, Tamil Nadu Engineering Admission(TNEA) allots 50% of seats through Government Quota and remaining 50% through Management Quota.

ADMISSION PROCESS

Admission process and eligibility criteria for UG/PG programmes are given below:

a. UG / PG / Ph.D Programmes

Programme	Admission Process	Eligibility Criteria
UG (BE /B Tech)	Admission through Single Window Counseling system (50%) (Or)	As prescribed by DoTE (State Govt.); Reservation as per State Government Policy
	Entrance Test by consortium of Self-financing colleges in Tamilnadu (50%)	
	Lateral Entry scheme	Pass in Diploma Course for Direct Second Year
PG (ME/M Tech /MBA)	Based on the Tamil Nadu Common Entrance Test (TANCET) conducted by the University / GATE score for ME/M Tech	As prescribed by AICTE- New Delhi

Ph.D	Based on the entrance test and interview conducted by the University	As prescribed by the Affiliating University
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Minimum Marks prescribed by the Govt. of Tamilnadu

Candidates belonging to different communities should have obtained the following minimum marks.

For UG: I year admission	OC & BCM	BC	MBC/DNT	SC	ST
Average Marks in Maths, Physics and Chemistry, Vocational subjects under part III Lateral Entry: Average marks in Pre final and Final semester	55%	50%	45%	PASS	PASS

For Students from other states

As per Tamil Nadu Acts No.3 of 2007, dated 05.03.2007 and G.O. (Ms) No.77 HE (J2) Dept, dated 05.04.2007, the marks obtained by the students in the relevant subjects in the qualifying examination conducted by various Boards or Authority shall be equated with the marks obtained by the students in the same subjects in the qualifying examination conducted by the State Board of Tamil Nadu by adopting the method of normalization. In the case of candidates who have qualified from National Boards namely CBSE and ICSE, the highest mark obtained in the relevant subjects by the candidates at the National Level alone will be taken into consideration for normalization.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

The minimum and maximum cut-off marks for admission, through single window system, to the UG programmes offered by the college in the last four academic years are presented in the following tables.

		ACADEMIC YEAR : 2013-14										ACADEMIC YEAR : 2014-15																
SI · N o	BRAN CH	DOTE					MANAGEMENT					DOTE					MANAGEMENT											
		Regular		Lateral Entry		Min	Regular		Lateral Entry		Min	Regular		Lateral Entry		Min	Regular		Lateral Entry		Min							
		Max	Min	Max	Min		Max	Min	Max	Min		Max	Min	Max	Min		Max	Min	Max	Min		Max	Min					
1	CE	194.7	136.3	94	84.25	130	88.5	66.3	197.3	158.3	93.33	60.86	198	120	88.79	63.5	196.3	130	88.5	66.3	197.3	158.3	93.33	60.86	198	120	88.79	63.5
2	CSE	198	130.5	96	77.08	125.3	91.08	74.92	199	111.8	95.21	81.93	195.7	113.3	84.5	84.5	198.7	125.3	91.08	74.92	199	111.8	95.21	81.93	195.7	113.3	84.5	84.5
3	EEE	196.5	78.75	95.83	88.58	121	95.92	68.42	197.5	130	97.71	82.43	194.7	123.3	86.43	86.43	199.7	121	95.92	68.42	197.5	130	97.71	82.43	194.7	123.3	86.43	86.43
4	ECE	197	144.8	97.58	89.25	199	95.83	72.5	199.2	136	98.21	72	199.7	129	92.07	72.57	199	124.8	95.83	72.5	199.2	136	98.21	72	199.7	129	92.07	72.57
5	EIE	195	105	88.67	62.42	121.5	89.67	73.33	195.3	157.3	91.71	75.29	190.3	131.3	80	80	197.7	121.5	89.67	73.33	195.3	157.3	91.71	75.29	190.3	131.3	80	80
6	ME	196.3	154.3	96.17	83.33	199	89	72.33	198.3	165	96.07	81.79	195.3	128.8	89.71	89.71	199	131.8	89	72.33	198.3	165	96.07	81.79	195.3	128.8	89.71	89.71
7	IT	192.5	122.3	95.67	66.17	197.3	92.67	71.25	195	106.3	88.58	70.29	195.7	122.5	80.86	79.83	197.3	121.5	92.67	71.25	195	106.3	88.58	70.29	195.7	122.5	80.86	79.83

Criterion II : Teaching - Learning And Evaluation

		ACADEMIC YEAR : 2015-16										ACADEMIC YEAR : 2016-17									
SI · N o	BRA NCH	DOTE					MANAGEMENT					DOTE					MANAGEMENT				
		Regular		Lateral Entry			Regular		Lateral Entry			Regular		Lateral Entry			Regular		Lateral Entry		
		Max	Min	Max	Min		Max	Min	Max	Min		Max	Min	Max	Min		Max	Min	Max	Min	
1	CE	196	174	90.86	75.93	194.3	127.5	88.5	64.79	192.8	122.8	91.18	66.4	196	125	80.28	68.71				
2	CSE	198.5	169.8	95.64	65.93	190.3	130.8	86.07	66	197	153.8	97.21	75.61	198.7	120.8	93.33	63.31				
3	EEE	196	151.5	94.71	78.79	198.3	130.5	93.93	73.07	195.3	12	88.39	76.4	191.7	120	93.24	67.91				
4	ECE	197.8	155.8	97.93	80.86	195	120.3	94	70.36	199	172.8	96.46	62.31	199	123	90.71	69.16				
5	EIE	194.8	131.5	83.14	80.79	190	132.3	--	--	193.3	153.3	73.76	73.76	177.3	122	--	--				
6	ME	197.8	163.8	94.43	84.29	193.3	125	92.43	69.57	195.5	134.8	90.8	77.64	194.3	128	86.93	64.61				
7	IT	195	120.3	92.5	91.79	187.8	123	--	--	192.3	160.3	80.49	80.49	185.7	133	--	--				

Comparison of minimum and maximum cutoff marks with other colleges of the affiliating university within the city/district.

The following graph provides a comprehensive view of the maximum cutoff marks of the students admitted in various colleges in the district. (Velammal Engineering College (VEC); Veltech Engineering College (Veltech); Vel Tech Multi Tech Engineering College (VTMT); T.J.S. Engineering College (TJSEC).

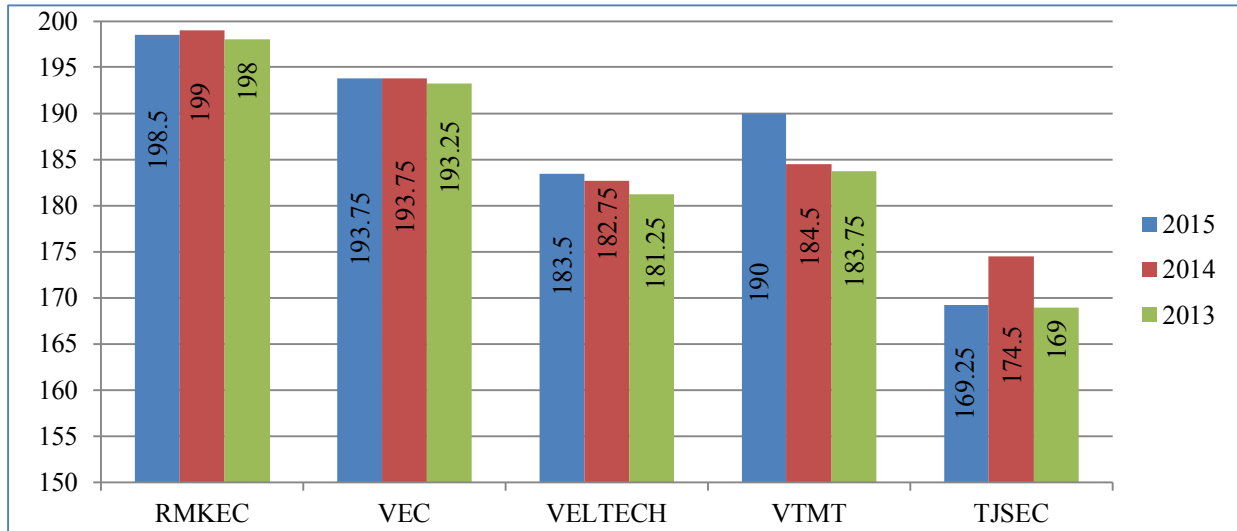


Figure 2.1 TNEA Cut-off for the Academic Year 2013-14, 2014-15 & 2015-16

2.1.4. Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort how has it contributed to the improvement of the process?

Yes. The institution has a review process for admissions.

Single Window System

The admission process is reviewed every year by the Coordination Committee for Tamil Nadu Engineering Admissions under the chairmanship of The Vice Chancellor constituted by the Government of Tamil Nadu. Major Outcomes of the admission process is carried out through Single Window System as per the rank secured by the students following the admission reservation policy prescribed by the Government of Tamil Nadu. This system makes the admission processes very transparent. The present system of admission introduced after the analysis of the student profile, gives equal opportunity for the students hailing from rural areas.

Management

The seats under management quota are filled through another single window system, consortium of self-financing colleges in Tamil Nadu.

The following is the number of students admitted under Government and Management Quota with different cut-off marks.

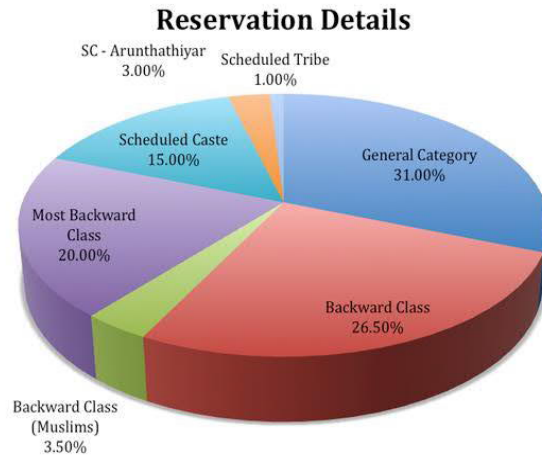
CUT-OFF	YEAR 2013-14				YEAR 2014-15				YEAR 2015-16				YEAR 2016-17			
	GQ	MQ	MI	LAP	GQ	MQ	MI	LAP	GQ	MQ	MI	LAP	GQ	MQ	MI	LAP
>=195	54	1	20	10	143	0	10	0	103	0	2	0	17	0	16	0
>=190 & <195	221	1	18	6	107	3	24	1	156	2	22	1	154	0	27	0
>=180 & <190	88	19	52	6	47	15	43	18	41	26	69	10	106	11	50	3
>=170 & <180	32	48	63	13	18	27	56	9	17	29	49	13	33	26	40	12
>=160 & <170	12	48	53	8	8	31	39	9	4	24	41	8	12	33	37	8
<160	41	108	106	16	16	62	80	11	6	51	75	29	15	80	70	21
TOTAL	448	225	312	59	339	138	252	48	327	132	258	61	337	150	240	44

*GQ – Government Quota, MQ- Management Quota, MI- Minority, LAP- Lapsed

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

The institution follows the reservation policy of the Tamil Nadu government. The seats are reserved for the students from SC/ST, OBC, candidates with varied disabilities, outstanding achievers in sports and other extracurricular activities.

The pie chart below shows the details of reservation of engineering seats, applicable only to Tamil Nadu native candidates, to different segments of our society.



NUMBER OF STUDENT ADMITTED - B.E								
CATEGORIES	YEAR 2013-14		YEAR 2014-15		YEAR 2015-16		YEAR 2016-17	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
SC	48	44	31	37	23	35	35	32
ST	0	3	2	2	1	3	1	1
OBC	386	190	275	179	279	185	295	179
GENERAL	282	91	160	91	172	80	169	59
TOTAL	716	328	468	309	475	303	500	271

NUMBER OF STUDENT ADMITTED - M.E								
CATEGORIES	YEAR 2013-14		YEAR 2014-15		YEAR 2015-16		YEAR 2016-17	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
SC	6	4	1	6	0	2	0	3
ST	0	0	0	0	0	0	0	0
OBC	37	47	17	49	14	32	0	9
GENERAL	10	13	2	18	2	5	0	0
TOTAL	53	64	20	73	16	39	0	12

Other reservations: Apart from the general reservation of seats Anna University also provides reservation for the following special categories: Children of ex-service men (150); Children of freedom fighters (10); Differently abled (3 %) and Sports Quota (100).

Economically weaker sections: To encourage the students, Management Scholarship and Alumni scholarships are awarded on merit basis to students from economically weaker sections. Management also waives the transportation charges to the needy students. College makes arrangement for various scholarship schemes for the benefit of the students. Cognizant

Technology Services (leading IT service provider) offers scholarship (Rs.30, 000 per year) to academically deserving and economically weaker students.

Any Other (First Generation Graduates): The first graduate students from rural family are given Rs.20000/- waiver in tuition fee as directed by the Government of Tamilnadu. The college admits students through fee waiver scheme as per AICTE and Anna University norms.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e reasons for increase / decrease and actions initiated for improvement.

Consistent academic performance, the infrastructure facilities, faculty strength, effective teaching- learning process, add-on courses etc. created “RMKEC Brand” among the public which attracts the students towards the institution.

Astounding placement records and awards conferred on the institution also serves to enhance the brand image of the institution which ensures the increasing demand for admission to the college.

The following is the list of students admitted in each academic year showing that the seats are completely filled up.

SL. No	Programme	2013-2014			2014-2015			2015- 2016			2016-2017		
		Sanctioned	Admission	Demand	Sanctioned	Admission	Demand	Sanctioned	Admission	Demand	Sanctioned	Admission	Demand
1	CE	120	119	1:1	120	119	1:1	120	119	1:1	120	117	1:1
2	CSE	120	119	1:1	120	119	1:1	120	120	1:1	120	120	1:1
3	ECE	180	179	1:1	180	180	1:1	180	180	1:1	180	180	1:1
4	EEE	180	176	1:1	120	120	1:1	120	120	1:1	120	120	1:1
5	EIE	120	112	1:1	60	60	1:1	60	59	1:1	60	58	1:1
6	IT	120	104	1:1	60	60	1:1	60	60	1:1	60	60	1:1
7	ME	240	235	1:1	120	119	1:1	120	120	1:1	120	116	1:1

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The differently abled students are provided with adequate facilities to make their stay at the campus comfortable. Few measures that are taken to ensure the safety and comfort of these students are given below:

- Wheel chairs are provided (if needed)
- Classrooms are arranged in the ground floor with front-row seating arrangement and comfortable furniture
- Examination halls are arranged in the ground floor
- Special rest rooms are provided
- Special care in the laboratories and workshops are given
- Health care center with in the campus for immediate medical assistance is made available.
- Additional health care is provided at a concessional rate in the leading hospitals such as Billroth hospital, Chennai which have a tie up with the trust.
- Well -laid roads for safe transit in the campus.
- Manual help is provided in the library and canteen
- Other facilities, on issue basis such as arranging a scribe, extra time for examinations etc are provided with prior permission from the affiliating University.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If yes, give details on the process.

Yes. The institution assesses the students' needs in terms of knowledge and skills before the commencement of the program by the following measures.

Induction Day:

- The institution organizes Induction day for the freshers at the beginning of the year. The guests of honour of repute provide insights into “Engineering Education” and “Skills needed for employability”. Chairman, Vice Chairman and Secretary enlighten the freshers on the facilities available at the campus and the need for effective utilization of them for overall development. Advisors, Principal and Academic coordinator provide a complete picture of the institution and orientation for the transformation of school children to “Future technocrats”.

- The Heads of the Department and faculty members interact with the students during the orientation programme. They address on various issues such as rules and regulations of the college, Library facilities, Sports, Research facilities, Computer facilities, and other facilities including value added courses, Centres of Excellence (CoEs) etc. and a visit to all these facilities are arranged for the freshers. This provides awareness to the students about the facilities and features of the institution.
- The orientation programme is also used as a platform to communicate the Anna University norms on attendance stipulations, Internal assessment system etc.

Assessment of needs in terms of knowledge and skills:

Immediately after the commencement of the programme, students' needs are assessed through a counseling process (by the class counselor) in terms of their performance in school, family background, and skills sets in co-curricular and extracurricular activities and recorded in the counseling books.

The performance of students in their qualifying examinations provides a basic understanding of the students' caliber and their academic needs and the subjects studied, for example, vocational students need physics, chemistry and mathematics, similarly students who studied biology in Tamil Nadu and other states' students lack computer programming skills.

In addition, one-to-one counselling sessions with the faculty and general observation students also help in the assessment of students' needs. based on the outcome, various bridge courses are conducted to fulfill the students' requirements for the programme.

2.2.3. What are the strategies drawn and deployed by the institution to bridge the knowledge gap of the enrolled students to enable them to cope with the programme of their choice? (Bridge / Remedial / Add-on/ Enrichment Courses, etc.)

The needs of the students are assessed as given in section 2.2.2 and various bridge courses and add-on courses are conducted.

Bridge Courses / add-on courses

1 year students:

- Our college conducts add-on courses on mathematics.
- Course on computer programming is conducted for students who have not studied computer programming in higher secondary education.

- Students from vocational groups and from vernacular medium are given special coaching on English, Physics and chemistry.

Lateral Entry students:

- The college offers Bridge Courses for lateral entry students on mathematics and department subjects for smooth transition from polytechnic college to engineering college.
- The Motivational programmes are conducted for the enrolled students by leading corporate trainers and Career Consultants in the industry with the objective of encouraging the students to excel and achieve in studies.

Remedial Classes

- Remedial classes are conducted for the slow learners to improve their academic performance. Continuous evaluation system of the University and the institution provide ample opportunities to the faculty to understand the students' caliber and plan the necessary remedial measures to be taken.
- Slow learners are provided extra care during classes and special coaching classes are conducted after college hours.
- Students who have studied in vernacular medium have difficulty in adjusting to the classroom instructions in English. Such students are given special classes to make them at ease with the academic requirements.
- Other remedial measures taken for the students are supplementing the class notes with additional study material in the form of handouts
- Discussion of University questions and answers and conduct of additional tests of shorter duration.

Add-on courses / Enrichment courses

Additional training programs are offered by the placement cell, E-Cell and higher education cell to whet the technical skills / employability skills / entrepreneurial skills of the students.

Higher Education Cell organizes coaching classes for competitive examinations and presentations on various avenues for higher education from 2nd year onwards. Innovation and Entrepreneurship Development Centre (IEDC) conducts awareness camps, Entrepreneurship Development Programmes and innovative project competitions. Placement cell arranges training and motivation programmes right from first year.

Centres of excellence are established with industry partners and various “industry specific / branch specific” value added courses are given to the students.

S.No.	Name of CoE	Industry
1	Telecom	Wipro Ltd.
2.	Embedded systems	Wipro Ltd.
3.	Product Life Cycle Management (PLM)	-
4.	PRP (Java)	Wipro Ltd.
5.	Automotive Electronics	KPIT
6	Big Data Analytics	iNautix Technologies
7	Mobility	CTS
8	Information Security	TCS
9	Front End Technology	Virtusa Polaris
10	Building Management System	Johnson Controls India
11	Zoho Enrich Programme	Zoho Corporation
12	Factory Automation / IoT	Mitsubishi Electric India Ltd.
13	Microsoft Dynamics	Hitachi Solutions

Partial list of the add-on programmes organized is as given below:

TRAINING PROGRAMMES FOR B.E./B.TECH.STUDENTS			
Year	Training Programme	Personality Development Programme.	Value added courses
I Year	1. Creative thinking workshop 2. Life Skills workshop Engineering Orientation 3. “Stepping Stone” Workshop	1. Personality Development- Mr. Jayaprakash A. Gandhi, Educational Consultant. 2. Motivation- Mr.B.V.Pattabiraman. Career Consultation- Mr.T.Raghunath.	
II Year	1. Business English Certificate International certification from Cambridge University, UK. 2. Campus Readiness Programme-SMART resources	1. Personality Development Programme-JADE training resources.	EMC / Oracle / IBM-DB2 / RAD / Tivoli /RFT training for CSE and IT students Embedded Systems for EEE students

<p>III Year</p>	<p>1. Aptitude training and Resume writing skills 2. Infosys Campus Connect Certification course</p>	<p>1. Interview Skills Improvement-“Mission Possible” by Mr.Suresh Punjabi</p>	<p>Ericsson-Empower University Program / CISCO-CCNA for ECE students</p>
<p>IV Year</p>	<p>1. Aptitude training and Resume writing skills 2.Refresher training 3. Company specific aptitude testing</p>	<p>1. Two days motivation programme</p>	<p>MS - Project & Primevera, AutoDesk certified Revit Architecture and Revit Structure for Civil students NI - LABVIEW Academy for EIE students PLM for Mechanical Engineering students</p>

2.2.4. How does the college sensitize its staff and students on issues of gender, Environment etc.?

The institution practices the spirit of equality and there is no partiality shown to students or staff on basis of gender, caste or colour. The following actions are taken on the issues of Gender:

- Facilities provided to the faculty and the students are common and no discrimination is shown in any form based on gender, religion, caste or colour inside the campus.
- The sanctity of the religious practices is preserved with due respect. For example, Muslim students and faculty can attend prayers on Fridays with prior permission.
- Equal opportunities for career growth and self-development are provided for the faculty members irrespective of their gender.
- Employment initiatives, training programmes and the facilities are common to all the students irrespective of their gender.
- Women’s grievance redressal committee is constituted to address the issues faced by girl students.
- Need based counselling is arranged through professional counsellors for girl students.

- Women's Day is celebrated with great enthusiasm with girl students and lady staff members every year.
- Several motivational programmes and personality development programmes are arranged to educate the students on social / gender issues.
- 24x7 security is provided both in the campus and in the ladies hostels to ensure the safety of ladies.
- A separate rest room is available for lady staff and girl students for those who have medical / health issues.

Environment issues:

- A good leader has to lead by example. Our college stands as a testimony to the statement by providing awareness on cleanliness and hygiene by practicing them.
- The entire campus is provided with reverse osmosis (RO) treated water.
- The campus is maintained clean by employing around 200 workers (full time) for maintenance of the campus and the toilets.
- The college has a landscape consultant, garden supervisors, and a large number of gardeners. The entire campus has landscaping with green grass, ornamental plants, and shady trees making the campus very green and beautiful.
- The College has been awarded the 'Clean and Green Campus' by the Rotary Club of Chennapatna and declared as one of the beautiful college campuses by sulekha.com
- Extensive water-harvesting activity has been undertaken at various parts of the campus, resulting in very high ground water levels.
- Organic farming is being adopted for the kitchen gardens in the campus.
- Recycling of waste water has been undertaken to reuse the water from bathrooms and kitchen cleaning areas for gardening purposes.
- The college has an energy park, set up with funding from TEDA, which use solar energy for pumping and some lighting. It is planned to go in for solar water heater for the hostels.

2.2.5. How does the institution identify and respond to special educational/learning needs of advanced learners?

Advanced learners are identified based on

- Academic performance in the school (cut-off marks obtained in the qualifying examination).
- Academic performance in the college.

- Participation in department activities such as Association/ Symposium paper presentation, Mini projects etc. at intra/inter/national/international Conferences.
- Participations/Accolades won in Co-curricular and extracurricular activities.

The faculties interact with the advanced learners to understand their special interests and to sustain their enthusiasm and enhance their skills, the following measures are taken as given below

Actions taken to address the special educational / learning needs of the advanced learners

1. Advanced learners are motivated by the faculty counselors / HoDs to
 - Secure University Ranks
 - Get certified in value added courses / on-line courses
 - Pursue higher studies at reputed institutions in India/abroad
 - Write competitive examinations such as GATE/CAT/IES/IELTS/GRE/TOEFL
 - Participate in workshops/Conferences at the national/international levels
 - Participate in competitions Organized by industries/reputed institutions
- 2.They are appreciated and awarded cash prizes during college annual day for their achievements.
- 3.Academically best students in UG and PG courses are conferred with Gold medals and a citation during college annual day.
- 4.“Best outgoing student” award is bestowed upon one student who has shown outstanding performance in academics, extra and co-curricular activities.
- 5.Motivated to get placed in reputed MNCs in core areas.
- 6.Semester wise toppers are encouraged by providing books of the students’ choice as prizes.
- 7.The system provides facilities to include “content beyond syllabus” the lecture plan itself which will enhance problem solving and analytical skills.
8. Facilities like digital library with on-line journals and availability of standard reference books in the library facilitate the needs of advanced learners.
9. Case studies and assignments given periodically help students to think and analyse problems and to solve them.
10. Students with research aptitude are given special training under CoEs and value added courses.
- 11.IEDC provides students an ecosystem that will develop creativity leading to new product developments.

2.2.6. How does the institute collect, analyze and use the data and information on the

academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

There have been always a very less number of dropouts in UG in the last few years as the institute has a sound system of identifying such students through counseling and mentoring. Students drop out of the courses because of

- Lack of understanding of the subjects
- Socio-economic condition.
- Language issues.
- Lack of interest.

Such students are identified during the first semester of the study itself by faculty counsellors, class advisors, year / branch coordinators or HoDs during their interaction with the students concerned. Sometimes, fellow class mates and friends come forward and inform the faculty about serious issues concerning their friends. Such students are given special counselling by the Class Counsellors and Professional Counsellor (if needed) to understand their problem.

a) Motivation to slow learners

The slow learners are encouraged to improve their academic performance through extra attention in class, special coaching, repeated tests with important questions and counseling by faculty counselors.

b) Motivation to students from poor socio-economic background

Scholarships are granted to these students by the college management to reduce their financial burden. Fee waiver is also given to students by the management, as applicable.

c) Motivation to students with language issues

Students, who did their schooling in regional languages, find it difficult to follow the courses which are taught entirely in English. Such students are identified and special classes are conducted to improve their academic performance.

d) Motivation to students with lack of interest

Special counseling by professional counselors is arranged.

Parent–Teachers Meeting: Meeting with parents of slow learners is conducted every semester to identify the difficulties faced by their wards and to motivate them to improve in their performance in the university examinations. The HoD, Year Coordinators, Class advisors and the staff take individual care for every student and parents/guardians are informed regularly regarding the performance of the student.

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

Academic calendar

Academic calendar is prepared in accordance with Anna University's academic schedule prescribed for affiliated institutions. The calendar provides details on date of commencement of classes, number of working days, holidays and proposed dates of college level and department level functions / activities. The hard copy of the same is distributed to all the students and faculty to enable them to perfectly plan the academic activities such as preparation of time tables, lecture planning, conduct of internal assessment tests etc.

TEACHING PLAN

Theory

- Faculty members fill up the “choice of subjects” to be taught in the forthcoming semester according to their expertise and specialization. The subject allocation meeting is conducted by the HODs and courses are allotted to the faculty members based on their expertise, willingness and experience which facilitate the preparation of class time table and faculty time table on par with ISO standards
- A meeting with the HoDs, academic coordinator and the Principal is convened for allocating inter-departmental subjects.
- A detailed lecture plan is prepared by the individual faculty which is a comprehensive blueprint of the lecture classes (period wise) which also includes course objectives, the reference books for the topics, teaching aids, content beyond syllabus planned, etc.

Practical / Laboratory classes

- The laboratory in-charges are allotted based on their expertise and they prepare the lab manuals and schedule of experiments. Each laboratory in-charge ensures the availability/serviceability of equipments and consumables before the commencement of every semester.

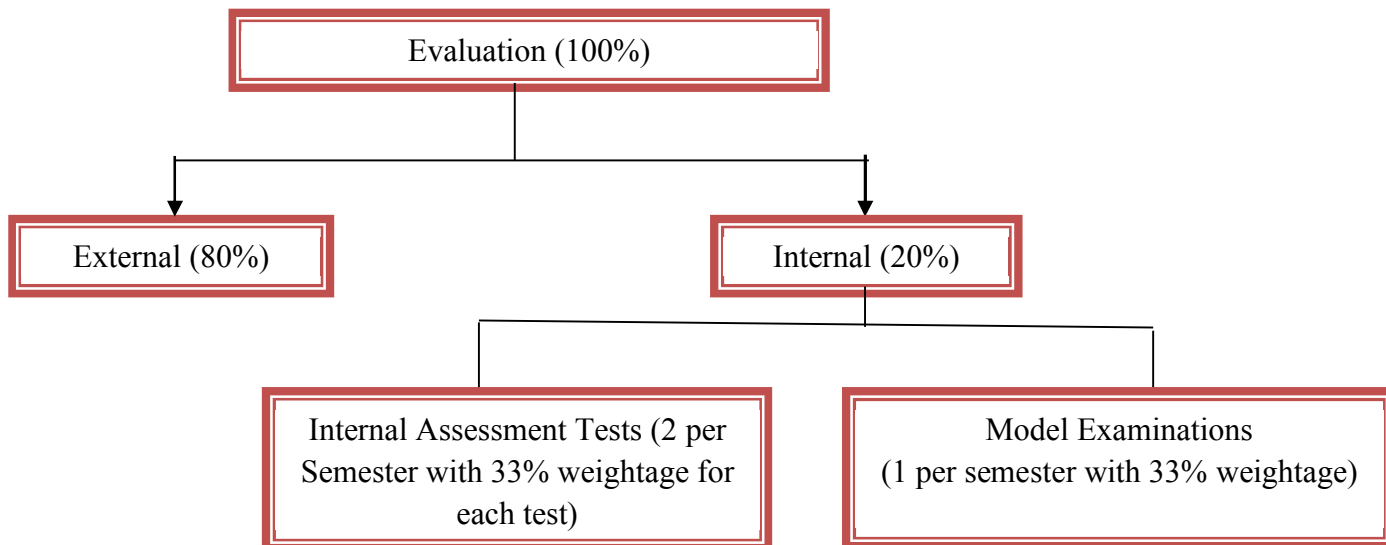
EVALUATION BLUEPRINT

a) Teaching plan evaluation

- The faculty members maintain a log book for each of the subject and the laboratory classes they handle where date-wise and hour wise details of the topics covered in the classroom is entered.
- The log books and course coverage reports are periodically checked by the HODs, academic coordinator and the Principal.

b) Evaluation of students' performance

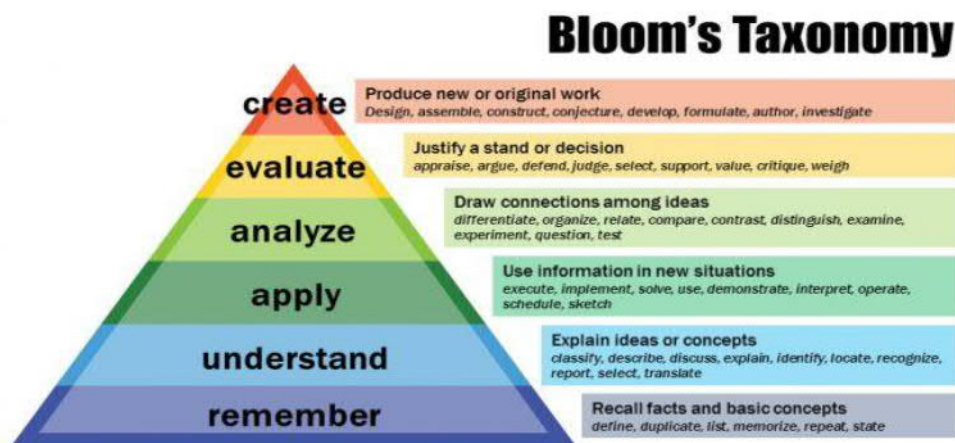
Evaluation process of students' academic performance is as given below:



*Internal assessment and model examination question papers are prepared as per Anna University question paper pattern.

2) Internal assessment and model question paper is prepared as follows:

- Course coordinators prepare question bank as per the guidelines of Bloom's taxonomy, i.e.,



- Question bank, thus prepared, is submitted to centralized examination cell which in turn generates the question papers using a customized software.
- Central evaluation with dummy number system is adopted for evaluation of the model examination answer scripts. External examiners from our group of Institutions are called to evaluate the papers similar to the system adopted by the Anna University.

3) Evaluation of practical classes is crucial as it provides hands-on-experience to the students and an insight into the students' understanding of the theoretical concepts. The students are

evaluated based on the regularity, timely completion of the experiments, presentation of content in both observation and record book and the performance in viva voce.

4) Evaluation of final year projects, which carry 200 marks, is done by the **Project Review Committee** formed and headed by the HOD at the beginning of the seventh semester. Periodic monitoring and evaluation of the project works are done in three phases: zeroth review, first review and second review by this committee.

Out of 200 marks awarded for the projects, 100 marks are allotted for the students' performance in review meetings. The remaining 100 marks is allotted during final Viva Voce and the weightage of marks in the final Viva Voce is based on the format prescribed by the Anna University.

2.3.2 How does IQAC contribute to improve the teaching–learning process?

Quality assurance of the teaching – learning process is done by ISO and IQAC. IQAC, is “a committee for academic activities” in our college and it is headed by the academic coordinator with representatives from all the departments.

The Internal Quality Assurance Cell (IQAC) – Academic activities committee helps in framing an action plan for the academic year by interacting with the management, faculty, administrative staff, laboratory staff and the students.

Functions of IQAC:

- Fixing the target results to be achieved for the college and hence at the departmental level with the consultation of the management and the departments.
- Approval of subject allocation by the departments
- Verification of lecture plans for their feasibility of completion at the prescribed time as per the academic calendar.
- Conduct of class committee meetings and redressal of the issues raised.
- Conduct of course coordinators meeting
- Analysis of students' performance in the unit tests / internal assessment tests / model examinations / university examinations.
- Recommendation of remedial measures to HoD and faculty of the departments concerned to improve the overall performance of the students.
- Collecting feedback (online and through class committee meetings) from the students on the teaching effectiveness of the faculty.
- Suggesting / recommending the measures to improve the teaching effectiveness through FDPs, workshops, conferences etc.

The cell also initiates workshops for the technical supporting staff who are involved in assisting the laboratory sessions with a view to enhance their practical skills with which

they can help the fabrication and testing part of students' project models

ISO 9001:2008:

- The institution is certified by DNV Netherlands as ISO 9001:2008 compliant in recognition of its International Quality Standards in technical education.
- To be in full compliance with the ISO 9001:2008 standard, the college implemented a comprehensive customer focused Quality Management System, which encompasses mission, vision, teaching learning process, research, community engagement etc. and the process is audited internally by the ISO committee headed by Management representative (MR) periodically and externally audited by the DNV periodically.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The institution supports student-centric learning through its efforts at creating a learning environment which allows students to acquire interpersonal communication skills, problem solving and knowledge management skills, critical thinking, leadership skills, team work and group interactions, which enable the students for lifelong learning.

Our faculty members are trained in NITTTR and Wipro Mission 10X (Faculty Empowerment Programme) which empowers the faculty members to develop transformative Academic Leaders to build institutions of excellence and to deploy Unified Technology Learning Platforms (UTLPs) to bridge the gap between industry and academia. These programmes provide an understanding of the emerging teaching - learning process and hence to adopt innovative teaching tools to make learning effective.

The strategies adopted by the teachers are as follows:

- Interactive learning through regular classes supported with seminars, quiz, role play, debates, brain storming sessions, group discussions etc
- Seminars: Students present seminars on pre-assigned topics once a week based on their willingness and interest in the given topic which provides opportunities for collaborative learning.
- Tutorial classes are allotted in the time table itself for problem oriented subjects where the faculty member prepares a set of questions for small groups of the students which enables interactive / peer learning.
- Guest lectures are arranged to encourage students to interact with eminent and experienced resource personnel from the Industry to improve their technical knowledge and to know the latest trends in the Industry.
- The institution is a nodal centre for NPTEL on-line courses and all the students are

motivated to get certified by NPTEL on-line courses to improve their knowledge in the relevant streams by independent self-learning.

- Periods are allotted in the time table for student's web browsing (Internet) and library for updating the current developments in science / engineering / technology fields.
- Industrial visits are arranged for students by the departments to enhance their practical knowledge.
- The second and third year students are motivated to undergo inplant trainings in reputed industries.
- All the students are members of professional societies such as ISTE / IEEE / ISOI / IE which also enables collaborative learning.
- Activities under department associations, symposia, technical club, coding club, science club, sports club etc. enhances peer learning.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- All the departments are affiliated to one or more of the professional societies such as ICI, ISTE, IEEE whose programmes enhances critical thinking of the students.
- All the departments have students associations through which they organize various programmes to develop organizing and leadership qualities of the students.
- The programmes organized by the associations are shown in the below given table.

Particulars	Year / frequency of occurrence
Guest lectures in emerging technologies	Two per semester
Student seminars	Regular
Workshops	Once in a semester
Technical quiz	Regular
Paper presentation competitions	During II year
Innovative mini project competitions	During II / III / IV year
National level symposia	Once in a year
National / International conferences	Once in a year

- The students are guided and motivated to participate in technical events conducted by reputed institutions and industrial organisations such as Anna University, IITs, EMC2, Johnson controls, Accenture, Infosys etc.
- The R&D department motivates the students to do innovative and socially relevant projects and subsequently patent them.
- DST – NSTEDB sponsored IEDC, organizes many activities to motivate students to

become young entrepreneurs.

- IEDC invites innovative project proposals and sponsors few projects based on the merit / innovativeness / social relevance.
- Eminent personalities from industries and academia are invited regularly through IEDC, Alumni association, department associations and this provides a learning platform for students for effective knowledge sharing and knowledge gain.
- Our institute has signed MoUs with different companies in different regions of India for enhancement of student learning activity to enhance knowledge creation and application through mini projects and certifications.
- A well-equipped library with 93233 volumes of books on 25177 titles, national and international journals and a digital library facilitate global knowledge acquisition. One library period per week is allotted in the time table.
- Students are also motivated to go for summer training, internships (or in plant) in the leading industries and research institutes which provide an insight into real life challenges and operational difficulties in industries.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

- All the students are encouraged to get certified by MOOC courses such as NPTEL / MITx/ IIMBx etc. and the like on-line courses right from their first year.
- To enable the use of virtual laboratories / e-learning, students are provided with high speed internet access (256 Mbps) and 24X7 Wi Fi connectivity.
- 50% of classrooms in each department are ICT enabled.

Audio – visual aids deployed by the faculty for effective teaching – learning process include

- The use of modern multimedia teaching aids like LCD projectors, internet enabled computer systems
- use of working models, charts and demonstration experiments
- Use of softwares such as Spoken Tutorial (an Audio-Video based teaching tool)
- Innovative teaching pedagogies such as the focused group discussions, debates and presentations are adopted to enhance our academic quality.
- State-of- the- art language laboratory with softwares such as “Hi-class” software enables the students to be proficient in English and communication skills.

- Digital Library is provided to the students through which open education resources, on-line journals are accessed.
- Apart from the Central Library, each department is equipped with a separate library with reference books in their respective core areas.
- All the laboratories in each department have latest equipments meeting the requirements of the Anna University.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

- Faculty members are encouraged to get certified by the industry partners through “Train the Trainers” concept who in turn impart / disseminate their knowledge to the students.

Faculty members are supported and sponsored to participate in

- Training & Faculty development programmes
- Orientation programmes & Refresher courses
- Workshops
- Conferences
- Seminars
- Faculty members are encouraged to publish papers in high impact factor journals. Publication of papers in journals carry weightage in the performance appraisal of the faculty.
- Guest lectures by eminent people from industries and academia are arranged at regular intervals.
- Value added programmes through the CoEs and R & D labs sponsored by industry partners such as Product Lifecycle Management (PLM) lab, IBM CoE lab, CCNA lab by CISCO (composite exam associated with the Cisco Certified Network Associate Routing & Switching certification), Digital Enterprise (Big data / iOS), Labview by National instruments, ARM (Advanced RISC Machines) lab, Robotics Lab, Factory automation lab by Mitsubishi Electric India and the like augments the knowledge gained inside the campus through prescribed curriculum.
- National / International conferences are organized by the departments separately inviting field experts to provide current trends in R & D, innovation and industrial scenario.
- The institute supports and sponsors the students to get certified in online courses, to attend conferences and workshops, Symposia, events by professional bodies,

competitions etc. to develop innovative projects in their core areas with suitable rewards by the college.

- Efforts are made to obtain sponsored R & D and consultancy projects.
- Regular industrial visits and internships provide hands-on-experience to the students.
- Well-equipped library serves as a knowledge resource center (Refer 2.3.9)

2.3.7 Detail (process and the number of students \benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/mentoring/academic advise) provided to students?

Counseling Cell:

- Academic counseling is given to all the students. Each class has been allotted with a year coordinator, class advisor and two to three faculty counselors for the academic and personal guidance of the students.
- One faculty counselor is deputed for every 20 students and they will continue to be the mentor for the particular student till he / she completes his/her course by monitoring the growth of the students with respect to their academic needs, giving the guidance for extra and co-curricular activities and providing general counseling etc.,
- Parent-teacher meeting is conducted every semester to convey the academic progress and to improve the parent–teacher-student relationship.
- The faculty counselor maintains the complete profile of the students to monitor the growth of the students and professional counseling is given to the needy students.
- Women empowerment cell promotes gender equality and gender amity.

Academic advice to motivate the slow learners:

Slow learners are counseled and mentored by the faculty counselors regularly. Measures such as extra attention in class, special coaching classes, parents – teachers meeting etc. boosts their confidence to perform well in the academics.

Actions taken to motivate the average / above average students:

- The students who maintain consistently a good academic performance are encouraged and appreciated through cash prizes and awards during the college annual day.
- The students are nominated for the Best Students Awards and Best Project Awards conferred by various external agencies like TCS, CTS etc.
- Good academic performers are motivated by the HoD, Year Coordinators and Class Advisors to obtain University ranks.

The detailed counseling process that is in practice in the institute is shown in Fig:2.3.7.

Grievance Redressal Cell

- The cell functions under the guidance of the Principal in consultation with members of committee and legal experts.
- It focuses on addressing the basic problems of the students regarding academic and other amenities.

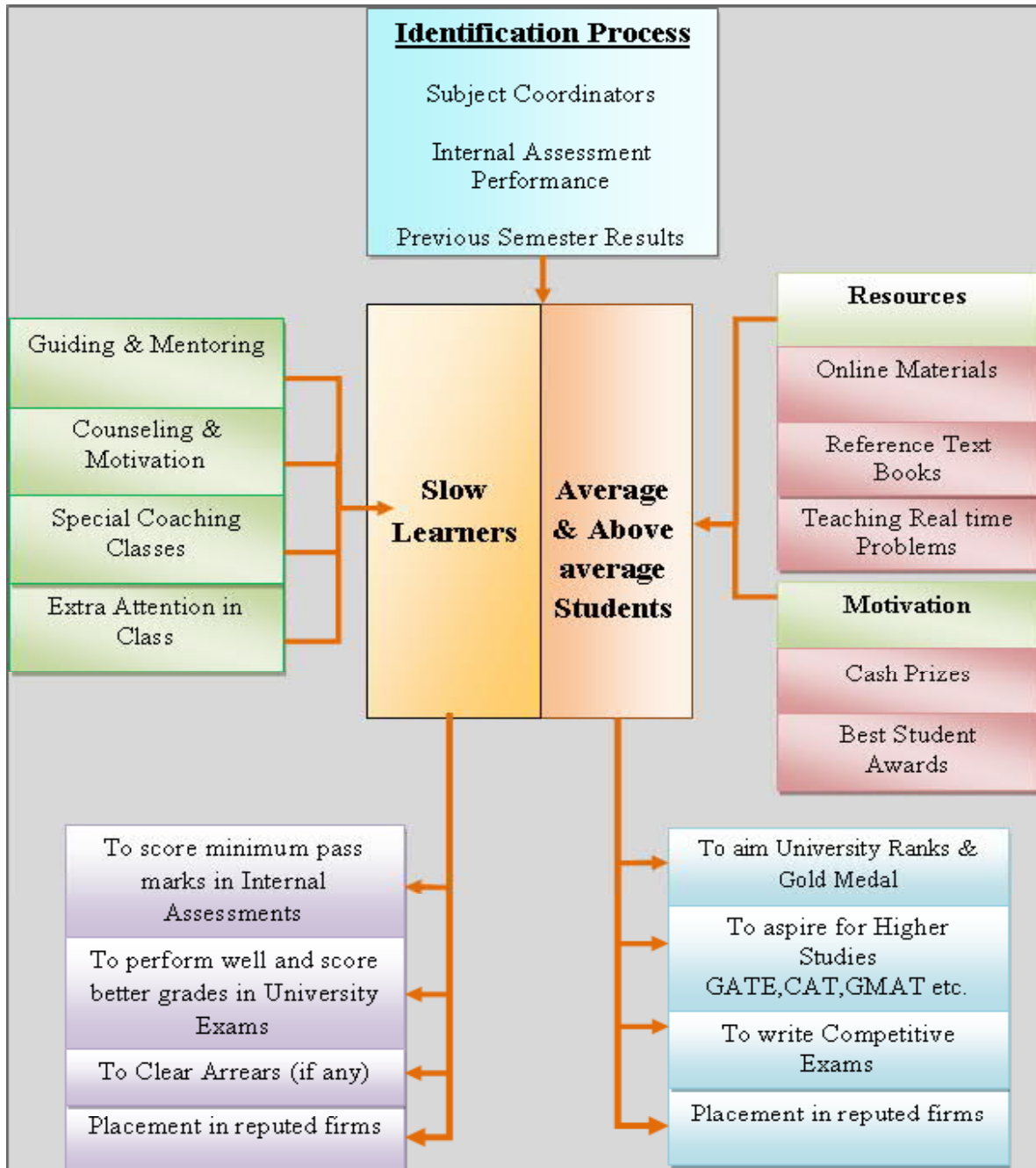


Fig: 2.3.7: Counseling Process

Career guidance

Career Guidance is provided to the students depending on their interest and career choice by the following :

- Training & Placement cell
- Higher education cell
- Innovation and Entrepreneurship Centre

Training & Placement

- Placement training programmes are conducted for the students right from the first year to improve their communication skills, analytical skills, reasoning, programming skills, leadership qualities, confidence levels etc.
- Placement training programs on quantitative aptitude, verbal reasoning, analytical skills, soft skills, interview skills, group discussions etc. and on-line aptitude tests (AMCAT, SKILLRACK) are conducted to help the students to get placements in reputed firms.
- The institution organizes various placement drives / campus recruitment at the campus by inviting reputed MNCs and national level industries to facilitate the students to find the right employment.

Higher Education cell

- The cell provides guidance to the students who aspire for higher education through seminars and presentations by consulate representatives
- Conducts training for GATE / GRE / TOEFL / CAT / GMAT etc.
- Conducts awareness programmes on “UPSC examinations”.

IEDC

- Organises entrepreneurship awareness camps and entrepreneurship development programmes for aspiring entrepreneurs.
- Motivates and invites innovative projects for funding to design and develop prototypes.
- Facilitate to apply for patent.
- Through the concerted efforts of IEDC, many students have shown interest to become entrepreneurs with startups within the campus by getting funds from nodal agencies like DST, AICTE-CII, NASSCOM and IIT-M Research Park.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

Efforts by the institution

- The faculty members are trained in Wipro Mission 10X, adopt interactive learning methodologies in their classes.

- Faculty members are trained by the industry partners under various CoEs on emerging areas of engineering and technology in industries which benefit the students at large.
- All the faculty members are encouraged to attend FDPs and national / international seminars / conferences.
- Principal, senior professors and HoDs are encouraged to attend “leadership development programmes” conducted by reputed industries and academic institutions.
- Senior faculty members provide training to the faculty members with minimum teaching experience to enhance teaching effectiveness.

Innovative teaching approaches

- The CoEs and research laboratories established in different departments by the industry partners provide a clear understanding of the concepts to the students and encourage them towards research activities and innovation.
- NPTEL and other on-line courses are extensively used to augment the conventional black board teaching.
- Faculty members use working models, charts, PPTs, videos and animations to present the important / difficult theoretical concepts.
- Field visits, surveys, demonstrations, in-plant training, paper presentations, in-house projects etc., effectively supplement the class room learning.

Impact of the innovative practices

- Adoption of such innovative teaching practices has resulted in consistent increase in the pass percentage of students and increase in percentage of students graduating.
- Number of students securing university ranks is consistently on the rise.
- Our students have been consistently performing well and bring laurels in competitions conducted by other academic institutions and industry organizations.
- Students participate enthusiastically in innovative project competitions conducted right from first year.
- Astounding placement records and a positive feedback from the recruiters, stands as a testimony for the positive impact of innovative teaching practices.
- Number of students enrolling for higher studies is also on the rise.

2.3.9 How are library resources used to augment the teaching- learning process?

Library facilities available:

- The library is well stocked with 93233 volumes of books in 25177 titles, collection of digital materials, such as educational CDs, e-books, monographs and NPTEL videos.
- Scholarly e-journals such as IEEE, ASCE, ASME, Springer and Elsevier- Science

Direct and 101 print versions of journals are subscribed.

- Digital Library with multimedia facilities (<http://192.168.10.5/>).
- NPTEL (National Programme on Technology Enhanced Learning) facility.
- E-Books, E-journals and Educational videos.
- OPAC (Online Public Access Cataloguing Service)
- Back Volumes of Journals and Magazines
- UG and PG Students Project dissertation are available

The library facilities are used by the faculty and students in the following ways:

An orientation programme on the facilities available in the library is provided to all the I year students. Any new additions such as journals or reference books in the library are informed to all the faculty through circulars. List of additional books required for students are obtained from the departments every year and are purchased.

- To ensure effective use of library by all the students, one period is allotted for it in the time table itself with a faculty in-charge. Faculty helps the students in choosing books for various topics.
- The students can access the reference books and journals during the library hour and also after college hours which augments the learning process.
- For the benefit of hostel Students the library is kept open between 8.00 a.m. to 6.30 p.m. on all the working days as well as holidays.
- Students can use the library resources for their assignments, mini projects, innovative projects, paper presentations etc.
- Library is stacked with books on placements, interview skills and aptitude which helps in placement preparations.
- Books on various competitive examinations such as GATE, IES, UPSC, GRE, TOEFL, IELTS, GMAT, CAT etc helps students aspiring for higher studies.
- Availability of Anna university question papers in the library helps the students during their end semester examinations.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

No, the institution has a planning committee which prepares academic calendar of the institution well ahead of commencement of each semester, based on the academic schedule prescribed by Anna University and ensures that there are sufficient number of working days to

cover the syllabus and to carry out the evaluation process.

The number of working days per semester is always more than the number of days stipulated by the University in order to include the improvement classes for the slow learners and to conduct model examinations for the lab courses. The schedule for the completion of each unit is prepared by the planning committee and circulated to the subject teacher before the commencement of the semester.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

The institution regularly and systematically evaluates and monitors the quality of teaching in the following ways:

- Class committees comprising of a chairperson (deputed by the HoD), class teacher, class advisors, faculty members and student representatives are formed at the beginning of the semester.
- Class committee meetings are conducted twice a semester to get feedback on various academic aspects such as syllabus completion, difficulties faced by students etc.
- Teaching effectiveness of the faculty is obtained through On-line Students feedback system once in a semester.
- Based on the feedback, the faculty members are advised by the HoDs to take corrective action by undergoing FDPs or changing the teaching methodology, if needed.
- Self-appraisal submitted by faculty members is reviewed by the HoDs and the Principal. The consolidated strength and weakness of the faculty along with the Principal's feedback is informed to the faculty through one to one meeting for further improvement.
- At the end of every unit test, internal assessment tests and model exam, students' performance is analysed which helps the faculty to make the required changes in their teaching methodology.
- University examination results are also analyzed which facilitate the identification of slow learners and adopt suitable strategies to improve the learning skills of these students.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the Curriculum Recruitment

The number of vacancies in different cadres, based on the students' strength, staff-students' ratio and faculty designations are calculated by the HoDs, academic coordinator and the principal. The same is submitted to the management for approval. Once the management approves, the vacancies are advertised in leading newspapers.

- The vacancies in various cadres are filled by direct recruitment as per AICTE rules based on merit in terms of qualification, experience and attitude. The selection committee is chaired by the Chairman of the R.M.K. Engineering College.
- In this direct recruitment process applications received from candidates are securitized by the HoDs and shortlisted. The shortlisted candidates are called for interview.
- The interview process consists of three rounds: a written test for testing technical skills, class room teaching for effective communication and interpersonal skills and HR interview.
- The first appointment to the post other than a temporary post shall be made on probation for a period of one year.
- On satisfactory completion of the probationary period, the employee will be confirmed in service of the Trust/College for the post for which he/she was recruited.
- Persons already in the employment of the College, who possess the requisite qualifications and experience for the posts advertised shall also apply through proper channel and compete with others.

Retention

Retaining the faculty is retaining the knowledge assets of the organization, otherwise the cost of recruitment and training will increase. Various strategies adopted by the management to retain the faculty are as follows:

- Institution encourages the faculty to pursue higher studies in reputed institutions to enhance the competency. The college has highly qualified and competent faculty force of 274 which includes 50 Ph.D. holders for handling the subjects.
- Travel and registration fee to attend the conferences, On-duty facility to attend workshops, deputations to attend skill development programmes, opportunities to participate in FDPs and training programmes enhances the faculty involvement and

retention.

- Motivation and encouragement to professional advancement also facilitate the retention of teachers with the institution.
- Faculties producing 100% results are felicitated during college annual day.
- An annual get-together is arranged by the management with all the faculty members and their families.
- Fee waiver is given to the children of the faculty members in schools / colleges.
- Transportation and food are provided free of cost for the entire faculty.
- Senior professors are given quarters in the city.
- 6th Pay commission salary, PF facility, gratuity and leave facilities as per AICTE / state government norms also help in employee retention.
- Teacher –student ratio of about 1: 15 is maintained as per Anna University and AICTE norms.

Teacher Quality for the academic year (2016-2017)

Highest qualification	Professor		Associate professor		Assistant professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
Ph.D.	18	12	04	07	05	03	49
M.Phil.	-	-	02	02	06	24	34
PG	01	-	13	19	68	72	173
Temporary teachers (Adjunct Faculty)							
Ph.D.	01	-	-	-	-	-	01
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	14	03	17

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

- Stringent recruitment process ensures the appointment of the best and qualified teachers.
- Management supports the faculty members who continue higher studies and improve their qualification. (66 faculty pursuing Ph.D in RMKEC)
- The management encourages the faculty members to participate in orientation and refresher courses, workshops, seminars at state, national and international levels to

learn and teach particularly new programs in emerging areas.

- Faculty members are trained under various CoEs by the industry partners in emerging areas such as digital enterprise, PLM, IBM, BMS, Factory Automation, IoT, ARM etc. who in turn are made the in-charges of the CoEs. The faculty thus trained disseminates the knowledge and skills gained to the interested students.
- Programming skills of the students are enhanced by the initiative “Enhancing Programming Skills (EPS)” and the faculty resource persons for the same is trained as given below:
- CSE and IT department faculty enhances their programming skills by on-line courses conducted by reputed MNCs and their performance is evaluated periodically.
- Resource persons from TCS and iNautix provide training on “C” and JAVA to the faculty members.
- WIPRO Project Readiness Programme trains the faculty on Core JAVA and Advanced JAVA programming.
- Adequate R & D facilities are provided to attract the new faculty and to retain the existing faculty.
- Industry experts and eminent academicians are invited on a regular basis to update the knowledge of faculty and students on special subjects.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

- **Staff Development Programmes**

The Management has a positive attitude for the professional development of the faculty in acquiring the knowledge of recent developments and engaging them in the research activities. To improve the competency of the teachers, the institution organizes need based workshops and also motivates them to attend refresher courses, orientation programs, workshops, seminars etc., conducted by other institutions. The number of faculty participated in the Academic Staff Development Programmes during the last four years (2012-13,2013-14,2014-15,2015-2016) is given in the following table:

Department	Academic Staff Development Programmes	Number of Faculty Nominated
CE	Staff training conducted by the university	5
	Staff training conducted by other institutions	12
	Summer/Winter schools, workshops etc.,	49

CSE	Refresher courses	8
	HRD programmes	5
	Orientation programmes	8
	Staff training conducted by the university	20
	Staff training conducted by other institutions	44
	Summer/Winter schools, workshops etc.,	15
ECE	Staff training conducted by the university	4
	Staff training conducted by other institutions	36
	Summer/Winter schools, workshops etc.,	12
EEE	Refresher courses	18
	HRD programmes	1
	Orientation programmes	5
	Staff training conducted by the university	32
	Staff training conducted by other institutions	17
	Summer/Winter schools, workshops etc.,	54
EIE	Refresher courses	1
	HRD programmes	2
	Staff training conducted by the university	6
	Staff training conducted by other institutions	14
	Summer/Winter schools, workshops etc.,	23
IT	Refresher courses	2
	Orientation programmes	3
	Staff training conducted by the university	2
	Staff training conducted by other institutions	66
	Summer/Winter schools, workshops etc.,	11
MECH	Refresher courses	10
	Orientation programmes	10
	Staff training conducted by the university	12
	Staff training conducted by other institutions	12
	Summer/Winter schools, workshops etc.,	05
S&H	Staff training conducted by the university	12
	Staff training conducted by other institutions	4
	Summer/Winter schools, workshops etc.,	20

• Faculty Training Programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching – learning

Number of programs organized by various departments of our college in the last four years (2012-13,2013-14,2014-15,2015-2016) is as follows:

Department	Staff Development Programs Organized
CE	3
CSE	5
ECE	4
EEE	2
EIE	1
IT	4
MECH	1
MBA	1
Training & Placement	43
Total	64

- Faculty development programmes for enhancing the teaching skills is organized once a year by senior professors and external agencies for the faculty with less than 3 years of experience.
- “Train the trainers” workshops are organized through CoE for knowledge upgradation and dissemination.
- FDPs are organized through industry partners such as TCS, CTS, WIPRO, Infosys and the like whenever a change in industrial scenario is predicted.
- Faculty preparation and refresher programmes are organized during summer and winter vacations in subjects whenever a change in curriculum is made.
- Percentage of faculty invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies
- Participated in external Workshops / Seminars /Conferences recognized by national/international professional bodies
- Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies

The following table shows the percentage of faculty members invited as resource persons, participated and presented papers in workshops / seminars / conferences etc., during the last four years (2012-13,2013-14,2014-15,2015-2016).

Department	Invited as resource persons (%)	Participated in external Workshops / Seminars /Conferences (%)	Presented papers in Workshops / Seminars / Conferences (%)
CE	2	36.46	11.26
CSE	20	85	70
ECE	6	80	70
EEE	10	86	40
EIE	1	35.97	1.453
IT	4.67	78.5	18.69
MECH	10	40	30
S&H	1	60	50
MBA	100	50	-

2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

The Management encourages the professional development of the faculty in acquiring the knowledge of recent developments, usage of modern tools and engaging them in the research activities.

Research Grants Incentive

- The faculty members are encouraged to prepare and submit research proposal for funding from various funding agencies such as DST, AICTE etc. The Principal investigator is given on- duty leave, TA and DA for his/her project presentations to the respective funding agencies. Also the Principal investigator is given autonomy to procure equipments or consumables or recruit Project Assistants or Research assistants through proper approval from higher officials.
- 10% of the funds generated through workshops and funds obtained from the sponsoring agencies such as DST, AICTE etc. is given as incentive to the faculty concerned.
- The institute grants OD for the faculty pursuing Ph.D. to attend their course work.
- Fully equipped R & D lab with Wi Fi connectivity for faculty pursuing Ph.D and research scholars.

Nomination to National/ International conferences/Seminars

- The faculty members are permitted to attend Conferences/ Workshops/ Seminars/ Symposia, etc.at the national and international levels by providing registration fee / on-duty facility and TA & DA.
- Registration fee is sponsored for presenting papers in conferences.
- On duty leave to act as resource person in Conferences, to chair technical sessions and to act as a member in the Board of Studies is provided with travelling allowance.

Organizing National/International conferences

- National and International Conferences are organized once a year by the department with the financial support of the Management / external agencies.

Faculty Development Programmes

The institution organizes various programmes like faculty induction programme for fresh teachers and programmes by TCS, CTS, Infosys, IBM etc. to train faculty members to excel in effective teaching methodologies.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

An engaging culture and academic environment provide ample opportunities for our faculty in their career development by providing various facilities such as encouragement for higher studies, sponsorship for attending conferences, providing research facilities, conducting staff development programmes etc. (Refer 2.4.1, 2.4.2, 2.4.3 and 2.4.4). These measures add value to the faculty profiles and boost the confidence level of the faculty members to apply for the awards and recognition. Whenever nominations to awards by various agencies / professional bodies / industries are invited, all the faculty members are informed and encouraged to apply.

Following table shows the major awards received by the faculty from various state and national level bodies.

Department	Name of the faculty member	Award/ Recognition	Year
Former Principal	Dr.Elwin Chandra Monie	Bharatiya Vidya Bhavan National Award for the Best Engineering College Principal	2012
ME	Dr.K.Chandrasekaran (Dean)	“Service excellence award” by RMKEC Alumni	2016
		Elected as Vice President, ISTE	2015
		Elected as executive council member of the international federation of Engineering	2016

	Dr.K.Manivannan	Appointed as Vice president, Industry-Academic partnership programme	2016
		Appointed as National experts advisory committee member to NCSTC division, DST-Ministry of Scient and technology for 3 years	2017
CSE	Dr.R.Jagadeesh Kannan	“Paper Presenter Award”	2013
	Dr.R.Jagadeesh Kannan	Best Student Branch Award-CSI	2013
	Ms. R. Precila Mary	Infosys Campus Connect	2014
	Dr. K.L. Shunmuganathan,	ISTE National Award for Innovative Research Work	2015
	Ms. R. Precila Mary	Infosys Campus Connect	2015
	Ms. A. Thilagavathy	Infosys Campus Connect	2015
EEE	Dr.Y.Sukhi	‘Best Teacher Award’ by IEI	2015&2016
	Dr.Geetha Ramados	“Service excellence award” by RMKEC Alumni	2016
EIE	Dr. K.A. Mohamed Junaid	Partners in Excellence, Mitsubishi Electric India Private Limited	2015
	Dr. Gnanasekaran T	“Distinguished Alumni Award” VITAA Day, VIT University,	2014
IT	Dr. K. Vijaya	Global Teacher Role Model Award 2015	2015
S & H	Dr.S.Pavai Madheswari	“Service excellence award” by RMKEC Alumni	2016
ECE	Dr.T.Suresh	“Service excellence award” by RMKEC Alumni	2016
MBA	Dr.S.D. Uma Mageswari	“Service excellence award” by RMKEC Alumni	2016

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Yes, during the semester every faculty member is assessed by the following evaluation methods:

- Students give their on-line feedback on the subject teachers once in a semester.
- Class committee meetings are conducted after each internal assessment tests.
- Class room observation by the HOD and Professors
- Faculty performance appraisal submitted at the end of an academic year.

Evaluation process outcome

On-line feedback and class committee meetings provide a comprehensive understanding of the teaching effectiveness of the faculty.

- The faculties who have less than 75% in teaching effectiveness are counseled through the HoD concerned, academic coordinator, and the Principal. The gap is analysed and based on the needs, training and FDPs are recommended.
- The feedback obtained during class committee meetings and class room observations are immediately conveyed to the faculties and further appreciated or motivated accordingly.
- Self-appraisal by the individual faculties are done once in a year in the prescribed format which covers academic activities such as pass percentage, teaching effectiveness, research and development activities and contribution to the college.

The final score allows the faculty to understand the lacunae in the areas for further skill enhancement.

These measures provide confidence to the faculties to improve the quality of the teaching-learning process.

2.5 Evaluation Process and Reforms

2.5.1. How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

The institution is affiliated to Anna University, Chennai and the process of evaluation followed is as per the university guidelines. The process is transparent and is communicated to the stakeholders, students, faculty and parents by structured mechanisms.

- The evaluation process which includes attendance stipulations, internal assessment marks, pattern of end semester examinations are printed and distributed to all the students as “information booklet”.
- Induction day for freshers serves as the best platform to communicate the process of evaluation to all the parents, staff and the students and the need for strict adherence to the stipulations.
- Regular interactions of HoDs and faculty with the students during department meetings, class committee meetings and counseling sessions also are used for the purpose.
- At the beginning of each semester, HoDs convene staff meeting to disseminate information on evaluation / assessment and changes, if any.
- The marks awarded to the students in the continuous assessment tests and the attendance percentage are communicated to parents through post by the institution and are also accessible through the website of the affiliating university. (www.coe1.annauniv.edu).
- Any change in the schemes of evaluation, updates on curriculum revision, alterations in the question paper patterns are conveyed to the students and the faculties through the circulars received from the University and the same is displayed in the University web portal (www.coe1.annauniv.edu).
- Revaluation and review procedures of Anna University are communicated to the students through circulars.
- During Parents Teachers Meeting, parents are also informed about the Anna University webportal, revaluation and review procedures.

2.5.2. What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

The institution strictly follows the evaluation procedure prescribed by the affiliating university. The evaluation weightage is 20% for continuous assessment tests and 80% for the end-semester examinations.

Reforms introduced by the University:

- The institution conducts continuous assessment tests based on the schedule given by the affiliating university. The marks obtained by a student in the assessment test and the attendance in each course are entered by the faculty member concerned in the web portal (www.coe1.annauniv.edu) in four spells across the semester.
- Separate login for students is provided in the University web portal to access the internal marks obtained by the student. University maintains the transparency to view their internal marks.
- University practical examinations are conducted and evaluated jointly by the internal and external examiner appointed by the university.
- End-semester theory examinations are conducted by the university in the institutional campus. A representative from the university supervises the examinations. The invigilation is carried out by the faculty members of the same institution along with the faculty members of other institutions affiliated to the University in the ratio of 1:1. The preparation of question paper and the evaluation is done by the university.
- University has created a provision for entering the feedback about the semester question paper (mistakes, out of syllabus etc) in the university web portal by the respective faculty members.
- University has also developed a data bank of faculty and their subjects of specialization (Theory and Laboratory classes) and they are being updated every semester by each faculty.
- During paper evaluation, faculty members with minimum three years of experience are called for evaluating the answer scripts. Different evaluation boards are formed to evaluate the scripts by the concerned faculty in a centralized manner. The results of the examination are published in the University website.
- If a student is not satisfied with his/her results, he/she can apply for a photocopy of his/her answer sheet. Then, the student can opt to apply for revaluation of his/her answer sheets. In case, if a student is not satisfied with the outcome of the revaluation or the marks awarded in the revaluation, he/she can challenge.

Reforms introduced by the institution:

- The academic calendar for each semester is prepared in line with the University schedule of events which provides the information on scheduled timetable for internal assessments and model examinations and the tentative schedule of University practical examinations, so that students can plan the course of action.
- The question paper patterns for the internal examinations have been standardized by

the institution, similar to that of University end semester question paper containing Part A, Part B and Part C questions, as applicable.

- Internal assessment I covers Unit I and II, Internal assessment II covers Unit III and IV and model examination covers the entire syllabus of a particular course.
- A question bank containing all possible questions is prepared by each subject handling faculty and submitted to the exam cell which generates the question paper for conducting the assessment tests using software.
- The College Examination Cell holds the onus for all exam related activities and through coordinated efforts of all the stakeholders the entire evaluation system is smoothly managed.
- Students' marks are intimated to the students immediately after the completion of assessment and the same is communicated to their parents through posts.
- Retests are conducted for students who fail to secure minimum % marks / who want to improve their internal marks, with a special timetable framed for that purpose.
- The academic performance and attendance are maintained and recorded in each department as per ISO formats created by the ISO committee.

2.5.3. How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

An exam cell is constituted with the senior professor as the Convenor and department representatives and is bestowed with a responsibility of conducting all the examination related activities such as (a) ensuring the timely receipt of question bank for the conduct of Internal Assessment tests and Model exam. (b) Hall arrangement for the conduct of exams. (c) Invigilation duty allotment to the faculty. (d) Question paper dispatch to the examination halls. (e) Dispatch of answer scripts to the faculty concerned.

- A course coordinator is identified in the beginning of the semester to prepare the question bank for conducting the assessments. Software is used to select the questions to develop the question paper in order to ensure question paper secrecy.
- The answer scripts are evaluated by exchanging the answer scripts among sections. In the case of model examinations dummy number is allotted to each script and is valued by different faculties who have handled the subject.
- The college sanctions 'On duty' permission to the teachers going for central valuation of answer papers organized by the University.
- The institution creates awareness to the students as well as parents on the procedures for revaluation through circulars, class teachers and class counselors.

2.5.4. Provide details on the formative and summative assessment approaches adapted to measure student achievement. Cite a few examples which have positively impacted the system.

University is the sole authority for implementation of reforms in examination and evaluation, but faculty members who are a part of academic bodies of the university actively take part in communicating the importance of reforms to the students. Even then for bringing a positive change in the evaluation practices, the institution adopts both formative and summative approaches of evaluation to measure the students' achievements in a programme.

Theory Courses

Regulation	Formative Assessment				Summative Assessment	Total marks
	Internal Assessment I	Internal Assessment II	Model Exam	Attendance	End semester Exam	
2013	6.67	6.67	6.67	NA	80	100
2008	5	5	5	5	80	100

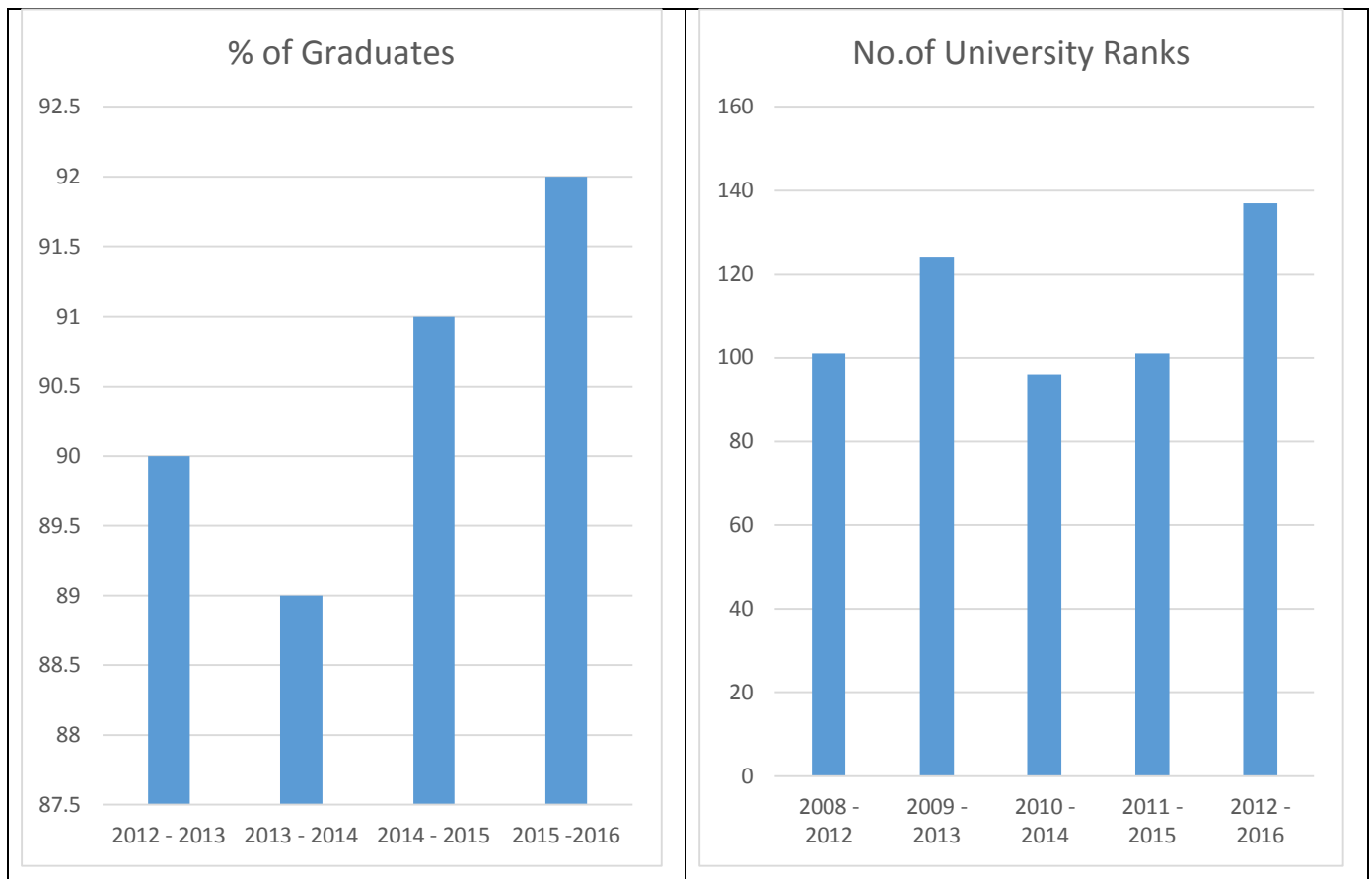
Laboratory Courses

Regulation	Formative Assessment				Summative Assessment	Total marks
	Observation	Record	Model Exam	Attendance	End semester Exam	
2013	NA	NA	20	NA	80	100
2008	3.75	3.75	7.5	5	80	100

Projects

Regulation	Formative Assessment				Summative Assessment	Total marks
	Review I	Review II	Review III	Attendance	End semester Exam	
2013	30	30	40	NA	100	200
2008	30	30	30	10	100	200

Positive impacts: Percentage of Graduates & No. of university ranks



2.5.5. Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.

To ensure rigor and transparency in the internal assessment, the institution has a separate Internal Examination Cell comprising of a senior faculty and a team of teaching and non-teaching staff which takes care of the smooth conduct of internal assessment tests.

Internal marks:

- Procedure for conducting and evaluating the internal assessment tests is given under section 2.5.3.
- As an affiliated institution, we strictly adhere to the rules mandated by the university and the internal marks are based on the marks secured in the internal assessment tests and model examination (as per regulations 2013 of the affiliating University) which is entered in the university web portal as per schedule.

Though the internal marks do not explicitly give any weightage to behavioral aspects or communication skills, the institution emphasizes the need for proper behavior and other skills.

Independent learning:

- Minimum of 2 assignments are given per subject.
- Students' seminars through technical club are conducted every week.
- Case studies provide opportunity to enhance the reading comprehension skills and problem solving skills.
- Project competitions conducted right from first year, stimulates the creativity of the students.
- Programs on soft skills, aptitude, placement training which enhances the independent learning aspects of the students.

Communication skills:

- The curriculum takes care of the communication skills by way of conducting Communication Laboratory in their fifth semester for all branches of engineering. Laboratory examination is conducted on the communication skills by the University just like any other Engineering laboratories for 100 marks with 3 credits.
- The institution trains the students for Business English Certification (BEC) by the University of Cambridge for improving the communication skills of the students.

Behavioural Aspects

- Punctuality to classes is ensured by the faculty members and HoDs.
- Absentees' parents are informed immediately about their ward's absence to the class.
- Dress code is maintained for all the faculty members and students.
- Do's and Don'ts inside the classrooms are printed and given in information booklet and also communicated to the students in every meeting and counseling sessions.
- Behaviour in the laboratories is ensured by monitoring the timely completion of experiments, timely submission of record books and performance in Viva Voce.
- Serious behavioral issues are thoroughly enquired by a committee comprising a senior professor, along with Principal and Advisors and appropriate actions, as approved by the staff council are taken. It is also communicated to the university when required and the parents are made aware of it through telephonic conversations and in-person enquiry sessions.

2.5.6 What are the graduate attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?

Graduates Attributes (GAs) form a set of individually assessable outcomes that are the components indicative of the graduate's potential to acquire competence and practice at the appropriate level. The GAs are exemplars of the attributes expected of a graduate of an

accredited programme.

The Graduate Attributes are as following:

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation for the solution of complex engineering problems.
- Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.
- Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to complex engineering activities, with an understanding of the limitations.
- The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary

environments.

- Life-long learning: Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.
- Expected course outcomes are prepared by the subject handling faculty and they are mapped with the graduate attributes (Program outcomes). Achievement of course outcomes ensures the attainment of the graduate attributes by the students.

2.5.7. What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

Grievance redressal at the institutional level

- The performance of the students is informed to the students and parents immediately after the completion of assessment tests.
- The students who have any grievance in the evaluation process can approach the faculty member who had evaluated the answer sheets for its redressal.
- The students can also approach the head of the department with their grievance, when it is not sorted out by the faculty concerned.

Grievance redressal at the university level

- The University provides the students with an option of obtaining photocopy of their answer sheets after the declaration of results.
- The student can review his/her answer sheets and apply for re-evaluation on the recommendation of the subject handling faculty.
- If a student is not satisfied with reevaluation results, he/she can go for a challenge with the recommendation by the head of the department wherein his/her answer sheets will be evaluated once again.
- Challenge evaluation fee is reimbursed by the University to the students in case of improvement in the grades in comparison to the first evaluation.
- Other type of grievances like data missing in the question papers, question asked from outside the syllabus, question paper being tough etc. are communicated to the controller of examinations through the web portal on the same day of the conduct of exam by the faculty concerned through the HoDs concerned and the Principal for necessary action.

2.6. Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes', give details on how the students and staff are made aware of these?

Yes,

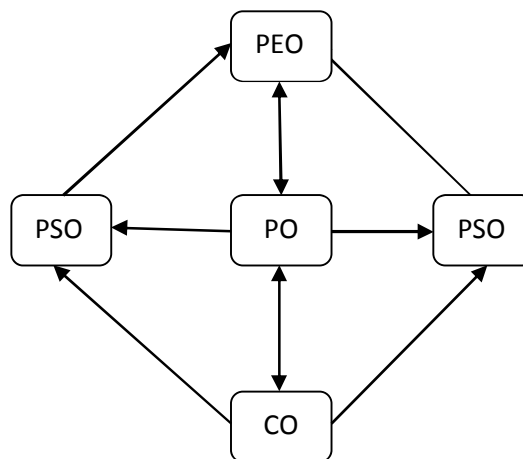
The institution strives to become the most preferred destination for holistic education to meet the industry demands. The vision and mission of the institution emphasize the development of wholesome technocrats with discipline and integrity. Each department has its own vision and mission statements which are mapped to the vision of the institution.

The vision and mission of the institution are given in the prospectus, information booklets issued, college website and displayed at the entrance of every department building.

Effectiveness of teaching-learning process can be measured through learning outcomes which in turn are measured through the achievement of Programme Outcomes (PO) and course outcomes (CO).

- Every department has well defined Programme Education Objectives (PEOs), Programme Outcomes (POs), programme specific outcomes (PSOs) and course outcomes (COs). Cross mapping between PEOs, POs and COs (given below) provides the guideline for the overall learning outcome.

78



- PEOs and POs are displayed and made available in the prominent places like College website, HoD rooms and all notice boards of Departments, Laboratories and hostels.
- Induction day programme also serves as a platform to communicate the same to the students and faculty.
- The students are made aware of the learning outcomes in the classrooms and Class committee meetings.

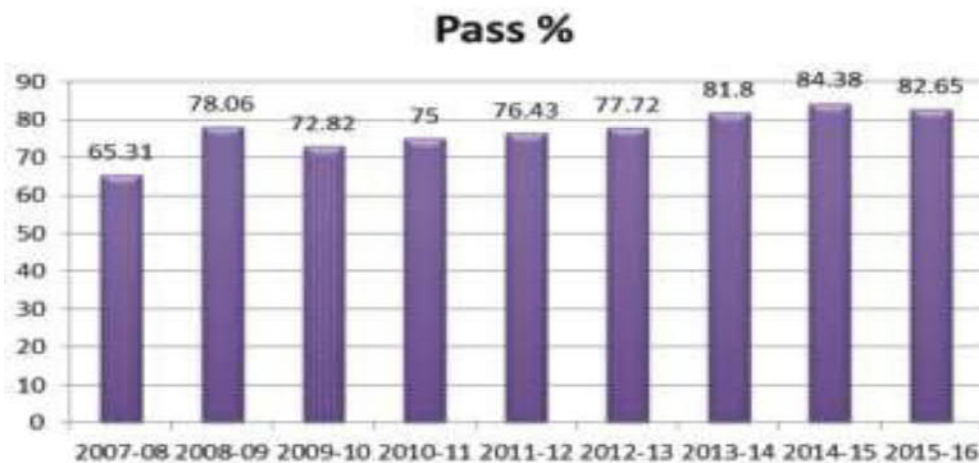
- The course objectives and outcomes mentioned in the syllabus by the University enables the faculty to understand the learning outcomes.

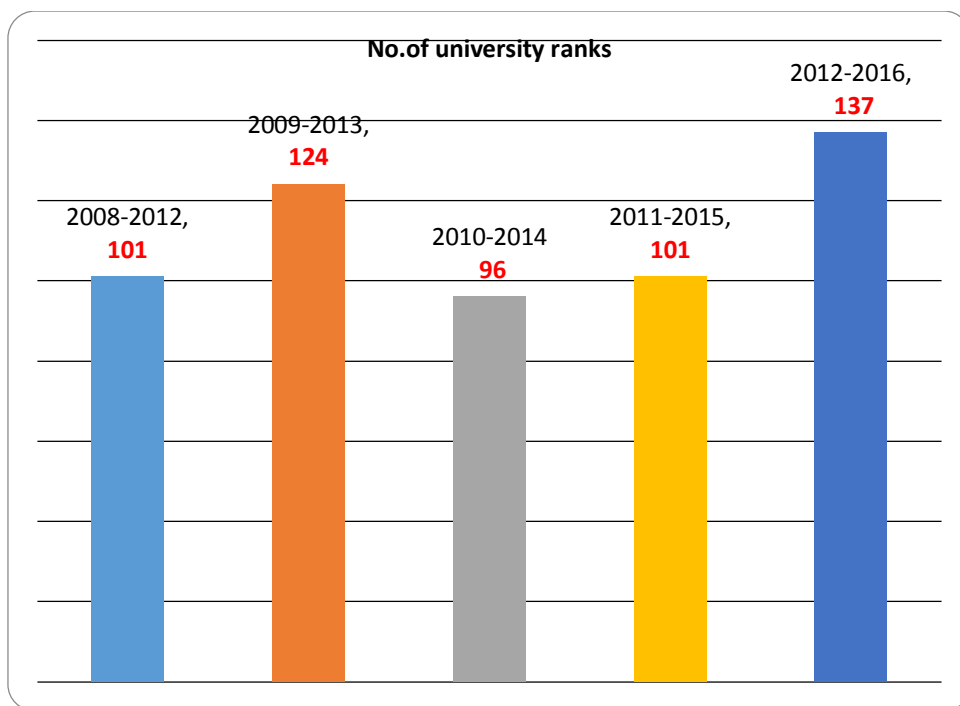
2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the students' results/achievements (Programme/coursewise for last four years) and explain the differences if any and patterns of achievement across the programmes /courses offered.

Achievements of learning outcomes are monitored through classroom teaching, Assignments, Test scores, performance in academics and performance in extra and co-curricular activities.

The Institution conducts internal assessment tests as per the Anna university schedule and the marks are analyzed on various parameters. The class in-charge compiles the marks obtained by the students in all courses in each test and analyses the performance with respect to

- Pass percentage and Number of failures in each subject
- Number of students failed in one/ two/ three subjects
- Overall pass percentage of the class
- Progress report indicating University marks, performance in internal assessment tests and the attendance are uploaded in the web portal and a copy is sent to their parents.
- Counselors personally inform the performance of identified slow learners to the parents.
- Parents of slow learners are called for a meeting, if necessary.





Overall College UG Result and Ranking

Month/Year	Nov/Dec 2012	Apr/May 2013	Nov/Dec 2013	Apr/May 2014	Nov/Dec 2014	Apr/May 2015	Nov/Dec 2015	Apr/May 2016
	12-13 ODD SEM	12-13 EVEN SEM	13-14 ODD SEM	13-14 EVEN SEM	14-15 ODD SEM	14-15 EVEN SEM	15-16 ODD SEM	15-16 EVEN SEM
Ranking	14	26	24	16	28	21	17	Not available
Based on Overall Pass %	79.56	81.24	73.46	87.26	78.65	85.32	81.92	86.26

The results reveal a consistent and commendable performance of the students in the university examinations which has placed the college among the top engineering Colleges in Tamil Nadu.

2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

The institution facilitates learning by providing a supportive, vibrant and challenging learning environment.

- Role of staff members in building a conducive learning environment is appreciable.
- The College recruits competent staff with right experience, skills and knowledge.
- The staff member prepares a lesson plan for each subject that covers the entire syllabus and estimated time to complete the same as per the academic schedule provided by the University.
- The faculty engages the students in group discussions, debates, quizzes, design contests, case studies etc. as per the requirement of the course to attain the course objectives.
- Use of audio-visual tools for teaching the engineering concepts enables the students to be more confident and develops an analytical mind.
- Evaluation processes are fair and transparent without any sort of discrimination thus ensuring a student-centric teaching learning process.
- At the end of the semester, the attainment of COs and POs is assessed by various feedback mechanisms and further improvement in the teaching – learning process is planned and executed.

Few teaching learning assessment strategies that facilitate the achievement of intended learning outcome are:

- Students submit two assignments per course to assess their subject knowledge.
- One period for Tech Club is assigned in class time table; all the students are motivated to present seminars on technical topics / social topics to improve the communication and interpersonal skills.
- Students' feedback on faculty once in a semester which helps faculty to improve their teaching effectiveness.
- Course exit survey at the end of every semester
- Analysis of internal assessment Test Performance by course in charges.
- Project Reviews provide the feedback on the suitability of the research process adopted by the students, methodology employed, analysis and interpretation of results etc .

The feedback on teaching effectiveness of the faculty is obtained through

- Class committee meetings (Department level)
- Online feedback system (Institutional level)

Class committee meetings:

Class committee chairperson is nominated by the HoD for each class at the beginning of the semester. The Chairperson organizes two class committee meetings per semester before the internal assessment tests. The meeting is convened by the chairperson with faculty

concerned, lab handling faculties, Year Coordinator, Class Advisors and student representatives, under the supervision of the HoD.

Students' representatives for class committee are selected by giving equal representation to all the students' sectors such as girls, boys, hosteller, Dayscholar etc. These meetings discuss the feedback of the students on the various academic aspects such as distribution of study materials, university question papers, syllabus completion, difficulties faced by students etc.

The minutes of the class committee meetings are documented for the purpose of Departmental Quality Reviews and for further improvement in teaching efficiency. The minutes are reviewed by the HoD and the academic coordinator and difficulties faced by the students, if any, are conveyed to the faculty concerned with suggestions.

On-line feedback system:

The on-line feedback questionnaire is designed to get useful feedback on the following aspects which measure the teaching effectiveness of the faculty.

The following factors have been considered while taking the feedback from the students

- Preparedness for handling class
- Engages classes regularly and maintains discipline
- Subject organized in logical sequence
- Speaks clearly and audibly
- Writes and Draws legibly
- Explains clearly and effectively the concepts/principles with appropriate examples
- Teacher covers the syllabus completely at appropriate pace
- Pace and level of instructions suited to the students' level of understanding
- Teacher asks questions to promote reflective thinking
- Ensures learner activity and problem solving ability in the class
- Encourages questioning/raising doubts by students and answer them well
- Compliments and praises originality and creativity of students
- Indicates important points
- Is courteous and unbiased in dealing with students
- Offers timely assistance and counselling to students
- Is available outside the class for discussion
- Inspires and motivates student
- Has a pleasant disposition
- Teachers marking of answer paper, fair and impartial

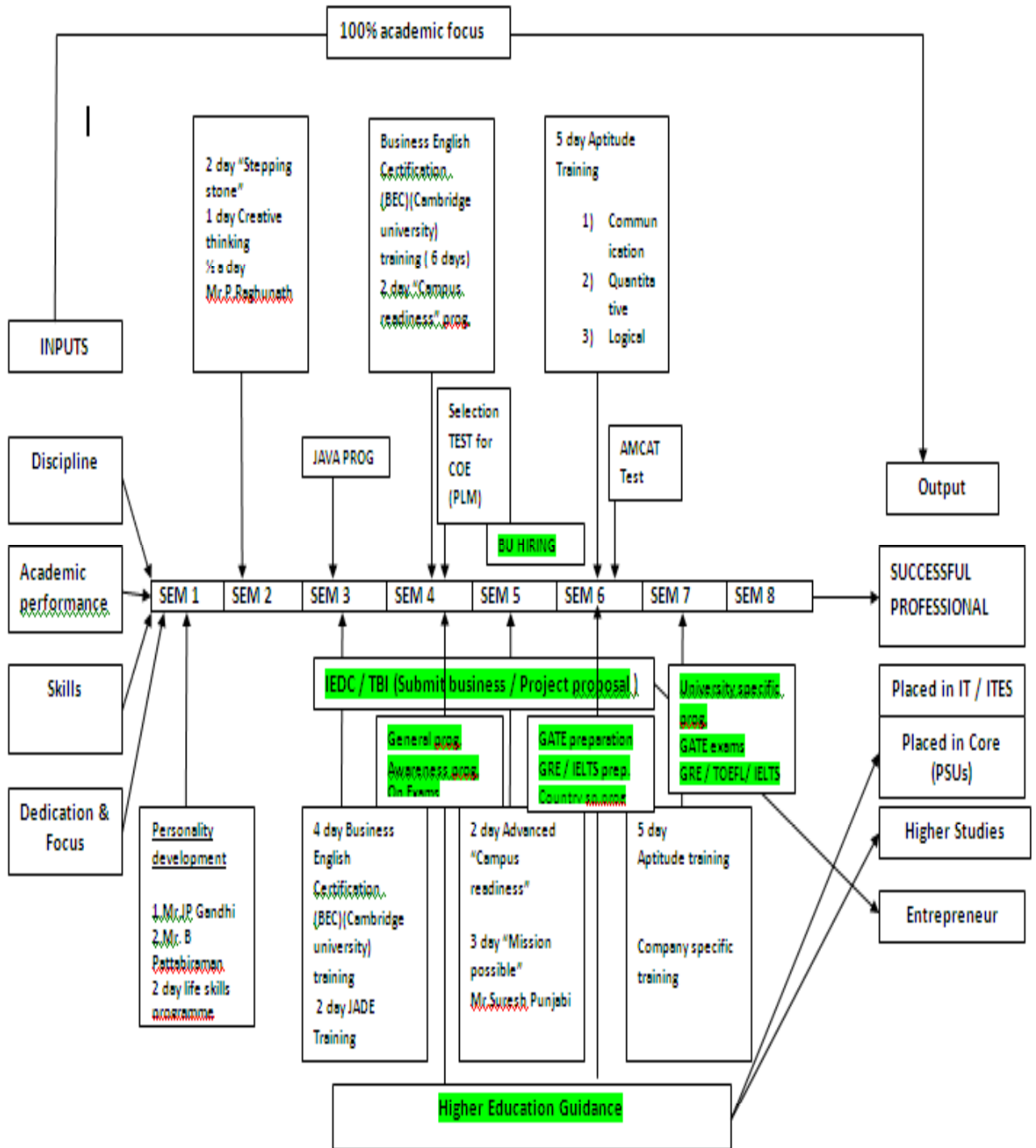
The Computer Centre Coordinator prepares a schedule for collecting the feedback. The consolidated data is sent to the Academic coordinator and Principal for further analysis. A copy of student feedback is given to the respective faculty members through HoDs which enables the faculty to understand their strengths and weaknesses and to enhance their teaching skills. The HoD guides the faculty member with appropriate recommendations and suggestions.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

It is an undeniable fact that the technical educational institutions have the responsibility in creating engineers / technologists who can find solutions to the problems of the society which is economically viable. The institution offers courses such as CE, CSE, ECE, EEE, EIE, IT and Mechanical engineering which are inextricably related to the welfare of the society. Further, the institution also is dedicated in the holistic development of their students by various “one – of – its-kind” initiatives such as

- Conduct of “project expo” to exhibit the students’ innovative and creative ideas in their core areas.
- Celebration of “Science Day” in the first year to encourage the students to exhibit their creativity through project demonstration.
- Conduct of national level technical symposia
- Bestowing the responsibility of conducting various functions and events on the students to develop confidence, better problem solving skills, better decision making capacity and leadership qualities which helps them to undertake challenging assignments in the future.

Our institution has structured committees like Training and Placement Cell, Higher Education Cell, Entrepreneurship Development cell, Research and Development Cell etc. for honing the multidimensional skills of the students and such activities are presented below:



Activities of Training and Placement Cell

A comprehensive presentation of the various initiatives of the institution in making the students an employable engineers and successful professionals is given:

Students' Placement

Training and placement cell is constituted with a placement officer, faculty placement coordinators and students placement coordinators. The cell organizes various training programmes to augment their class room learning and to make them employable in reputed industries.

Training

- The main objective of the training programmes focuses on personality development, communication improvement, logical thinking, interpersonal skills, time management, and confidence right beginning from the first year onwards.
- Training & Placement cell train the students to acquire skills in tune with industry requirements and arranges pre placement talks for On and Off Campus interviews.

The following table shows the various training programs offered to the students all the year.

Semester	Training Programme	Number of students benefitted in the past 3 years
1 st	Orientation Programme by Mr. Jayaprakash Gandhi	2872
	4 day Personality Development Training Programme	
2 nd	Training programme on scientific learning skills	2872
	Career consulting Programme by Mr.T.Raghunath	
	Motivation Programme by B.V.Pattabhiram	
3 rd	5 day Communication Skills BEC training Programme	3456
	2 day Personality Development Programme	
4 th	3 day Communication Skills BEC training Programme	3110
5 th	2 day Personality Development workshop by Mr.Suresh Punjabi	
6 th	Infosys Campus Connect Training for Interested Students	3110
	2 day Aptitude training Programme	
	Resume Writing Skills Workshop	
7 th	Aptitude test for campus interview preparation	2691
	Mock Interview – Tech & HR	
	3 day Aptitude training Programme by SMART Resources	
	2 day Refresher Training before Campus interview	

Aptitude Training

- Aptitude Training is given to students during their 3rd and 4th year in order to make them capable of attending all the competitive exams and interviews conducted by industries.
- Weekly online tests called SKILLRACK TEST and company specific online tests are conducted. AMCAT TEST score will be considered for taking up the placement activities.

Internship details

The following table shows the number of students year wise who got internship in various companies.

S.NO	ACADEMIC YEAR	DISCIPLINE	NO OF STUDENTS	NO OF COMPANIES	
				CORE	IT
1	2012-2013	B.E/B.Tech/M.E	65	-	3
2	2013-2014	B.E/B.Tech/M.E	51	-	4
3	2014-2015	B.E/B.Tech/M.E	83	1	12
4	2015-16	B.E/B.Tech/M.E	222	2	10
5	2016-17	B.E/B.Tech/M.E	136	6	9

PLACEMENT PROCESS AND SUPPORT

A dedicated placement cell provides platform that would bridge various companies across the globe with our talented students who have been nurtured with the best values and education of the institution.

- The cell continuously strives (24 x 7 x 365) to help the students to identify, focus and pursue their career options in their dream jobs in their dream companies.
- An astounding placement record distinguishes RMKEC from the rest of the institutions.
- RMKEC delivers the highest number of students year after year meeting the stringent eligibility criteria prescribed by the leading MNCs and reputed domestic players for recruitment.
- It has the credit of the best selection ratio (No. of students recruited vs. No. of students attended) by most of the recruiting companies.
- Our regular recruiters include 110 companies from IT & ITES sector and 115 from core sector.

Placement Statistics

YEAR	STUDENTS ELIGIBLE	STUDENTS PLACED
2012-2013	625	510
2013-2014	512	415
2014-2015	760	630
2015-2016	783	662
2016-2017	576	489*

*Placement in progress

CENTERS OF EXCELLENCE (CoE)

Centers of excellence are established to hone the critical thinking and analytical skills of the students through industry institute collaboration and value added courses. It is a team, a shared facility that provides leadership, best practices, research, support and/or training for a focus area. The focus area in this case might be a technology, a business concept, a skill or a broad area of study.

- It facilitates industry- institute interaction
- Exposes the students to latest technologies which provide hands-on-experience on emerging technologies.
- Provides internships, mini projects, in plant training and placement
- Establishes laboratory facilities at the college campus for the benefit of students.
- Enhances research activities for innovations and new product developments.

The Centres of excellence established at RMKEC with industry partners and their activities are given in the following table:

Facility Name	Utilization	Areas in which students are expected to have enhanced learning
Mitsubishi Electric India Pvt Ltd sponsored training on Factory Automation	40 hrs / sem	PLC programming , mini projects, Industrial projects
Lab-View (Virtual instrumentation)	80 hours / year	Embedded monitoring and control systems, Acquiring data and processing signals
SIEMENS	40 hrs/ sem	Automation of Electrical Drives
AAME (Arm processor - cortexM0+,M4	40 hrs/ sem	Advanced Microcontrollers
ALSTOM	50hrs/sem	Power System Protection and Switch Gear
IoT	24 hrs/ sem	Automation and Industrial control system, RTOS

Big Data- Cognizant iOS Laboratory under Digital Enterprise Centre of Excellence	24 hrs/ sem	Mac OS, Mobile App Development using Swift Language, Mobile App Development using Objective C
iNautix Big Data Analytics laboratory under Big Data Analytics Centre of Excellence	24 hrs/ sem	Java, Hadoop, Hive, Pig, Map Reduce, Programming, R Programming
Infosys Campus connect (C,C++ programming and softskills)	5periods/week	C,C++ programming
Product Lifecycle Management (PLM)	Computer System with software – CREO and Windchill PDM Link	(i)3D Modelling & Designing (ii) Concept of PLM, ERP, SAP, CRM and their relevance (iii) Interfacing Modeling with manufacturing aspects and production environment through PLM software
Building Management system (BMS)	90 HRS	Energy Efficient, R & AC, Sensors & transducers
Wipro PRP	120 HRS	C,C++ , JAVA
Embedded Systems	120 HRS	Embedded C & Hardware tools
Automotive Electronics	180 HRS	
Digital Enterprise, Mobility	180 HRS	Android and iOS

VALUE ADDED COURSES

Similar to CoEs training, all our students are given one or more certifications in any one of the following. These courses are identified as “the Necessities” of engineers for better career opportunities.

Department	Courses
CSE and IT	EMC / Oracle / IBM-DB2 / RAD / Tivoli /RFT training
EEE	Embedded Systems, Automotive Electronics
ECE	Telecom/Ericsson-Empower University Program / CISCO-CCNA
CE	MS - Project & Primevera
EIE	NI - LABVIEW Academy, BMS, Factory Automation
MECH	PLM

Activities of Higher Education Cell

The management of RMK Engineering College lays emphasis on the career counseling for the students for pursuing higher studies in abroad or in India. The Higher education cell is constituted with an overall coordinator and department faculty coordinators.

- The cell Organizes Seminars on “Higher Education at various Universities abroad” periodically.
- Organizes one-to-one counseling sessions on preparations, procedures for applying higher studies programme by the eminent University / institution representatives.
- The cell collects the data of the graduating students who aspire to study abroad and to maintain a comprehensive database through the department coordinator.
- The cell invites representatives of various universities and gives an insight to the students into the various courses available and admission procedures, cost of living etc.
- Partial list of universities visited to the campus:

Country	University
USA	<ul style="list-style-type: none"> • University of Central Florida • University of Missouri • Missouri state university • Illinois Institute of Chicago • University of North Carolina
Europe	<ul style="list-style-type: none"> • University of Leicester • University of Sussex • University of Uppasala, Sweden • University of Upper Austria, Austria
Australia	<ul style="list-style-type: none"> • University of Technology, Sydney • University of western Australia • University of southern Queensland
Asia	<ul style="list-style-type: none"> • University of technology, Korea • National university of Singapore

The list of programmes organized on higher education are listed in the following table.

Year	Programmes	Training
II year	<ul style="list-style-type: none"> • Awareness on Competitive examinations such as “GRE / TOEFL / IELTS / CAT • Awareness on “GATE Examinations” 	
III year	<ul style="list-style-type: none"> • “Education Abroad” by • USA – USIEF 	GRE / TOEFL / IELTS training for hostel students

	<ul style="list-style-type: none"> • UK – Education UK, British Council • Netherlands – NESO Desk • France – Campus France • Australia - IDP 	
	<ul style="list-style-type: none"> • Presentation on “Preparations for UPSC Examinations” 	GATE Training
IV year	<ul style="list-style-type: none"> • Writing SOPs and LoRs • University specific programmes • Education fairs 	

The following table shows the no of students went for higher studies in all the departments for the past three years.

Department	No of students gone for higher studies			
	2012-13	2013-14	2014-15	2015-16
CE	6	20	20	25
CSE	10	6	16	20
EEE	3	5	18	20
ECE	7	4	10	15
E&I	6	10	5	7
IT	12	14	3	5
ME	3	7	5	10
MBA	43	2	39	12

Activities of Entrepreneurship Development Cell

The institution has established an Entrepreneurship Development Cell that teaches the students on how to establish their own businesses and be –job givers and not –job seekers.

The entrepreneurship cell at RMK facilitates interaction between students with business ideas and industry stalwarts who can help students to develop and implement ideas into a business venture.

- The Cell organizes Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes and Skill Development programmer in the college for the benefit of Students.
- The RMK Engineering College has been accorded to establish Innovation Entrepreneurship Development Centre (IEDC) by the National Science & Technology Entrepreneurship Development Board (NSTEDB), in the academic year 2011-2012.

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTER (IEDC)

Every year this center is providing financial support to number of students for developing innovative Products (Up to one lakh rupees for each idea). Apart from this financial support the center provides mentoring and Infrastructural support for these projects.

List of IEDC projects completed in the last 4 years are given below:

S.No.	Name of the Project	Department
1	Solar aided portable refrigeration system “eco ref”	MECH
2	Wireless keyboard for visually impaired (applied patent filed no: 2345/che/2015 /dt.08.05.2015)	EIE
3	Photovoltaic driven thermoelectric refrigerator cum warmer for rural india(applied patent filed no: 3165/che/2014 /dt.30.06.2014, Status: awaiting examination)	EEE
4	Geogrid panels for low cost housing units	CIVIL
5	Design of intelligent autonomous air vehicle system for surveillance in gps-denied environment	ECE
6	Eco-friendly durable herbconcrete	CIVIL
7	Semi-automated vehicle for physically challenged people	MECH
8	Induction heating assisted low cost bio-diesel production plant (applied patent filed no: 11/che/2014 /dt.02.01.2014)	MECH
9	Effect of PWM technique for microbial inactivation under pulsed electric field (pef) liquied food preservation (applied patent filed no: 814/che/2015 /dt.10.08.2015, Status: awaiting examination)	EEE
10	Autonomous blimp	EIE
11	Design of feasible automatic insulin pump system	ECE
12	Efficacious cooling system centered upon establishing humidity control by encompassing (applied patent filed no: 1516/che/2015 /dt.25.03.2015)	EIE
13	Smart g shoes (this project has been selected for CII-AICTE-DST innovation competition 2015)	ECE
14	Solar irrigation pump using sterling cycle	MECH
15	Intelligent wheel chair with advanced direction control	EIE
16	Cloud farming	EEE

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

The Institution has specified procedure to collect and analyze data on student learning outcomes; the following points are adopted by the institute in this context:

- Continuous evaluation comprising of internal tests, assignments,
- Tutorials, class tests, Viva Voce in the laboratories
- End semester university examinations
- Mini projects
- Extra and co-curricular activities

The Institute has taken the following steps to overcome the barriers:

- Providing Question bank of various subjects to the students.
- Distributing answer books to students to make them understand their relative strengths and weaknesses.
- Internal Assessment Exam Results are analyzed by the faculty advisor of the class and it provides room to conduct coaching class for the slow learners.
- Conducting extra classes for slow learners to improve their performance.
- Class committee meeting conducted every month (refer Section 2.6.3)
- T & P department maintains feedback register by the recruiters about the students' overall performance which enables improvements in the skill development trainings.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The institution has a clearly defined process to monitor and ensure the achievement of the learning outcomes.

The indicators of the learning outcomes are:

- Performance in academics
- Performance in placements
- Performance in extra and co-curricular activities

a) *Performance in academics*

The learning outcomes are defined and measured at two levels-course outcomes (COs) and program outcomes (POs).

Conventional methodologies such as assignments, tutorials, tests, work practices, design problems are used to assess the student learning outcome. The PEOs are framed by the department whereas the course objectives are specified by the university.

The main forms of assessment carried out by the faculty include examinations and periodical tests. The other tools are projects, presentations, assignments and application oriented design processes. The faculty members develop action plans for overall improvement by collecting data and by taking critical corrective measures.

Description of Assessment Process of COs:

Assessment tool type	Assessment method	Assessment tool	Frequency	Description	Assessed by
Direct tool	Course Evaluation	Assignment	End of each unit	Course evaluation is done in every semester by the respective faculty to assess the achievement of course outcomes. In this process examinations at various levels and are used to assess whether the students acquired prescribed outcomes from that specific course.	Concerned Faculty
		Internal assessment	Twice in a semester		Concerned Faculty
		Model exam	Once in a semester		External faculty
		End semester examination	End of each semester		University
		Continuous evaluation of labs	Completion of each experiment		Concerned Faculty
		Project Evaluation	Three reviews are conducted and the evaluation is done at the end of completion of project		Project coordinators

Description of Assessment Process of POs & PSOs:

POs: Program outcomes focus on student learning. They identify the knowledge, skills, and attitudes that students are expected to acquire through their course of study in the program. Program Outcomes provide the direction on what a graduate of the particular program are expected to know, value upon completion of the program.

PSOs: Programme specific outcomes

The table given below explains the assessment tools and their significance for the attainment of POs and PSOs:

Significance and Frequency of Assessment Tools For Attainment Of POs and PSOs

Assessment method	Assessment tool	Frequency	Description	Assessed by
Course Evaluation	Assignment	End of each unit	Course evaluation is done in every semester by the respective faculty to assess the achievement of course outcomes and the	Concerned Faculty
	Internal assessment	Twice in a semester		Concerned Faculty

	Model exam	Once in a semester	contributed Program Outcomes. In this process periodic assessment of each unit is conducted assess whether the students acquired prescribed outcomes from that specific course. Also assignments are given to test the conceptual understanding by the student which is further evaluated.	External faculty
	Lab tests	Once in a semester		Concerned Faculty
	End semester examination	End of each semester		University
Project evaluation	Project evaluation survey	Completion of the project	The project is the overall outcome of the student's entire course work in the program. This evaluation is the major assessment method used to assess the students' abilities in problem analysis, design aspects, communication, presentation and solution suggested for the specific project.	Project review Committee
Indirect tools	Course end survey	End of each semester	Course end survey is done to assess the student's capability in understanding the subject to attain the corresponding course outcome	Faculty in charge
	Alumni survey	Once in a year	Alumni survey gives the feedback from the alumni, whether the graduand has gained sufficient knowledge from the program to sustain in his career.	Alumni coordinator
	Student exit survey	Completion of the Program	A Student exit survey is conducted to get their opinion about their knowledge gained in the program to obtain required abilities relating to Program	Program Coordinator

			Outcomes.	
	Employer survey	Every two years	Employers give their feedback about the quality of our graduates in terms of our PO's and current industry trends.	T&P Cell Coordinator

b) Performance in placements:

The training programmes for enhancing soft skills, interview skills, group discussion skills and aptitude are conducted regularly. The table given below explains the significant outcome in placements by these programmes.

DEPT		CSE	IT	ECE	EEE	EIE	ME	CE	Overall
2014	ELIGIBLE	68	86	76	98	42	71	29	470
	PLACED	67	79	75	66	36	55	14	392
	%	98.53	91.86	98.68	67.35	85.71	77.46	48.28	81.13
2015	ELIGIBLE	85	107	90	132	52	134	62	662
	PLACED	80	91	82	126	49	106	48	582
	%	94.12	85.05	91.11	95.45	94.23	79.10	77.42	88.07
2016	ELIGIBLE	70	94	131	130	98	173	66	762
	PLACED	69	89	119	116	89	125	45	652
	%	98.57	94.68	90.84	89.23	90.82	72.25	68.18	86.37
2017	ELIGIBLE	83	62	106	108	70	117	30	576
	PLACED	78	58	91	90	69	93	10	489
	%	93.98	93.55	85.85	83.33	98.57	79.49	33.33	81.16

c) Performance in extra and co-curricular activities:

The students are motivated to participate in various competitions at the institutional, state/ national/ international levels organized by reputed institutions and industry organizations. Partial list of such significant achievements are given below:

- Mr Kishore Aravanan , ECE Department , TOP 10 Winner Team of IBM The Great Mind Challenge 2015.
- Iokeshwaran Kamalakannan the winner in the action plan competition under the track Eradicating Extreme Poverty and Hunger at 12th Global Student Forum Empowering the Millennials held in the city of Seoul, South Korea.
- IV year Civil Engineering students won Third Prize in the Global Climathon Challenge 2016 held at CEG, Anna University organized by Centre for Entrepreneurship Development (CED), Anna university jointly with World Youth Federation India trust (Nodal Centre of EDI

Ahmedabad), Chennai.

- S Sivakumar was awarded 3rd position in AICTE Award for most promising student innovator at the 8th India Innovation Initiative National Fair 2016.
- Mr.N.Suresh IV year EEE is awarded Dr.Kalam young achiever award by World youth federation at Anna University on 15th October 2016.
- Ms. Nachammai Kannappan III year BE (Civil) for achieving BRONZE MEDAL in the 5th Asian Games Beach Sepaktakraw Event held at Vietnam.
- Ms.N.Loga Priya of final year ECE secured SECOND position in Asia Pacific & Japan 2016 CCENT competition & bagged FIRST position at All India level.
- Mr. Dilli Vignesh, III Year Civil Engineering is receiving STUDENTENGINEER AWARD 2016 from Dr. G.V. Uma, Controller of Examinations, Anna University, Chennai and Er. P. Selvakumar, Director Planning &Projects N.L.C Ltd., Neyveli on May 7th, 2016.The award consisted of a trophy, a certificate and a cash prize of ten thousand rupees.
- Mr. R.Madhan of IV year won Gold Medal in Anna University inter zonal boxing championship for men and gold and bronze medal in 5000mts and 1500mts in Anna University zonal athletic championship for men 2015-2016.
- Mr Logesh R G, Mr Hariharasubramanian R and Mr Kauarasan K J students of EEE Department secured First Place in the project competition titled Automatic Regulator for Gas Accidents with Double safety Measures organized by Institution of Engineers at Adhiyamman Engineering college
- TCS Best student project award Mr K Balasubramanian Head PLM and Mr A K Pattabiraman Head Accreditation for South India, awarded to Mr Muthukalai P and Jerome Michael M of CSE Department for e-cheque using android project
- Final year Mech, EEE and ECE Students , Team Hyperions INC secured first place in virtual round of ISIE Hybrid Vehicle Challenge 2015-2016 held at Bangalore.
- Ms.Malvigha V, Final Year ECE has been selected as one of the five students from India, by the Indian Society for Technical Education (ISTE) to participate in the 11th Global Student's Forum (GSF) to be held at Florence, Italy from 17th-24th September, 2015.
- Mr. P Karthik of IV year EEE and Mr. D Revan Kumar of IV year Mech. Engg for securing best paper award in International conference
- Ms.Kalaivani K, Ms.Karmegaselvi P, Ms.Keerthana C, Ms.Madhumitha M, Final ECE Winners of Technical Paper Competition conducted by Johnson Controls India Pvt Ltd held on 18.06.2015 at Mumbai.
- Lokesh Babu T G receiving Rahstrapati Award from our Honorable President Pranab Mukerhjee on 16 February 2015 at Durbar Hall, Rashtrapati Bhavan, New Delhi.

- Mr.R.Damodharan, (II Year B.E. Mechanical Engineering) is among the winners of the essay competition conducted by National Productivity Council (NPC), on the theme : MAKE IN INDIA: ZERO DEFECT, ZERO EFFECT, as a part of Productivity Week Celebrations 2015.
- Abirami.G, Jaya shree.M, Jeevitha.N, Final Year ECE for securing First Prize in ARM Design Contest 2014

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If ‘yes’ provide details on the process and cite a few examples.

Yes,

- The institution uses assessment / evaluation outcomes as an indicator for evaluating learning outcomes and achievement of learning outcomes.
- At the beginning of each semester, the departments and the faculty fix the target results to be achieved.
- Based on the targeted results, faculties use different innovative teaching methodologies to teach the concepts. Stringent steps are taken to complete the portions on time.
- Each class begins with the recapitulation of the previous class learning and ends with the summary of current learning.
- Assessment tests are conducted periodically and performance of the students in the tests are evaluated.
- The institution also uses the evaluation and assessment measures to check whether the objectives of the programme are fulfilled by the course.
- After completion of every internal assessment test, the course outcome (CO) is checked with the PO attainment and analyzed by the heads of various departments.

CRITERION III : RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?

R.M.K Engineering College, approved by All India Council for Technical Education (AICTE), New Delhi and affiliated to Anna University, Chennai has established a centre for Research and Development for the purpose of inculcating and developing research culture in the institution.

The following are the research centers approved by the Anna University:

- Science and Humanities – Physics & Chemistry
- Computer Science and Engineering
- Electrical and Electronics Engineering
- Electronics and Communication Engineering
- Information Technology and
- Mechanical Engineering

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

Yes. The institution has a Research Committee to monitor and address the issues of research activities. The committee consists of the Principal, Dean, Academic Coordinator, HODs and Professors of all the departments.

Recommendations of the Research Committee are given below:

The committee

- facilitates to create a research culture among the students and faculty members.
- encourages the faculty members to enroll for Ph.D. Programmes in their fields of interest.
- assists and guides the faculty members to apply for research project proposals.
- helps the faculty members to organize State/National/International level Seminars/Conferences/Workshops
- motivates the faculty members and students to publish research papers in reputed National and International journals.
- Assists the faculty members and students in filing for patents.
- motivates the faculty members to take up research and consultancy projects.

Impact of the Recommendations

- Research culture is persistent among the faculty members and students.
- Received sponsors of Rs.21,23,000/- from funding agencies like AICTE, DST for RPS, MODROBS
- Generated revenue of Rs.10,57,700/- through Industry Consultancy Projects
- Received Rs.39,00,000/- from IEDC for student's projects
- 20 faculty members were awarded Doctorate degree
- 50 faculty members are currently pursuing doctoral degree programme
- 6 patent applications were filed
- 508 research publications were published in reputed journals
- 98 consultancy projects were obtained for the past four years

3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects?

- Principal investigator enjoys the autonomy to implement the project.
- Heads of the Departments readily cooperate with the Principal investigator to ensure the timely availability of resources for the execution of the projects.
- Research centers are equipped with adequate computing facilities to carry out research activities successfully.
- Principal Investigators and research associates are provided with privileges such as on duty, paid leave and permission as required.
- Their teaching workloads are adjusted and reduced if necessary, so as to enable them to finish their research work in time.
- They are encouraged to attend national/international level conferences/workshops/seminars.
- Registration fee and travel grants are sanctioned for both the Principal investigators and research associates.
- Departments provide facilities such as personal computer with internet connectivity, on-line access to e-journal papers, etc.
- Investigators are encouraged to publish technical books as a part of their research activities.
- They are assisted to facilitate timely auditing and submission of utilization certificate to the funding authorities.

3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- Our college provides conducive atmosphere to create research culture and develop scientific temper among the students.
- Students are allowed to attend National and International level Conferences / Workshops / Seminars conducted / organized by the reputed Institutions/Research labs
- Institution provides financial assistance for the students to attend Conferences / Workshops / Seminars
- Students are involved in organizing National / International level Symposium, Conferences / Workshops / Seminars
- Project competitions are conducted every year and cash prizes are given for the best projects
- Students are encouraged to publish research papers in the reputed National / International journals and present papers in the National / International level Conferences / Workshops / Seminars
- Students are allowed to attend / organize guest lectures delivered by eminent field experts
- Students are encouraged to apply for patents and research projects
- Students are permitted to visit the research lab and interact with field experts
- Students are provided internet facilities, accessibility for e-journals, etc
- Students are allowed to undertake their UG projects in collaboration with reputed core and IT companies
- Faculty members involve the students during the execution of their funded projects
- Students are permitted to participate actively in the intra-departmental research activities

Table 3.1.1 gives the details of our student’s participation in the Conferences, Design contests, Symposium and Paper Presentation in other institutions.

Dept.	No. of Participants			
	2015-16	2014-15	2013-14	2012-13
Civil	253	224	46	140
CSE	297	576	57	265
EEE	589	135	111	137
ECE	310	906	76	158
EIE	200	334	66	42
IT	695	751	251	248
MECH	217	286	164	165
MBA	--	8	30	9
MCA	--	13	30	100
Total	2561	3233	831	1264

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)

Our faculty members, listed in the Table 3.1.2, have obtained Research Supervisor recognition from Anna University, Chennai. They are guiding students for their Ph.D Programme under our research centres. The involvement our faculty members in active research leads to get research projects from various funding agencies, signing MoUs and carrying out collaborative research work with reputed institutions/industries/research labs.

Table 3.1.2 contains the list of recognized supervisors of our institution

S.No	Department	Supervisor	Area of Specialization	No. of PhDs awarded	No. of PhDs in progress
1	Science and Humanities (Chemistry)	Dr.V.Srinivasan	Nano Materials	-	01
2	Computer Science and Engineering	Dr.S.Pavai Madheswari	Theoretical computer science and Stochastic Processes	2	7
3	Science and Humanities (Physics)	Dr.S.Arjunan	Material Science	-	02
4	Science and Humanities (Physics)	Dr.G.Nixon Samuel Vijayakumar	Nano Materials/ Material Science	-	-
5	Computer Science and Engineering	Dr.K.LShanmuganathan	Computer Science and Engineering	4	8
6	Computer Science and Engineering	Dr.C.Jayakumar	Computer Science and Engineering	4	7
7	Computer Science and Engineering	Dr.T.Sethukarasi	Computer Science and Engineering	-	7
8	Computer Science and Engineering	Dr.B.Jaison	Computer Science and Engineering	-	2
9	Information Technology	Dr.T.Gnanasekaran	VLSI,Cloud / Grid Computing and Image Processing	1	3
10	Electronics and Communication Engineering	Dr.R.Siva Kumar	Signal Image Processing/VLSI Design	2	10

11	Electronics and Communication Engineering	Dr.M.Devaraju	Optical and Digital Communication	-	2
12	Electronics and Communication Engineering	Dr.S.Ramasamy	Mixed Signal VLSI Design	-	2
13	Electrical and Electronics Engineering	Dr.C.Chellamuthu	Power Electronics	10	4
14	Electrical and Electronics Engineering	Dr.N.M.Jothi Swaroopan	Power System	-	4

3.1.6 Give details of workshops/training programmes/sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbuing research culture among the staff and students.

Conferences, Technical workshops and Faculty development Programmes organized by the departments from 2012 to 2016 for improving research and development activities in the institution are given below.

CIVIL ENGINEERING:

- One-day National Conference on “**Latest Advancements in Civil Engineering (LACE 2015)**” was organized by Department of Civil Engineering on 20th April 2015.
- ISTE sponsored 4th National Conference on **Latest Advancement in Civil Engineering (LACE -2014)** was conducted by department of Civil Engineering on 03rd April 2014.
- Department of Civil Engineering has organized a Two Days National Workshop on “**Challenges and Opportunities in Solar Photo Voltaics – An Emerging Energy Research**” was sponsored by AICTE, during 19th & 20th December 2013.
- Course on “**Innovations in Concrete Technology**” was conducted by Department of Civil Engineering on 23rd February 2013.

ELECTRICAL AND ELECTRONICS ENGINEERING:

- National Conference on “**Recent trends in Power Electronics and Power Systems**” on 9th March 2015 was conducted by Department of Electrical and Electronics Engineering.
- A workshop on “**Robotics**” by Department of Electrical and Electronics Engineering was conducted on 19.08.2014, 20.08.2014 and 22.08.2014 & 23.08.2014.

- A Faculty Development Training Programme on “**Solid State Drives**” was organized by Department of Electrical and Electronics Engineering from 07.12.2014 to 12.12.2014.
- Workshop on “**How to Plan, Write and Publish Research Paper in Referred Journal**” was conducted by Department of Electrical & Electronics Engineering on 07-12-2013.
- Workshop on “**Optoelectronic devices and Embedded systems**” was conducted by department of Electrical and Electronics Engineering on 03-01-2014.
- National Conference on “**Recent Trends in Power Electronics and Power Systems**” was conducted by Electrical and Electronics Engineering department on 31-03-2014.
- A Faculty Development Training Programme on **Power System Analysis** organized by Department of EEE and was sponsored by Anna University held from 29-11-2012 to 07-12-2012.

ELECTRONICS AND COMMUNICATION ENGINEERING:

- 7 days Faculty Development Training Programme on “**Medical Electronics**” from 02-01-2016 to 09-01-2016 organized by Department of Electronics and Communication Engineering sponsored by Anna University, Chennai.
- “**IOT Workshop**” was organized by Department of Electronics and Communication Engineering from 29-10-2015 to 31-10-2015.
- One-day National Conference on “**Digital Convergence**” was organized by Department of Electronics and Communication Engineering on 23rd March 2015.
- A Faculty Development Training Programme on “**Digital Image Processing**” organized by department of Electronics and Communication Engineering and was sponsored by Anna University held from 05-06-2013 to 06-12-2013.
- A Faculty Development Training Programme on “**Hands on Training on Design Finishing for Chip Tape out**” organized by department of Electronics and Communication Engineering and was sponsored by AICTE held from 17-06-2013 to 29-06-2013.
- National Conference on “**Digital Convergence 2014**” was conducted by department of Electronics and Communication Engineering on 24-03-2014.
- Workshop on “**Timing Closure and Functional verification in VLSI design**” was conducted in the department of Electronics and Communication Engineering on 29th December 2013

COMPUTER SCIENCE AND ENGINEERING:

- 6th National Conference on “**Research issues in Computer Science and Engineering**” was held on 9th March 2015 sponsored by Computer Society of India.
- Workshop on “**Big Data Hadoop**” was conducted on 3rd and 4th March 2015 by Department of Computer Science & Engineering, sponsored by CSI.
- A Faculty Development Training Programme on “**Cloud Computing**” was conducted by Department of Computer Science and Engineering during 04th December 2013 -11th December 2013.
- 5th National Conference on “**Research Issues in Computer Science & Engineering**” in the department of Computer Science and Engineering on 10th March 2014.
- Department of Computer Science and Engineering has organized an International Conference on “**Advances in Computing, Communications and Informatics - ICACCI'12**” during 03-08-2012 to 05-08-2012.

ELECTRONICS AND INSTRUMENTATION ENGINEERING:

- National Workshop on “**Lab VIEW**” was organized by Department of Electronics and Instrumentation Engineering from 01-06-2015 to 05-06-2015.
- National Conference on “**Advancements in Embedded systems, Control and Industrial Instrumentation**” was conducted by Department of Electronics and Instrumentation Engineering on 23rd March 2015 sponsored by ISOI, ISTE, Trend Automation and Instrumentation Pvt. Ltd.
- Workshop on **PLC and Embedded Systems** was conducted on 11-0-2013 in Electronics and Instrumentation Engineering.

INFORMATION TECHNOLOGY:

- National Conference on “**Information and Communication Engineering**” by Department of Information Technology sponsored by ISTE conducted during the academic years 2012-13, 2013-14, 2014-15 & 2015-16.
- 2 Day Workshop on “**Robotics**” was conducted by Department of IT on 11th and 12th February 2015.
- 2 Day Workshop on “**Android**” was conducted by Department of IT on 05th and 06th February 2015.
- National Workshop on “**Android Basics and Mobile Application**” was conducted by department of Information Technology, during 20-07-2014 & 21-07-2014.

- National Workshop on “**Socket Programming and Network Simulation using NS2**” on 14-12-2012 in the Department of Information Technology.

MECHANICAL ENGINEERING:

- National Conference on “**Recent Innovation in Mechanical Engineering**” was conducted by Department of Mechanical Engineering on 09th March 2015.
- One-day National Conference “**Recent Trends innovations on Mechanical Engineering**” was conducted by Department of Mechanical Engineering on 24-03-2014.
- One-day Workshop on **PLM** on 28th August 2012 was conducted by Department of Mechanical Engineering
- Workshop on **Design for Manufacture** was conducted by department of Mechanical Engineering National Workshop on “XML and Web Services on 15-03-2012.

TRAINING PROGRAMME FOR FACULTY MEMBERS:

- 1 Day Faculty Development Programme was arranged by M/s. Wipro Technologies Ltd at Siruseri on “**Expectation of the Interviewer – Technical and HR**” for HoDs and Professors.
- Toast Masters Club was arranged for the faculty in our campus to learn-by-doing workshop in which participants hone their **speaking and leadership skills** in a no-pressure atmosphere.
- 2-day National Conference on “**Recent Trends in Instrumentation and Control for Industrial Applications**”, in Technical Collaboration with ISOI was conducted on 21st and 22nd April 2014.
- Course on **Lab VIEW Core 1 and Core 2** was conducted in July and August 2012, September 2012 and January 2013 by National Instruments, Bangalore.

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Table 3.1.3 gives the faculty names with their research fields

S.No	Department	Name of the Faculty	Area of Specialization
1	Science and Humanities (Maths)	Dr.N.Golden Stepha	Computational Fluid Dynamics
2	Science and Humanities (Maths)	Dr.T.R.K.Kumar	Complex Analysis
3	Science and Humanities (Maths)	Dr.G.Thirupathi	Complex Analysis

4	Science and Humanities (Physics)	Dr.S.Arjunan	Material Science
5	Science and Humanities (Physics)	Dr.G.Nixon Samuel Vijayakumar	Nano Materials/ Material Science
6	Science and Humanities (Physics)	Dr.D.Sudha	Crystallography
7	Science and Humanities (Physics)	Dr.P.S.Latha Mageshwari	Material Science
8	Science and Humanities (Chemistry)	Dr.V.Srinivasan	Nano Materials
9	Science and Humanities (Chemistry)	Dr.M.Meena	Phase Transfer Catalysis and Polymerisation
10	Science and Humanities (Chemistry)	Dr.P.Bala Ramesh	Electroless plating
11	Science and Humanities (Chemistry)	Dr.R.Thinesh Kumar	Catalysis
12	Science and Humanities (English)	Dr.S.Anita Evelyn	Comparative Literature
13	Science and Humanities (English)	Dr.A.Gnanavathe	Indian Writing in English
14	Science and Humanities (MCA)	Dr.S.Radhika	Image Processing and Neural Networks
15	Civil Engineering	Dr. Binu Sukumar	Self-Compacting Concrete/ Concrete Composites/ High Performance Concrete / Fibre-Reinforced Concrete
16	Civil Engineering	Dr. M. Usha Rani	Structural Engineering
17	Civil Engineering	Dr.T.Murali Krishna	Remote Sensing and GIS Applications in Water Resources Engineering/ Surface and Ground Water Hydrology /Rain Water Harvesting
18	Civil Engineering	Dr.S.Sudhakar	Soil Mechanics and Foundation
19	Civil Engineering	Dr.K.K.Sivagnanprabu	Chemical Engineering
20	Computer Science and Engineering	Dr.S.Pavai Madheswari	Theoretical computer science and Stochastic Processes
21	Computer Science and Engineering	Dr. K. Manivannan	Heat and Mass Transfer Effects on Oscillating Vertical Plate
22	Computer Science and Engineering	Dr. Sandra Johnson	Information and Communication Engineering
23	Computer Science and Engineering	Dr.T.Sethukarasi	Computer Science and Engineering
24	Computer Science and Engineering	Dr.B.Jaison	Computer Science and Engineering

25	Information Technology	Dr.T.Gnanasekaran	VLSI, Cloud/Grid Computing and Image Processing
26	Information Technology	Dr. K. Vijaya	Data Mining / Network Security / Database Management System / Data Structures
27	Electronics and Communication Engineering	Dr K.A.Mohamed Junaid	Image Processing and Networks
28	Electronics and Communication Engineering	Dr. Elwin Chandra Monie	VLSI, Image Processing
29	Electronics and Communication Engineering	Dr.R.Siva Kumar	Signal Image Processing/VLSI Design
30	Electronics and Communication Engineering	Dr.T.Blesslin Sheeba	Cryptographic Algorithms for Resource Constrained Environments
31	Electronics and Communication Engineering	Dr.T.Suresh	VLSI, Reconfigurable system
32	Electronics and Communication Engineering	Dr.T.V.Padmavathy	Wireless Sensor Networks
33	Electrical and Electronics Engineering	Dr.C.Chellamuthu	Power Electronics
34	Electrical and Electronics Engineering	Dr.N.M.Jothi Swaroopan	Power System
35	Electrical and Electronics Engineering	Dr. Geetha Ramadas	Electrical Machines/ Design and Analysis/ Control Systems
36	Electrical and Electronics Engineering	Dr Y Sukhi	Power Electronics
37	Electrical and Electronics Engineering	Dr.T.Mahesh	Power system
38	Electrical and Electronics Engineering	Dr.S.Anita	Engineering Sciences
39	Electronics and Instrumentation Engineering	Dr. Vijayalakshmi S	Information and Communication Engineering
40	Electronics and Instrumentation Engineering	Dr.Kavitha P	Special Machines
41	Electronics and Instrumentation Engineering	Dr. Priya C	Process Controls
42	Mechanical Engineering	Dr. K.Chandra Sekaran	Composite Material Mechanics

43	Mechanical Engineering	Dr. K.R.Senthil Kumar	Internal Combustion Engineering
44	Mechanical Engineering	Dr. S. Sambath	Production Engineering
45	Mechanical Engineering	Dr. A.Kadirvel	Industrial Engineering
46	Mechanical Engineering	Dr. R.Suresh Kumar	Thermal Engineering
47	MBA	Dr. R. Vellaiputhiyavan	Human Resource Management
48	MBA	Dr.S.Sankaran	Finance
49	MBA	Dr.S.D.Uma Mageswari	Knowledge Management in Manufacturing Companies

3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence visit the campus and interact with teachers and students?

Institution invites the researchers of eminence to the campus and arranges various technical sessions like seminars, workshops and conferences frequently to interact with teachers and students. Moreover, faculty members visit the industries and interact with eminent people related to their research areas.

Some of the eminent researchers who visited our institution are listed below.

- **Dr. S.K.Patnaik**, Director (RIFD) Buerau, AICTE
- **Dr.Patrick Yesudian**, Dermatologist/Cosmetologist, Patron and Chief Consultant, Apollo Hospitals, Chennai
- **Dr. R.Venkatesan**, Scientist – G, NIOT, Ministry of Earth and Sciences
- **Dr.Sundaresan Krishnan Iyer**, Principal, Education and Research, Infosys
- **Dr. Seeram Ramakrishna**, Director – Research, Nano Fibers and Nano Technology
- **Mr. Toshrio Yokota**, General Manager, Unicharm India Pvt.Ltd, Sricity
- **Mr. K.Chitrarasu**, Head – R&D, Lucas TVS
- **Mr. Udhaya Shankar** and **Mr. Yuthistra Yadav**, NASSCOM
- **Dr.T.Thyagarajan**, Professor–Dept.of Instrumentation Engineering, Anna University
- **Prof.Pratapsink K Desai**, President – ISTE, New Delhi
- **Dr. J.Prabakara**, Sr.Principal Scientist, SERC, Taramani, Chennai
- **Mr.V.Masilamani**, IITDAM, Kanchipuram
- **Prof.K.Baskar**, Director, Crystal Growth Centre, Anna University, Chennai
- **Dr. Anjeneyaswami**, Former Director, DDE and Professor, School of Mgmt. Pondicherry University
- **Mr.B.Ravikumar**, Patent and Trademark Consultant.
- **Dr.San Murugesan**, Director and Principal Consultant of BRITE Professional

Services, University of Western Sydney, Australia

- **Dr. Ines Arana**, Technical Test Lead Robert Gordon University, UK
- **Prof. John P.R.David**, Department of Electrical and Electronic Engineering, University of Sheffield, U.K
- **Prof. A K Chandiran**, Laboratory of Photonics and Interfaces, Swiss Federal Institute of Technology(EPFL), Lausanne, Switzerland
- **Dr.P.Narayanaswamy**, Director, Anna University, Chennai
- **Dr.S.Arul Jeyachandran**, Professor , IIT Madras

3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

On Duty is granted to our faculty members who are doing research in part time for taking up their course work examination. The faculty members are also granted short term leave for research purposes and are treated as on-duty. Former Principal Dr. Elwin Chandra Monie has been granted sabbatical leave to undergo Postgraduate course on Advance Medical Imaging at K U Leuven, Belgium.

3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

The following are some of our student's projects which are in use of our community:

- Wireless Keyboard for Visually Impaired
- Photovoltaic Driven Thermoelectric Refrigerator Cum Warmer for Rural India
- Induction Heating Assisted Low Cost Bio-Diesel Production Plant
- Effect of PWM Technique for Miceobial Inactivation Under Pulsed Electric Field (PEF) Liquied Food Preservation
- Efficacious Cooling System Centered upon Establishing Humidity Control by Encompassiang
- Smart G Shoes
- Low Cost Crop Monitoring and Data Logging Using Cloud
- Intelligent Wheel Chair Control with Automatic Breaking Systems
- Desiccant Cooling Technique for Air Coolers
- Solar Irrigation Pump Using Sterling Cycle
- Smart Farming using IoT

- Life Saving Gadgets (Smart Helmet and Smart Watch)
- Thermoelectric Mobile Charging with DC-DC Boost Converter using Peltiers
- Smart Tyre Pressure Handler
- Smart Driving Pattern Analysis System

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

Our institution allocates sufficient amount of fund in every year budget for carrying out research and development activities and the same is fully utilized for research purposes.

Table 3.2.1 shows the year wise fund allocated for the research

S1.No	Academic Year	Financial Allocation and Utilization
1	2015-16	Rs 410000
2	2014-15	Rs 420000
3	2013-14	Rs 360000
4	2012-13	Rs 250000

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Yes.

Faculty members are asked to submit the research proposals to the research committee. On scrutinizing the proposals, the committee recommends to sanction funds for the selected proposals.

3.2.3 What are the financial provisions made available to support student research projects by students?

The institution encourages the students to do research projects and provides financial assistance to carry out the projects.

Table 3.2.1 shows financial assistance given to the students to carry out the research projects:

Department	Title of the Project	Name of the Students	Name of the Mentor	Sanctioned Amount(Rs)
EEE	Life Saving Gadgets	S.Sivakumar III Year	Dr.N.M.Jothi Swaroopan Professor	1,00,000/-

	Smart Farming using IOT Technique	N.Suresh IV Year	Dr.N.M Jothi Swaroopan Professor	1,00,000/- (Completed)
	Cloud Farming	Mr.P.Karthick III Year	Dr.N.M Jothi Swaroopan Professor	1,00,000/- (Completed)
	PVM Technique for Microbial Inactivation Under Pulsed Electric Field	Mr.E.Kaleeswaran & Mr.Manivanan IV EEE	Mrs.Alhamdhu Nisha Assistant Professor	1,00,000/- (Completed)
EIE	Thermo Electric mobile charging with DC-DC Boost converter using peltiers	Aishwarya V Kalaivani K Monika K	Dr.P.Kavitha Associate Professor	1,00,000

3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

Some of our faculty members are carrying out research work in collaboration with other department faculty members.

- **Dr. S. Pavai Madheshwari**, Researcher in the field of Theoretical Computer Science and Stochastic Processes guides the students from the Department of Science and Humanities.
- **Dr. R. Sivakumar**, Researcher in the field of Signal Image Processing and VLSI Design guides the students from other departments
- **Dr.C.Chellamuthu**, Researcher in the field of Power Electronics guides the students from other departments
- The Most Synchronized Team” Award and “The Most Safest Cart “Award for the project done by Electrical and Electronics Engineering and Mechanical Engineering students
- Researchers are utilizing inter-departmental facilities such as special softwares and they are taking up the expertise of the other departments.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If ‘yes’ give details.

Yes.

The institution has received financial support from various industries to develop research facilities in the institution. The details are furnished in Table 3.2.2.

The Total Amount Sponsored by the Industries for creating Centre of Excellence (CoE) Laboratory is Rs 57, 56,000/-

Table 3.2.2 shows financial assistance received from industries:

Year of Establishment	Department	Name of the CoE	Equipment/ Purchased/ Sponsored
2016-17	CSE	Information Security Laboratory	Tools Installed and Sponsored by TCS
	ECE	TELECOM	Systems with Telecom Software
	EEE	Automotive Electronics Laboratory	KPIT and R M K Engineering College
		Embedded System Laboratory	Wipro Technologies Ltd.
2015-16	CSE	Big Data Laboratory	Big Data Software Tools Sponsored by iNautix
2014-15	EIE	Factory Automation	Q PLC Training Setup, FX PLC Training Setup, IQ Platform Programming Software, iQR Training Set up, iQ Works Programming Software(Model: SW1DNDIND-IQWK-E)
	CSE	IoS Laboratory	30 MAC Machines and 4 iPads Sponsored by CTS

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.

Our institution

- organizes orientation programmes on ‘how to write project proposal’
- provides OD to visit the research lab and interact with field experts
- provides financial assistance to attend conferences/workshops/seminars
- provides e-journal, printed journal and high speed internet facilities. The library has been well equipped with required books

- reduces the teaching workloads for the faculty members to get enough time for their research

Table 3.2.3 shows the details of ongoing and completed projects:

Department	Name of the Funding Agency	Title of the Project	Status
CSE	AICTE QIS	Advanced Controllable Packet Information Analysis and Security Lab	Applied
CIVIL	AICTE	Upgradation of Strength of Materials Lab	Applied
EEE	Micro small and Medium scale enterprises (MSME)	Life Saving Gadgets	Sanctioned
	Suguna Motors and Pumps	Optimal Pulse Width Modulation For Dual-Inverter Fed Induction Motor Drive	Completed
	Jasmine Concrete Exports Pvt Ltd	Estimation of Fuel Tank Capacity Using Ultra meter	Completed
	Citadel Controls Pvt LTD	H.A.N.D.(Human Android Device)	Completed
	Advance Technologies	Contemporary Real Time Electric Meter for Supervision of Power Demand	Completed
	Future Farms	Monitoring of Sewer Flooding	Completed
	Solar energy solutions Pvt. Ltd.	Study and Simulation of Standalone PV Systems	Completed
	Alpha Engineering Works	Study of Performance Improvement in Solar Panel	Completed
	Vi Micro Systems	3 Level Neutral Point Diode Clamped Inverter Fed DTC Induction Motor	Completed
	Alpha Engineering Works	Design of Horizontal Wind Mill	Completed
EIE	Mitsubishi Electric India Private Limited	Automated Variable Sized Bottle Filling Process using PLC	Completed
	igreen Technologies	HI-TECH Baby	Completed

	E-Dot Technologies	Portable Voice Recognition and Motion Detection Smart Box using Android Application	Completed
	MKM Technologies	Efficient Solar Photovoltaic Power Generation System using Sun Tracking System and MPPT Algorithm	Completed
IT	AICTE	Reconfiguration Of Optical Networks For Dynamic Traffic	Ongoing

3.3 Research facilities

3.3.1 What are the research facilities available to the students and research scholars with in the campus?

The following facilities are available to the students and research scholars.

- Laboratories of the departments are well equipped with advanced equipments and softwares to support the research and consultancy work.
- CoE Laboratories have been established in the departments in association with leading industries like PLM, Wipro telecom. (Refer to 3.2.6)
- High end computing and library facilities.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

The emerging areas of research are identified by the Research Committee and the research budget is prepared and sanctioned for efficiently carrying out research activities.

- In addition, all the students and faculty members are encouraged to submit proposals to funding agencies to obtain research funds which would help to improve the existing infrastructure.
- Moreover, the institution has MoUs with leading industries which contribute to its efforts in further improving the research facilities.
- Our Institute’s Long term plan is in place to establish Centres of Excellence in all the emerging areas.
- In order to promote collaborative research, faculty and students are always fortified to interact with industries for exploring the new research domains.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If ‘yes’, what are the instruments / facilities created during the last four years.

Yes.

Table 3.3.1 gives the details of the funds received from the industry and other funding agencies:

Sl. No	Year	Applicant Name	Title	Amount (Rs.)	Funding Agency
1.	2016	Dr.Geetha Ramadas	Cloud Forming	100000	IEDC
2.		Dr. K.A. Mohamed Junaid	Desiccant Technology in Air Coolers	100000	IEDC
3		Dr. K.A. Mohamed Junaid	Intelligent Wheel Chair with Advanced Direction Control	100000	IEDC
4		Dr. K.A. Mohamed Junaid	Automatic Regeneration of resin in strong acid cation vessel in DM Plant	75, 000	Trend Automation
1	2015	Dr. K.Vijaya	Reconfiguration of Optical Networks for Dynamic Traffic	5,47,000	AICTE
2		Dr.T.N.Srikantha Dath,	Design and Development of an affordable bed for elderly and terminally ill patients for preventing decubitus ulcer	740000	Department of Science and Technology
3		Dr.K.R.Senthil kumar,	MODROBS of Thermal Lab	1200000	AICTE
1	2014	Dr.Binu Sukumar	Challenges and Opportunities in Solar Photo Voltaics	200000	AICTE
2		Dr.K.L.Shunmuganathan	Hospital Management System	1,20,000	Scartnet Tech Solutions

3		Dr.R.Jagadeesh Kannan	Image clustering technique for web search engine retrieval system	2,13,000	Vee Eee Technologies
4		Dr.R.Jagadeesh Kannan and Dr.T.Sethukarasi	Building a rule based classifier for mining temporal medical data base	60,000	Vee Eee Technologies
5		Dr.R.Jagadeesh Kannan & Ms.Thilagavathy	Cost Effective and secured detection of cloned attacks in wireless sensor networks	1,28,000	Startech Office Automation
6		Dr.R.Jagadeesh Kannan & Ms.Thilagavathy	Authentication based on facial regionalization	1, 78,000	Startech Office Automation
7		Dr. K.A. Mohamed Junaid	Modern Trends in EMI and EMC	32,500	AICTE
1	2013	Dr.K.L. Shunmuganathan	SDP Multi Agent System for Domains	7,00,000	AICTE
2		Dr.Jayakumar C	SDP Programming Paradigms	250000	AICTE
3		Dr.R.Jagadeesh Kannan & Ramesh	Image Segmentation and Classification based on non-causal multidimensional	165000	Macrodata Management Systems
4		Dr. P. Usha Rani	FDP on Power System Analysis.	70,000	Anna University
5		Dr. S.V. Nagarajan	Image Compressing Huffman, Jpeg 2000and LZW	240000	SETS
6		Prof.S.Vimala		178000	Creative Inc
7			Wireless Keyboard	100000	IEDC
8		Dr.K.A.Mohamed Junaid	Automation Systems for determination of defects in rails by Image Processing	100000	IEDC
9		Dr. R. Sivakumar	Design and implementation cognitive Radio Test Bed	1500000	AICTE
10		Dr. T.Lakshmanan	Solar Aided Portable Refrigeration System	100000	IEDC
11		Dr. K. Vijaya	Reconfiguration of Optical	547000	AICTE

			Networks for Dynamic Traffic		
12		Dr.Geetha Ramadas	Study of the Power Quality in Wind Turbine	1500000	MNRE
1	2012	Dr. C. Chellamuthu	study of Power Quality Issues In Grid Connected Wind Farms and Identification of Remedial Measures	800000	CWET
2		Dr. R. Sivakumar	Design and Implementation of cognitive radio test bed	1500000	DST
3		Dr. T.N. Srikantha Dath & Mr. Mudhukrishnan	Design Development of affordable bed of preventing the decubitus ulcer for immobile patients and elderly persons	740000	DST-SEED
4		Mr. R. Parvatham	Design and Analysis of main rotor blade of a trainer helicopter	50000	AESI
5		Dr. K. Manivannan	Establish Innovation Entrepreneurship Development Centre	970000	VSTEDB – DST, GOI.
			<ul style="list-style-type: none"> • 5 Projects from CSE, ECE, EEE and EIE departments were selected by IEDC and awarded 1 Lakh each for this year. • Three Projects from CSE, IT were shortlisted by PDMA contest • ARC Linkage Project of University of Southern Queensland, Australia sanctioned an amount of Rs.3.5 Lakhs, for “Remote Patient Assessment using Digital Stethoscope for the health systems in Australia”. 		
6		University of Southern Queensland sanctioned an amount of Rs.23.82 lakh for “Pharmaceutical and Patient care Research in Metabolic Syndrome			

(Refer to 3.3.6 for the instruments / facilities created from the special grants received from industries.)

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/other research laboratories?

To carry out research activities in an effective and efficient manner, research facilities are made available to our students and research scholars outside the campus/other research laboratories in the form of Industrial Visits, Innovation contests, Conferences both National and International levels, Workshops and Faculty development programmes, MoU etc.,

3.3.5 Provide details on the library/information resource center or any other facilities available specifically for the researchers?

- The library and information centre has separate reading and reference section to service the Undergraduate and Post graduate students, staff members and research scholars.
- The central library is covered with huge collection of 89353 volumes in 23917 titles, covering all major fields of science, engineering and technology with international standard resources.

The library has subscribed for the e - journals packages like IEEE, ASME, ASCE, Springer, Elsevier, J- Gate (Engineering and Technology) J-Gate (Management Sciences), EBSCO, McGraw Hill ASTM Digital Library in addition to high speed internet facilities, it also has printed copies of International / National Journals and technical magazines. The library has an Institutional Membership with several external libraries such as, British Council Library, DELNET, and Anna University Library.

3.3.6 What are the collaborative research facilities developed/created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

The following research facilities were developed by the collaborative research institute in our institution

- Information Security lab
- Telecom Lab
- Automotive Electronics lab
- Embedded System Laboratory
- Big Data Laboratory
- Factory Automation
- IoS Laboratory

3.4 Research Publications and Awards

3.4 .1. Highlight the major research achievements of the staff and students in terms of Patents obtained and filed (process and product), Original research contributing to product improvement, Research studies or surveys benefiting the community or improving the services and Research inputs contributing to new initiatives and social developments

Table 3.4.1 gives the patents filed, services to community and new initiatives for social developments:

Applicant Name	Inventor Name	Title	Status
1.RMK Engineering College 2. Surith Nivas Mohan Doss	Surith Nivas Mohan Doss, Sai Prasad Sridaran, Raam Kumar Hari Krishna, Dr. Geetha Ramadas.	Photovoltaic Driven High-Precision Temperature Controllable Peltier Domestic Cooler/Warmer	Awaiting Examination (APPLIED PATENT FILED NO: 3165/CHE/2014 /Dt.30.06.2014,
1. RMK Engineering College 2. E. Kaleeswaran	E. Kaleeswaran, S. Manivannan, Kommoju Sai Teja Kashyap, Dr. Geetha Ramadas A.Alhamdhu Nisha	Extending The Shelf Life of The Food By Microbial Inactivation Using Continuous And Flash Process Based Onohmic Heating Technique	Awaiting Examination
1. RMK Engineering College 2. P. Karthick	P. Karthick N.M. Jothi Swaroopan	Low Cost Crop Monitoring And Data Logging Using Cloud	Not Yet Published
1. RMK Engineering College 2. S. Siva kumar	S. Siva Kumar, N.M. Jothi Swaroopan.	Life Saving Gadgets	Not Yet Published Patent filed No : CBR No:18587/ 210641026216 Dated
1. RMK Engineering College 2.G.Deepak	G.Deepak, V.Sivakumar.	Novel Invention To Maintain Tire At Constant Pressure Using Heated Atmospheric Air	Not Yet Published
1. RMK Engineering College 2.Tadimetiniharik a3.A.Vijaya Preethi	Dr.K.A.Mohamed Junaid, M. Britto Sumitha, Tadimeti Niharika, A. Vijaya Preethi, M .Deepa	Efficacious Cooling System Centered Upon Establishing Humidity Control By Encompassing Desiccant Into Coolers Impending Reduced Cost And Enhanced Efficiency	Not Yet Published (APPLIED PATENT FILED NO: 1516/CHE/2015 /Dt.25.03.2015)

1.RMK Engineering College 2. Dr.K.A. Mohamed Junaid 3.V.Tamil Selvi	Dr.K.A. Mohamed Junaid V.Tamil Selvi	Enhanced Wireless Alphabetic Keyboard For The Visually Challenged	Not Yet Published
1. RMK Engineering College 2.AValli 3.N.DJayashree	Dr.K.A. Mohamed Junaid 2.K.R Chairma Lakshmi A.Valli N.DJayashree	Efficient Solar Photovoltaic Power Generation Using Robust Wet Wipes System With Concentrator	Not Yet Published
1. RMK Engineering College 2.AshwinSureshBabu 3.Krishna Pokkuluri	K.L.Shunmuganathan Ashwin Suresh Babu Krishna Pokkuluri	A Modern, Realistic And Futuristic Approach Towards Inventing, Maintaining And Experiencing An Artificially Intelligent Virtual Television Mate Powered By Highly Enriched Graphical User Interface Module And User Interaction System Using The Image And Natural User Language Processing	Not Yet Published
1. RMK Engineering College 2. S. Siva Kumar	S. Siva Kumar N.M. Jothi Swaroopan Dr.Geetha Ramadas Dr. T. Magesh	High And Low Power Production Automatically In House And As Gadget Using Spring Tension Mechanism Wi	Not Yet Published
1. RMK Engineering College 2.T. Lakshmanan	T. Lakshmanan	Induction Heating Assisted Low Cost Bio-Diesel Production Plan	Not Yet Published
1. RMK Engineering College 2. N. Kiran kumar 3. Kesarapu Sandeep Reddy 4. S. Syed Akmal (2013-2014)	N. Kiran kumar Kesarapu Sandeep Reddy S. Syed Akmal	Induction Heating Assisted Low Cost Bio-Diesel Production Plant	(APPLIED PATENT FILED NO: 11/CHE/2014 /Dt.02.01.2014)
1. RMK Engineering College 2.Dr.T.V.Padmavathy	Dr.T.V.Padmavathy	Extension of Network Lifetime for surveillance Wireless Sensor Networks using Energy Efficient	Awaiting Examination

1. RMK Engineering College 2. P. Sreekrishna 3.E. Vaidhya Nathan 4.G.S.Shantha Kumar	P. Sreekrishna E. Vaidhya Nathan G. S. Shantha Kumar	Wireless Keyboard for Visually Impaired	(APPLIED PATENT FILED NO: 2345/CHE/2015 /Dt.08.05.2015)
1. RMK Engineering College 2. E. Kaleeswaran, 3. S. Manivannan (2013-2014)	E. Kaleeswaran, S. Manivannan	Effect of PWM Technique for Microbial Inactivation Under Pulsed Electric Field (PEF) Liquied Food Preservation	Awaiting Examination (APPLIED PATENT FILED NO: 814/CHE/2015 /Dt.10.08.2015,
1. RMK Engineering College 2. N.Suresh 2015-2016	N.Suresh	Smart Tyre Pressure Handler	Patent Application No: 201641013417 Year 2016

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database

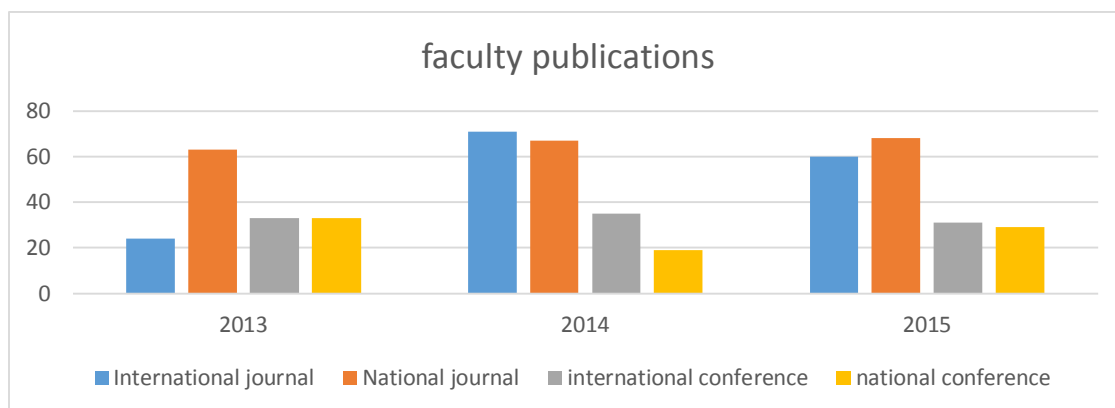
Yes.

The institute publishes an International Journal on “RSM *International Journal on Engineering, Technology & Management*” (ISSN 0974 9535).

Refer to: <http://www.rmkec.ac.in/journal/index.html>

3.4.3 Give details of publications by the faculty and students:

Our institution encourages the faculty members and students to publish research papers in reputed national and international journals.



3.4.4 Provide details (if any) of research awards received by the faculty, recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally

Our institution provides incentives to faculty members for every international publication and a percentage oriented incentive for every research funds received. Our faculty members have received many honors and recognitions from professional bodies and various agencies.

Academic year 2016

- Dr. Binu Sukumar, Professor and Head, Department of Civil Engineering has been appointed as the member of Editorial Board/Reviewer's Team for International Journal of Advances in Engineering Research & International Journal of Research in Science and Technology from July 2015.
- Dr. K.L. Shunmuganathan, Prof. and Head, Department of CSE, is awarded ISTE National Award for Innovative Research Work for the year 2015.
- Prof. M. Somasundaram, Department of CSE, participated in the 3rd World Summit on Accreditation (WOSA) 2016 conducted by National Board of Accreditation (NBA) on March 19, 2016 in New Delhi and presented the paper he co-authored with Dr. Elwin Chandra Monie, Principal titled “Integrating Outcome Based Accreditation(OBA) with ISO 9001 compliant Quality Management System (QMS) A Case study”
- Dr. K.A. Mohamed Junaid, Professor and Head, Department of EIE received Mitsubishi Electric India Private Limited award “Partners in Excellence” at Automotive Forum held in Chennai on 9th October, 2015.
- Dr. K. Vijaya, Professor and Head, Department of Information Technology, received Global Teacher Role Model Award 2015, on World Teacher's Day the 5th October 2015 at Global Teachers Conference organised in Mumbai by MVLA trust. Award was given in Recognition of Meritorious Services, Outstanding Performance and Remarkable role as a Teacher for Building Sustainable Global Society.
- Mr. G. Mahendran – Associate Professor, Department of Mechanical Engineering attended and presented paper in “ASME International Mechanical Engineering Congress Expositions” (ASME IMECE -2015) at Houston, Texas and the paper has been published in ASME digital collections in the field of Design Engineering.
- Dr. K.K. Sivagnana Prabhu – Head – Training and Corporate Affairs received the Career Guru “Performing Minds Award” at National Employability conclave, Chennai.

Academic year 2015

- Dr. Y. Sukhi, Professor, Department of EEE has awarded IE(India) Best Faculty Advisor Award from Institution of Engineers during the year 2014-15.
- Dr. N.M. Jothi Swaroopan, Department of EEE has awarded IET Extra Mile Award 2015 by IET(UK), Chennai Local Network.
- Dr. R. Sivakumar, Professor and Head, Department of ECE delivered Keynote Speech in International Conferences held at Malaysia and Hongkong.
- Dr. S.Ramasamy, Professor, Department of ECE awarded mentor of the winning team in the National ARM Design Contest.
- Dr. V. Tamil Selvi, Professor –EIE- certified LabVIEW Associate Developer(CLAD), handled LabVIEW core 1 and core 2 training for R.M.K Group of Institution

Academic Year 2014

- Dr.C.Chudalaimuthu Pillai, Emeritus Professor in Mathematics was presented with ‘Life Time Achievement Award’ by ISTE, Tamil nadu and Pondicherry Section.
- Dr. R. Jagadeesh Kannan, Professor, Computer Science and Engineering, received Paper Presenter Award at International Conference, instituted by Computer Society of India (CSI), presented in 48th Annual National Convention of Computer Society of India organized by CSI-Visakhapatnam Chapter, in association with Visakhapatnam Steel Plant Rastriya Ispat Nigam Limited, Visakhapatnam, December 13 – 15, 2013.

Academic Year 2013

- Ms. R. Precila Mary, Asst. Professor, Computer Science and Engineering received Infosys Campus Connect Bronze Partnership Award, instituted by Infosys.
- Ms. K.Ramya, Asst.Professor and Ms.Perarasi M, Asst.Professor Department of EEE received Er. D A Rajan Promotional Award from Institute of Engineer’s Technology.
- Dr.R.Sivakumar Professor Department of ECE delivered keynote speech in International Conferences held in Sri Lanka, Kanyakumari and Maldivies.
- Dr.S.Ramasamy, Professor Department of ECE has been authorized by ARM University Program as resource person to conduct faculty and Student workshops with ARM Microcontrollers.
- Ms.V.TamilSelvi, Assoc.Professor Department of EIE, a Certified LabVIEW Associate Developer (CLAD), handled LabVIEW Core 1 and 2 training for RMK Group of Institutions.
- Ms.V.TamilSelvi, Assoc.Professor Department of EIE, guided the project which has won an award by ISTE and TCS Best Student project award.

- Ms. S. Meenakshi, Assoc.Professor, Department of MCA has won the Bronze Level partnership certificate from Infosys – Campus Connect Programme

Academic year 2012

- Dr.Binu Sukumar HoD-CE has been appointed as consultant for Tamil Nadu Housing Board for checking stability of Structures.
- Dr.K.Gajendra Babu, Professor of Mechanical Engineering was felicitated with the “Automotive Education Award” by SAE foundation at IIT Delhi on 08th January 2013.
- Dr.R.Jagadeesh Kannan received an “Paper Presenter Award” at International Conference given by Computer Society of India held at Kolkatta on 01st and 2nd December 2012.

3.5 Consultancy

3.5.1 Give details on the systems and strategies for establishing institute-industry interface?

Our college maintains symbiotic relationship between the institution and industries. Meetings with the industry personnel result in signing of MoUs and accreditation by the industries and training and consultancy services. Faculty members also establish industry institute relationship during industrial visits and internship training programmes.

Table 3.5.1 gives the details on institute-industries training programme:

S.No	Who initiates	Nature of interaction	When it is initiated
1	Training and Placement Cell	Value Added Programs by Industry experts	Throughout the year
2	Heads of the Departments	Industrial Visits, Guest lectures and Industrial training by industry experts	During the beginning of the semester
		Sabbatical training for teachers	During vacation period
3	Departments in consultation with management	Consultancy activities	Throughout the year
4	Students (in consultation with HODs and Training and	Inplant Training and Internship	During vacation

3.5.2 What is the stated policy of the institute to promote consultancy? How is the available expertise advocated and publicized?

The Stated policy of the institution regarding the promotion of consultancy gives space for the following:

- Based on the available faculty expertise, relevant industries are identified in consultation with the HOD's, Professors and Management and visits and discussions are initiated.
- Problems in design, manufacturing or testing faced by the industries and further improvements envisaged by them are taken up as consultancy work.
- The Training and Placement Cell also enables faculty to develop contact with industries and promote consultancy activities.
- College Development Council and Governing Council have eminent industrialists who also give appropriate suggestions for matching the faculty expertise and needs of industries.
- Accreditation of the college by the industries and signing of MoUs also promote consultancy activities.
- The expertise of the eminent faculty is also made known through the college website, college prospectus and brochures and through personal contacts of the experts.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

- Enables the capable faculty to interact with the industries.
- Encourages the faculty to use the Lab, Library and Internet facilities for facilitating the consultancy services
- Provides On Duty and financial supports to boost up consultancy services keeps the dialogue going on the needs of the industry in terms of improving their products and processes.
- Brings out brochures showing the consultancy work carried out and circulates them to various industries to bring an awareness of the expertise and facilities available in the institution.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years

The institution's forte has been maintaining successful partnership with the industries.

Table 3.5.2 gives details of consultancy services provided:

Dept	Agency to which consultancy provided	Title of the Project	Amount In Lakhs	Status
Civil	Trans Tech Turnkey Pvt.Ltd	Material testing and Testing of Strength of concrete	0.50	Completed
	Tamil Nadu Generation and Distribution Corporation Ltd		0.51	Completed
	Gayathri Brick 'N' Blocks Pvt. Ltd		0.25	Completed
	Bharat Petroleum Corporation Ltd		0.52	Completed
	RR Thulasi Builders		0.02	Completed
	Gannon Dunkerley and Co.Ltd		0.75	Completed
CSE	Microdata Management Systems	A Machine Learning Approach for Health care system and Knowledge seekers	1.00	Ongoing
	Global Techno Solutions	Big Data	1.25	Ongoing
	Perpetro Technologies Pvt Ltd	Multi Core Architecture	1.20	Ongoing
	Global Techno Solutions	Multi Agent System	1.50	Ongoing
ECE	ENIX Technology India Pvt.Ltd	Advanced ATM Security using Touchalytics	0.10	Completed
	VI Micro systems Chennai	Analysis on Telephony Signaling Systems	0.10	Completed
	VI Micro systems Chennai	A Smart Portable DC Charger	0.10	Completed
	Spectrum Controlled Pvt Ltd	Automatic Rail Inspection	0.15	Completed
	ELMACK Engineering Services	Car Accident Avoider Using Brain Wave Sensor	0.10	Completed
	VI Micro Systems, Chennai	Wireless Based Mining Safety Using Zigbee	0.10	Completed

EEE	Kantha Flex India Pvt Ltd	Design of DC Drive using Resonant Converter	0.50	Completed
	G.V. Industrial Heaters	Study of Electrical Performance of fixed position Electrical Heaters	0.75	Completed
EIE	Woodenfab, Thiruvallur	Automation of controlling Temperature of Oil in 400 T Hydraulic Press	0.50	Completed
	Trend Instrumentation and Automation Pvt.Ltd Chennai	Interlocks in Compressors using PLC	0.65	Completed
	IGreen Technologies, Kovilpatti	Efficient Solar photovoltaic power generation using robust wet wiper system	0.70	Completed
	IIT, Madras	Lithium ion-state of health tester	0.5	Ongoing
	Mitsubishi Electric India Pvt. Limited	Automated variable sized bottle filling process using PLC	1.0	Ongoing
IT	Aachi Masala Foods Pvt. Ltd	Inventory Management	0.50	Ongoing
	Vikash Fashion Clothing Pvt.Ltd	Payroll Processing System	0.20	Ongoing
	RAM Info Tech	Web Page Development	0.20	Ongoing
ME	Hipcon Values Pvt Ltd	Damage detection in Lamination Composite plates and cylindrical shells	0.24	Completed
	S.R.K Industries	Estimation of Co-Efficient of Friction for Al2223	0.17	Completed
	R.V.C.N.C	Design and Fabrication of Glass Fiber Reinforced Polystyrene Laminates	0.21	Completed

	Vedha Industries	Reduction of cycle time manufacturing process	0.10	Completed
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3.5.5 What is the policy of the institute in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

The amount, to be given to faculty as a part, depends upon the nature of the project, cost and expenses incurred during the period of consultancy services. Generally the revenue generated is allocated to faculty with 10% and the rest of the 90% is used for the development of the departmental further research activities.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

Our Institution is well known for its Corporate Social Responsibility in serving the society. It establishes contact with the neighbourhood communities and interacts with them to explore the opportunities for social work interventions. The students get opportunity to participate in various activities organized by our college under the umbrella of National Service Scheme, Youth Red Cross and Interact Club. This makes our students to develop interpersonal relationship, social responsibility and service orientation.

Table 3.6.1 gives the contributions of our institution:

S.No.	Details about the activity
1	NSS unit organizes Blood Donation Camp every year along with Rotary Club of Gummidipoondi. Our students and staff donated blood to L.L.M.R.F Public Charitable Blood bank
2	Organizes Polio Eradication Programme every year to make India polio free country
3	Our students formed Human Chains and distributed pamphlets for making awareness on Road safety
4	NSS unit organized Medical camp for our college drivers

3.6.2 What is the Institutional mechanism to track students involvement in various social movements/activities which promote citizenship roles?

- Our institution encourages the students to donate blood, volunteer for various awareness programme, participate in sports, quiz competitions, debate and discussions, cultural competitions, etc.
- The students are encouraged with cash prizes and gift coupons for their involvement in social activities. Participation/merit certificates are given to the students.
- These activities inculcate the social responsibility and make them confident citizens.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The Management considers all the stakeholders (students, parents, Alumni, industry and society) perception for the development of the institution.

Table 3.6.2 gives methods adopted to get the perception of various stakeholders.

Students	Faculty	Alumni	Industry	Parents
*Class committee meeting (Twice in a semester) *Online feedback at the end of the semester covering teaching-learning process, library, curriculum, faculty, facility and institution. *Proper counseling is given to the students by counselors	*Interaction of the faculty with Management, Principal to discuss department requirements if any other academic related issues and welfare of the faculty members. *Faculty meeting with HoD *HoDs meeting with Principal	*Student exit-survey *Alumni survey during alumni meet and alumni visit to college	*Academic Advisory Council Meeting (Once in a year) *Employer feedback *Suggestions from Industrial Experts visiting the departments for guest Lectures.	*Parents meeting with Subject Handling Staff members. *Progress of the ward is Periodically informed by counselors

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

Our institution allocates funds in every year budget to organize extension and outreach programmes. The camps are planned and executed to the needy people through the concerned government officials and elected local body representatives.

Table 3.6.2 gives the details of outreach programmes organized

S.No.	Details about the activity
1	Food was supplied in the campus to the nearby village peoples during natural disasters
2	Water was supplied to the nearby village people during power cut due to natural disaster for more than 10 days
3	During summer season, water lorries distribute water to the needy people in the nearby villages every year
4	Donated Rs.25 Lakhs towards the Chief Minister's Relief Fund for Thane cyclone
5	Contributed Rs.2,00,000/- for PTA Teachers Salary for Govt.Hr.Sec.School, Kavaraipettai
6	Donated Rs.20 lakhs to construct a New-block at Govt. Hr.Sec.School, Thiruvallur
7	Donated 60 Personal Computers to Gengu Swamy Naidu School, Ponneri, Govt.HSS, Kavaraipettai, Govt. Boys HSS, Gummidipoondi, Govt. Girls HSS, Gummidipoondi
8	Paid Rs. 2,00,000/- to upgrade KLK Girls High School, Gummidipoondi to Higher Secondary School
9	Contributed Rs.83,000/-for Polio-Plus programme

These Outreach Programmes develop interpersonal relationship, leadership quality, organizing skill, understanding the life of underprivileged people, helping tendency, help the society in times of need, imbibe the culture of 'Hard work and Discipline' and inculcate the moral and human values among our students.

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

NSS cell was started in our campus with the approval of Government of India, Ministry of Youth Affairs and Sports on 22-01-2015. The cell was inaugurated by Mrs. Sarah Karunakaran, Professor, Madras School of Social Work on 19th March 2015. In addition to the volunteers, the students are also encouraged to participate in the NSS and YRC activities

NSS Activities

- Blood Donation Camp is organized every year in our college campus
- organized Medical camp for drivers

YRC activities

- Blood donation camp
- Tree plantation

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

The primary focus of our college is the upliftment of the underprivileged and marginalized sections of the society.

- Our students and staff helped the Tiruvallur District administration to update the data of flood affected people to transfer the relief fund directly to the savings bank account of the beneficiaries.

Our students developed projects which are useful for underprivileged and marginalized sections of the society.

- Wireless Keyboard for Visually Impaired
- Solar Irrigation Pump Using Sterling Cycle
- Effect of PWM Technique for Microbial Inactivation Under Pulsed Electric Field (PEF) Liquid Food Preservation

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

The Extension activities help the students to

- inculcate the culture of leadership quality, team work, brotherhood,
- instil the professional ethics, human values and self-confidence
- develop their counselling, interpersonal and managerial skills.
- Awareness on "Entrepreneurship" is also created by IEDC and E-Cell.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

- Our students and staff along with elected local body members opened saving bank account for Thiruvallur district people to credit the flood relief fund directly to their account.

- Our students with the local residence participated actively in the Electors Awareness Programme conducted by the District Administration, Tiruvallur.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- The Kani Tamil Peravai was started on 10th March 2016 in our college in coordination with Tamil Virtual Academy. Dr. Tamil Parithi, Deputy Director of Tamil Virtual Academy was the Chief Guest for the function. The Programme was very successful in creating awareness for developing mobile apps in Tamil and Academy articles in Tamil Wikipedia.
- The LPG subsidy opt-out Awareness Programme was successfully conducted in the college campus on 04-07-2015. Mr. P.K. Raghunathan, Regional LPG Manager and Mr. G.P. Kamala, Territory Manager, Bharat Gas were the chief guest of the function.

3.6.10 Give details of awards received by the institution for extension activities and/ contributions to the social/ community development during the last four years.

- “Indian Red Cross Society” gave ‘Certificate of Appreciation’ for the best performance in Youth Red Cross Movement in the year 2014
- Indian Association for the Blind has acknowledged us as IAB Blind Empowerment Champion - 2014 in recognition of voluntary contribution for the empowerment of visual challenges - Silver Zone.
- “The Best Institutional food Service Facility Management Award” to RMK Group of Institutions by Food Safety and Drug Administration Department, Ministry of Health and Family Welfare, Government of Tamilnadu.
- Lokesh Babu T G, I Year Mechanical Engineering student received the most prestigious Rashtrapati Award from our Honorable President Pranab Mukerhjee on 16th February 2015 at Durbar Hall, Rashtrapati Bhavan, New Delhi for his participation in the Southern Railway State Bharat Scouts & Guides.

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Our Institution collaborates with industries through CoEs, MoUs. Trained Faculty members by the industry experts train and motivate the students to become industry ready. Industry equipments and facilities are shared with our institution. The students have undergone in-plant training, internship and also got placement offer through this collaboration.

Table 3.7.1 gives the Centres of Excellence:

S.No.	CoE	Dept	Facilities and equipment
1	CoE in Geospatial Solutions	CE	Remote Sensing, GIS, GPS and other Internet mapping technologies
2	CoE in Big Data	CSE	Hadoop, Hadoop Hive, Pig Programming
3	CoE in Digital Enterprise and Mobility	CSE	Web technologies like HTML, CSS, and JavaScript, IOS App development
4.	CoE in Information Security	CSE	Risk Management / RiskControl, Security Risk Management, Security Testing and Auditing, and IT Security & Infrastructure.
5.	CoE in Telecom	ECE	Synchronous digital hierarchy (SDH), GSM, CDMA, Wireless Local Loop (WLL), NFV, MPLS, New Technology Switching Systems(NTSS), Next Generation Network(NGN)
6.	CoE in ARM Technology	ECE	Advisory committee consisting of experts from Industry such as ARM University Program, HCL Technologies, WIPRO Technologies, ATMEL, Freescale University Program, NXP Semiconductors, and Embien
7.	CoE in Internet of Things (IoT)	ECE	Thingworx cloud Platform Technology
8.	CoE in Mixed Signal Design	ECE	Advisory committee consisting of experts from Industry such as TIUP, Silicon Image, STARCOM, Cranes UP and ATMEL
9.	CoE in Embedded Systems	EEE	In collaboration with Wipro Technologies.
10.	CoE in Integrated Building Management System	EIE	In collaboration with Johnson controls Pvt Ltd.

11.	CoE in Factory Automation	EIE	Sponsored by Mitsubishi Electric India Private Limited
12.	CoE in Front End Technologies	IT	Sponsored by Virtusa Polaris
13.	CoE in ZOHO Enrich Program	IT	Sponsored by Zoho
14.	CoE in Product Lifecycle Management	ME	In collaboration with Wipro Technologies.

Table 3.7.2 gives the Equipments Purchased/ Sponsored under CoE

Name of the CoE	Equipments Purchased/ Sponsored
Information Security lab	Tools Installed and Sponsored by TCS
TELECOM	Systems with Telecom Software
Automotive Electronics lab	KPIT and R M K Engineering College
Embedded System Laboratory	Wipro Technologies Ltd.
Big Data Laboratory	Big Data Software Tools Sponsored by iNautix
Factory Automation	Q PLC Training Setup, FX PLC Training Setup, IQ Platform Programming Software, iQR Training Set up, iQ Works Programming Software(Model: SW1DNDIND-IQWK-E)
IoS Laboratory	30 MAC Machines and 4 iPads Sponsored by CTS

3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/ other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

The academic partnerships fostered with Institutions/Industries enable the institute to strive towards the collaborative research work. The academic culture of the institution fosters partnerships and cooperation to improve quality and accelerate progress. Academic partnership in the institution is beneficial to the faculty members in developing new teaching tools, and help students to increase the extent of their knowledge. Collaborative endeavors and off campus visits help to learn different approaches of solving a problem.

List of companies the institution has MoUs

- Johnson Control India Ltd.
- Mitsubishi Electric India Private Limited

- Hitachi Solutions India Pvt. Ltd.
- Tata Consultancy Services Ltd
- Ericsson India Pvt. Ltd
- NI Systems (INDIA) Pvt Ltd., Bangalore. Lab VIEW Academy
- IBM - Centre of Excellence
- Infosys Technologies Ltd
- Wipro Technologies Ltd
- HCL Technologies Ltd
- Cognizant Technology Solutions
- Soliton Technologies Private Limited
- FLSmith Pvt. Ltd
- EMC² EMC Academic Alliance (EAA) program
- Poseidon Solar Services Private Limited
- NexgTech Research Labs
- Cisco Systems (INDIA) Pvt Ltd
- Keane India Ltd
- VI Microsystems

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.

The following are some of the initiatives resulted in industry-institution interaction.

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTER (IEDC):

Our Institution has been accorded to establish Innovation Entrepreneurship Development Centre (IEDC) by the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology, and Government of India in the academic year 2011-2012 for 5 years duration.

RMK Entrepreneurship Cell (E-Cell):

It is an initiative of RMK Alumni. Students, who are likely to start their own Company/Business, join the RMK E-Cell. Students will get 360-degree knowledge about how to start and run a company.

Er.P.K.Hari, the founder of this E-Cell has been instrumental in organizing various events for the budding RMK entrepreneurs. RMK E-Cell Logo was launched during the 17th Alumni meet on 19th November 2012. Two of our students were selected as the campus ambassadors of the IIT Kanpur, E-Cell for 2 successive academic years.

Refer to section 3.1.6 for CoE Laboratories established.

Table 3.7.3 gives the Higher Education MoUs with their activities:

Sl.No	Name of the Organization	Activities
1.	Missouri State University, USA	Promoting institutional collaboration by staff Joint teaching and research projects Fostering internalization through student and faculty mobility, Guest Lectures
2.	AKAD University of Applied Science, Stuttgart, Germany	Collaboration in research and development. Collaboration in industrial training. Collaboration in undergraduate and post-graduate programmes. The exchange of staff Exchange of academic materials
3.	North Carolina A&T State University, USA	Exchange of Faculty and Students Research Projects The students and faculty exchanges and collaboration
4.	University of Technology, Sydney	Exchange of students Interchange of staff Exchange of information Joint research & Joint course development Exchange of information and library & research materials, Joint course development and delivery
5.	British Council, UK	BEC exam Resource persons trained by the British Council
6.	The Institute of sound and Vibration Research, University of Southampton, England.	Education, Training and research automotive refinement focus on noise and vibration Community noise Industrial noise pollution and hearing conservation
7	Gateforum	Conduct of awareness seminars Conduct of on-campus GATE training Conduct of Mock-GATE exams

8	The Princeton Review, Manya Group	Conduct of awareness seminars Conduct of on-campus GRE/ TOEFL / IELTS training
9	Cambridge English Language Assessment , Part of the University of Cambridge	Organize joint workshops / seminar for teachers Provide R.M.K engineering college with appropriate guidance on any issue relating to teaching English for its students and teachers Offer guidance to RMK engineering college for improving its post graduate and research programmes in English, in the areas of designing curriculum and offering specific language course

3.7.4 High lighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

Refer to section 3.1.8

3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated -

- **Curriculum development / enrichment:** Our students have got admission for higher studies in the institution having MoU's signed with Abroad Universities. Refer to section 2.6.4.1 for the details of higher education students.
- **Internship/ On-the-job training:** Our students have got internship in the companies having CoE's. On-the-job training is given to the students who got placed in the final year. Refer to section 2.6.4.2 for the details of internship students.
- **Summer placement:** Our students are going for in-plant training in companies which have signed MoU's.
- **Faculty exchange and professional development:** Faculty members are trained by Industries having CoE's and in turn the faculty members train the students and make them job ready. Faculties from different institutions with which we have collaborative understanding visit our campus and interact with our students. Our faculty members are also invited to these institutions for seminar presentations and invited talks. Industries that are pioneer in Software technology are conducting various Faculty Development Programme(FDP) for our Faculty. This will enhance the latest knowledge updation of

the faculty and in turn will equip the students in facing the current trends and challenges in technology.

- **Research:** Research projects are carried out with the help of IEDC. Many funded projects are received from various funding agencies in carrying out the Research. Based on the outcome of the project, many papers had been published in reputed journal. Refer the section 2.6.4.3 for the list of projects carried out under IEDC.
- **Consultancy:** Consultancy works have been done with the companies having MoU's and CoE's. Ninety Eight consultancy projects have been taken up by faculty members under the research and Development cell for the past three years. Refer the section 3.5.4 for the list of consultancy project.
- **Extension:** Social work is done under NSS Unit and Interact Club. Refer the section 3.6.1 for the contribution of NSS unit.
- **Publication:** Papers are published with co-authors from the industry.
- **Student Placement:** Our students are recruited in various companies which have established CoE with our institution every year. Various industries have signed MoU to recruit our students due to the skills, that our students exhibit. Refer the section 2.6.7 for the placement record of our institution.

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations. Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

Our Management identifies potential industrial partners, obtains their prior appointment, meets and develops long-term relationship with them. For example, they are invited for guest lectures, publication of joint-journal papers, industrial training to faculty, internship and projects for students and so on. Our institution signs MoU with industries mainly to establish the linkage / collaboration related to academic and research activities. Industry Powered Laboratories have also been established with the support of industries. Academic Advisory Council meet provides an opportunity for industry experts to help in improving the academic curriculum. Industry provides projects and internship to the students to inculcate the industrial culture among students. Refer to section 3.7.2 and 3.7.3 for the MoU's signed.

- AICTE-CII Survey of Best Industry Linked Technical Institute-2016 - Platinum category R.M.K Engineering College has been awarded the prestigious 'PLATINUM' category certification for the four disciplines in the AICTE-CII Survey of Best Industry Linked Technical Institutes – 2016

- Our institution is rated AAA+ among top 500 Engineering Colleges in India in 2016 BY CAREERS 360.
- Our institution is ranked 27th in the top 100 private Engineering colleges in India and 6th rank in Tamilnadu by higher education review.
- Our institution is ranked 57th in the top 99 private Engineering Colleges in India and 7TH in Tamilnadu by THE WEEK Survey.
- DATA QUEST has awarded RMK for its "Excellence in recruiter perception among private technical schools in South India". This magazine has also ranked RMK on All India Basis at 52nd rank and placed it at 14th rank in Tamilnadu.
- The OUTLOOK has ranked RMK 82nd among the top 100 engineering college in India including all IITs and NITs. RMK is in the 9th rank in Tamilnadu.
- "NATIONAL EMPLOYABILITY AWARD 2016" has been awarded to RMK engineering college for being among the top 10% colleges in Tamilnadu that excelled in AMCAT.
- RMK group of engineering colleges are awarded for being the "HIGHEST NUMBER OF BEC EXAMINATION TAKERS IN INDIA" by the British council, Chennai.
- "National Institutional Ranking Framework(NIRF), Ministry of Human Resource Development, Government of India has ranked RMK engineering college 84th position among engineering colleges including NITs and IITs.

CRITERION IV INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The infrastructural requirements for the subsequent year with respect to replacement, up-gradation and addition are assessed in the beginning of every academic year. Additional requirements in the following areas are identified:

- Class rooms
- Laboratories
- Workshops
- Computer Centre
- Library
- Consumable items for Laboratories and Departments
- Equipments
- Computer Systems
- Software Packages(Including open Source & Licenses)
- Books for the department and main library
- Faculty
- Technical Staff
- Seminar Hall
- Drawing Hall

A detailed budget is prepared by the lab in-charges and sent to the Principal in consultation with the HoDs. The list is finalized based on the essential needs of the department and it is submitted to management for final approval.

The management shows keen interest in the creation and enhancement of infrastructure in the Institution. This helps the smooth running of all the academic, co-curricular and extra-curricular activities and ensures effective teaching learning processes. Seminar halls, hostels for boys and girls, laboratories and other research facilities, well-maintained academic and administrative infrastructure, regular maintenance of existing buildings, water supply, inter and intranet connectivity are provided throughout. Necessary budget is also allocated to upgrade and create required infrastructure.

The institute has a team of engineers and supervisors to ensure proper maintenance and optimum utilization of the infrastructure facilities available in the Institute.

4.1.2 Detail the facilities available for Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, specialized facilities and equipment for teaching, learning and research etc.

The College is situated in an area of 31.19 acres (1, 27,030.94 Sq. m.)

The total built up area is 48,071.05 Sq.m.

- Instructional area – 15,887.05 Sq.m
- Administrative area – 3,436.470 Sq.m
- Amenities area – 12,098.98 Sq.m
- Circulation area – 16,648.55 Sq.m

Details of infrastructure facilities available for effective Teaching, Learning and Research:

Facility	Total Number	Total Area in sq.m
Class rooms	58	4514.54
Tutorial Class rooms	26	1339.26
Laboratories	79	5900.36
Research Labs	4	264
Seminar Halls	9	1300.2
Workshop shed (Labs)	5	1055.69
Drawing Hall	3	423

Teaching Aids	Total Numbers available
LCD projectors	40
OHPs	40
Computers	1264

Co-Curricular activities:

Seminars, workshops and technical contests are organized to strengthen the theoretical and practical knowledge of the students by each department. There are also student members in the professional societies which promote technical activities and student participation. Institution funds and facilitates are availed to conduct these activities for the benefit of the students.

Department	Professional societies
Civil	Indian Concrete Institute, ISTE, IEI
Computer Science, IT & MCA	Computer Society of India, ACM and IEEE ISTE, IEI
ECE	IEEE, IACSIT, ISTE, ACM, IEI
EEE	IET, IEEE, IEI, SAE
EIE	Instrument Society of India
Mechanical	Society for Automotive Engineers Indian Society of Heating, Refrigeration & Air Conditioning Engineers, The Institution of Engineers (India) Indian Institute of Industrial Engineers

Management Studies	Economic Times Club, Business Standard Club Madras Management Association
Institutional Membership	Indian Concrete Institute, ISTE, IEI, IET

The facilities like seminar halls, classrooms and other amenities required for co-curricular activities are made available by the respective faculty in-charge. The planning and conduct of the activities are also supervised by the faculty in-charge along with the student members.

Extra-curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

Exceptional sports facilities under the guidance of qualified physical directors are made available to the students. Courts/fields with a total of 30,351.45 sq.m are available for the following sports activities.

- Gymnasium
- Volleyball
- Carrom
- Cricket
- Badminton
- Basket Ball
- Tennikoit
- Football
- Table Tennis
- Throw ball & Athletics
- Tennis

Other activities
NSS <ul style="list-style-type: none"> • Blood Donation camps organized in auditorium • Helping Orphanages, other natural disorder – transport facilities given.
Tech Club Recent innovations and Technical Knowledge updated
Debating Club Communication skills development
Ethics Club Lectures on ethics
IDEC Entrepreneurship development cell
Literary club Enhance Listening, Speaking, Reading and Writing Skills

General Amenities:

- Vehicle parking shed with service/maintenance facilities.
- Parents waiting hall in the RJ Block ground floor.
- RO plant facilities to provide purified water across the campus.
- Hostels for boys and girls.
- Facilities for Yoga and Gymnasium.
- Automated Laundry facilities for the inmates of the hostels.
- Exclusive dining hall for students with seating capacity of 1500(11 canteens).
- ATM facility to cater to the needs of students and faculty.

- Post box facility is provided inside the campus.
- Power generator with a capacity of 725KVA and 380 KVA to ensure 24X7power supply.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed, augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution campus and indicate the existing physical infrastructure and the future planned expansions if any).

All the facilities are optimally utilized as the institute mainly focuses on the infrastructure facilities.

In the last 4 years the following infrastructural facilities have been developed:

- RO Water Treatment Plant
- Sewage treatment plant near the bus stand
- Planting trees to make green campus
- Reconstruction of road inside the campus
- Spacious canteen has also been built and is functioning
- A fully functional health center with six beds for girls and four beds for boys is separately available in the PV block. A full time doctor and qualified nurse are employed.
- Each department is provided with additional Notice Boards.

The facilities developed/augmented during the last four years are as below:

Facility Augmented	2012-13		2013-14		2014-15		2015-16	
	Recurring	Non-Recurring	Recurring	Non-Recurring	Recurring	Non-Recurring	Recurring	Non-Recurring
Consumables, Maintenance and Services	1554030		1040400		987400		746000	
Equipments (Specify Details)		7882889		7411547		5672000		6448300
Computer Centre	996426	2271097	3808400	6466000	2529500	3407500	3686950	3126500
Main Library	1435476		350000	9619000	5860000	1712000	6615000	442000
Stationery	4919467		3200000		1805087		3500000	
Furniture	1509069		3199850		3199850		102800	
Total	10414468	10153986	11598650	23496547	14381837	10791500	14650750	10016800

Figure 4.1 –Master Plan of RMKEC



4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of the differently disabled students?

- Class rooms and other facilities in the ground floor.
- Ramps facility in all the blocks.
- Tar roads inside the campus.
- Facility to conduct the examinations in the suitable locations.
- Battery car and vehicle facilities.

4.1.5 Give details on the residential facility and the various provisions available within them:

Hostel Facility:

	Boys Hostel - I	Boys Hostel - II	Boys Hostel - III	Girls Hostel - I	Girls Hostel - II	Girls Hostel - III
No. of Rooms	96	8	126	60	45	149
No. of Students	258	198	464	282	100	380
No. of Staff	3	2	2	1	4	2
Laptop with Wi-fi	Yes	Yes	Yes	Yes	Yes	Yes
T.V Room	1	1	1	1	1	1
Tennis court	-	2	2	1	1	1
Badminton	-	-	1	-	1	-
Reading Room/Study	1	1	1	1	1	1
Common Bathroom	24	24	48	24	24	48
Gym	-	1	-	1	-	-

Recreational facilities, gymnasium, yoga center, etc.:

Yes, Indoor stadium is used for all these purposes

Indoor Stadium:

- Table Tennis
- Shuttle badminton
- Carom
- Tennikoit

- Yoga

Gymnasium:

- Treadmill
- Weight lifting set
- Dumbbell set
- Elipso



Computer facility including access to internet in hostel

- Internet facility is made available in computer center after the working hours from 3.00 pm to 6.00 pm.
- Wi-Fi facility is permitted for hostel students after 5.00 pm.

Facilities for medical emergencies:

- Health center is functioning with a qualified doctor and a supporting nursing staff.
- An ambulance is kept ready for transporting patients for emergency.

Security:

- 27 Trained Security Personnel including one Chief Security Officer are employed at the college main gate and other locations.

Housekeeping:

Housekeeping team has 2 supervisors and 136 members maintaining the campus neat and clean throughout the day.

Cleaner	54
Scavenger	59
Sweeper	23

Gardening:

- Garden is taken care of by a team of 34 gardeners and 2 supervisors.
- CCTV Cameras are installed near the main gate.
- Well laid passages for movement within the campus.
- The College has been awarded ‘Clean and Green Campus’ by the Rotary Club of Chennapatna.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

- Health center inside the college campus with a full time qualified doctor (Male and Female) and a supporting staff nurse.
- Separate observation rooms for boys (4 beds) and girls (6 beds).
- Ambulance facility is available.
- Every Department and Laboratory is provided with the first-aid kits.

4.1.7 Give details of the Common Facilities available on the campus—spaces for special units like IQAC, grievance redressal unit, Women’s cell, counseling and career guidance, placement unit, health centre, canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Details of the Common Facilities available in the campus are

Common Facilities	Availability
Grievance redressal unit	Yes
Women’s harassment prevention Cell	Yes
Counseling and career guidance	Yes
Training and Placement Cell	Yes
Health center	Yes
Canteens	Yes
Safe drinking water facility,	Yes
Auditorium	Yes
Generator/Power backup facility	Yes
Transport	Yes
IQAC	Yes and in progress

4.2 Library as a Learning Resource

4.2.1 Does the library has an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

Yes, Advisory Committee are formed for the College Library

Library Committee:

Dr. K.A. Mohamed Junaid	: Principal
Dr. S.Sambath, Professor / Mech	: Library Officer
Dr. M.Seenivasan Sr. Grade	: Librarian
Mr. A.Sudhaker	: Librarian
Mr. S Avinash	: Student (Final Year)
Miss. A.P. Niranjana	: Student (Third Year)
Mr.G Ranadheer	: Student (Second Year)

The functions are:

- Provide library membership to the faculty and students in British council & Anna University.
- Assess the financial support required by the library based on library standards.
- Serve as an interpreter of the requirements of the library to the committee and authorities and recommend for funds needed.
- Provide support to the librarian in taking important decisions having implications for the users (Example: Change in working hours, change in rules regarding membership and borrowing privileges etc.).
- Establish better understanding the role of library among the users.
- Allotting sufficient funds for procurement of documents, employment of staff, purchase of equipment, maintenance etc.

4.2.2 Provide details of the following:

Total area of the library (in Sq.m) : 930 Sq.m
 Total seating capacity : 180 (Air conditioned)

Working hours on working days and holidays:

Monday to Saturday : 8.00 am to 6.00 pm
 Holidays (Except Sundays) : 8.00 am to 3.00 pm



4.2.3 How does the library ensure purchase and use of current titles, print and e- journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

Library holdings	2012-13		2013-14		2014-15		2015-16	
	No	Total Cost Rs	No	Total Cost Rs	No	Total Cost Rs	No	Total Cost Rs
Textbooks	6956	22,52,216	5751	20,58,18	4287	17,26,488	4319	15,75,508
Reference Books	85	3,32,119	123	3,79,696	108	2,41,031	81	2,50,008

Journals/ Periodical	267	3,72,364	268	3,43,205	219	3,35,251	233	3,24,556
Any Other (specify) Library Furniture	Xerox Machine	59,850						
Total (Rs.)		46,45,195		37,33,527		43,92,446		44,16,077

The librarian prepares a budget based on the requirements from the each department and it will be submitted to the management in consultation with the library committee. Students are also members in this committee to provide adequate space for participation as an important stakeholder in the matters of the library and its usage.

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- OPAC (Online Public Access Catalog) : Yes
- Electronic Research Management package for e-journals : Yes
- Federated searching tools to search articles in multiple Databases : Yes
- Library Website : Yes
- In-house / remote access to e-publications : Yes
- Library automation : Yes
- Total number of computers for public access : 10
- Total numbers of printers for public access : 02
- Internet bandwidth/speed :290 mbps
- Institutional Repository : Yes
- Content management system for e-learning : Yes
- Participation in Resource sharing networks/consortia : Yes

4.2.5 Provide details on the following items:

- Average number of walk-ins : 320
- Average number of books issued/returned : 475
- Ratio of library books to students enrolled : 5:1
- Average number of books added during last three years : 4786
- Average number of log into opac (OPAC) : 127 per day
- Average number of log into e-resources : 250 per day

- Average number of e-resources downloaded/printed : 2025 on avg.per day
- Number of information literacy trainings organized : 2

4.2.6 Give details of the specialized services provided by the library

- Manuscripts : Yes
- Reference : Yes
- Reprography : Yes
- ILL (Inter Library Loan Service) : Yes
- Information Deployment and Notification : Yes
- Download : Yes
- Printing : Yes
- Reading list / Bibliography compilation : Yes
- In-house/remote access to e-resources : Yes
- User Orientation and awareness : Yes
- Assistance in searching Databases : Yes
- INFLIBNET/IUC/ISTE/IET : Yes

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

- Member registration
- Issue / Return and Renewal
- OPAC
- Reference Service
- Reprography
- Back Volumes
- Inter Library Loan
- Library Orientation Programmed
- Book Exhibition
- New Arrival
- University Question Bank Section
- Non Book Collection

4.2.8 What are the special facilities offered by the library to the visually / physically challenged persons? Give details.

- The College has high degree of sensitivity to the needs of the differently able as well as visually challenged persons. Magnified Xerox copies of materials are provided.
- Library staff is trained to positively respond to the requirements of the people who need assistance.

4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect

feedback from users? How is the feedback analyzed and used for further improvement of the library services?)

- Yes, Feedback is collected annually. Based on the recommendations of the students and faculty members, books, e-books and journals are purchased.
- Feedback is collected from various stakeholders in the following ways:

Faculty:

- Faculty gives the feedback on Library resources and services in the Department Meetings, Library Advisory Committee Meetings, and Library Committee meetings.
- Informal feedback can be shared with the Librarian as well as the Principal through interaction.

Students:

- Students can express their feedback in Class committee meetings
- Suggestion cum Complaints box put up strategic places can also be used by the students to provide feedback.
- Students can provide feedback in the Feedback maintained in the Library

Additional Facilities:

- Extra library cards provided for the toppers
- Book bank facility available for hostel students

4.3 IT infrastructure

4.3.1 Computing facility available at the institution Computer Centre P-IV Systems 2016-2017

S.No	Description	Quantity
1	P.IV.2.8 Ghz Duel Core Processor 1 G.B Ram, Intel Original Motherboard 80 GB HDD 17" HCL Color Monitor 1.44 fdd, 52xCD Drive, 10/100 Ethernet Card	185
2	Intel Pentium Core 2 Duo 1.80 Ghz CPU/965 MB 1GB DDR2 RAM / 80 GB HDD/1.44 fdd/52x CD Drive / 10/100 Ethernet Card 17" HCL Color Monitor	130
3	Intel Core 2 Quad 2.4 Processor 33 fbc Motherboard, Transcend 2 GB Ram, 160 GB Hdd, HCL Keyboard, HCL 17" Monitor DVD Drive	30
4	P.IV.2.66 Ghz Duel Core Processor 2 G.B Ram, Intel Original Motherboard 250 GB HDD 17" HCL Color Monitor 1.44 fdd, 52xCD Drive, 10/100 Ethernet Card	75
5	Intel Core I3 / Intel DH55TC / 320 GB HDD / 2 GB DDR 3 RAM / SONY DVD Writer / PST Cabinet with SMPS / Logitech Mouse / Acer 18.5 Monitor	114

6	Intel Core I5 / Intel MB / 3.10 Ghz HDD / 4 GB DVD RW / SEAGATE 500 GB HDD / PST ATX Cabinet with SMPS / Acer 18.5 LCD Monitor	90
7	Intel Core I7 / Intel MB / 3.30 Ghz HDD / 4 GB RAM DVD RW / SEAGATE 500 GB HDD / PST ATX Cabinet with SMPS / Acer 18.5 Monitor	60
8	Intel Core I7 2600/ 3.40 Ghz / INTEL 61 WW /8 GB DDR 3 RAM DVD RW / SATA / 500 GB HDD / 20" LCD Monitor / TVS Gold Keyboard / Logitech Mouse / ATX Cabinet with SMPS	150
9	Dell Optiplex 7010, I7-3770/3.40Ghz Processor, 8 GB RAM, 500 GB HDD, DELL Keyboard with Mouse and LCD Monitor	100
10	Dell Optiplex 4770, Quad Processor (3.40Ghz, 8M,86w)/8 GB DDR 3 Memory / 500 GB SATA HDD/ 16x DVD RW/ USB keyboard and Optical Mouse / E2014H-20" Monitor / 3 Years onsite warranty	175
11	Intel Core I7 / Intel MB / 3.30 Ghz HDD / 4 GB RAM DVD RW / SEAGATE 500 GB HDD / PST ATX Cabinet with SMPS / Acer 18.5 Monitor	125
12	Apple Systems	30
Total		1264

Systems available in Labs	859
Systems provided to staff	110
Miscellaneous	295
Grand Total	1264

Computer – Student ratio

- UG: 1:4
- PG: 1:1
- Staff: 1: 2

Standalone facility

- Nil

LAN facility

- All the systems in the college campus are provided with LAN facility

Licensed Software

As per the Anna University requirement based on the curriculum, the software is procured and upgrade periodically with the latest version. The available licensed and the open source software is as follows

Operating system

- Windows NT, Windows 2000, Windows 2008 and Windows 2012
- Windows 95, Windows 98, Windows XP, Windows 7 and Windows 10
- Ubuntu 15.04

- Red Hat Enterprise Linux 6.3
- Mac OS 10.12 – Sierra

System software

- Office 2010 Professional plus with core CAL suite
- Visual studio Pro 2010 License
- MS Project 2010 License
- SQL Server and Client Access License
- Oracle and Developer 2000
- 6. Adobe Photoshop and PageMaker
- Macromedia dream weaver and direct mx
- Rational Rose
- Borland C
- Communication Lab Hi-class Software
- Autolib Software System
- STAAD Pro V8i
- SPSS base 15.05 Modules
- Tally 9
- Matlab
- Etab
- Labview
- Verspro plc
- Proficy machine edition dcs
- NI ELVIS Nation Instrumentation
- Analog Devices visual DC Pluse
- DSP Filter Design Package
- Code Composer Studio DSK v2.1
- C Programs for C50 DSP
- TMS320C2x 2xx 5x Code Generation Tool
- Code Composer Studio DSK v3.1 IDE
- Symantec Anti Virus
- IDEAS MASTER SERIES 7
- IDEAS METAPHASE 3.1
- UNIGRAPHICS
- ANSYS
- ADAMS 10 and 9.1
- HICAD NEXT 2005
- SOLID WORKS
- ANSYS 11 UPGRADED VERSION
- AUTOCAD
- XILINX 6.3 with ModelSim

I. Microsoft School and Campus agreement renewed every year

Number of nodes/ computers with Internet facility

All the systems are connected with internet facility.

Any other In-house software

- CP Tracker
- Online feedback system
- Website update system

4.3.2 Details of the computer and internet facility made available to the faculty and students on the campus and off-campus?

- Internet facility is available for the students and staff in the computer centre between 8.00 am to 6.00 pm.
- Wi-Fi connectivity provided for boys' and girls' hostels.

Details of Internet connection:

- Name of the Internet Provider : Reliance Communications and TATA Teleservices
- Available bandwidth : 290 mbps (220mbps +70 mbps)
- Ratio : 1:1 Ratio
- Availability of internet : Yes (available in all systems)
- Institute's own e-mail facility to faculty / students : Yes
- Security/Privacy to e-mail/ internet users : Yes
- Availability of fire walls : Yes
- Internet via Wi-Fi : Yes

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- The faculty in-charge of Computer Centre Plans the upgradation of IT infrastructure and submits the proposal on the basis of the suggestions from the Heads of the Departments and lab in-charge.
- The centre focuses on system administration and technical support which include software installation, network monitoring and internet connection. Additional labs are equipped for Mobile Application and Big data.
- The centre has established a campus-wide network using a fiber optic backbone with a capacity of 1GB that connects all the academic departments, library and other central facilities to the computer centre.
- The centre has 30 No's Apple Mac "Quad-Core-I5", 2.7GHZ / 8 GB / 1 TB / Intel IRIS Pro Graphics/WLMKB, 250 systems made recently with the following configuration: DELL & Intel i7 processor with 3 .40GHz, 8 GB RAM, 500 GB HDD, 20.5 Inch LED Monitor.

- The centre has three numbers of Dell Power Edge T620, two numbers of Dell Power Edge T420 servers and three Intel servers. It has licensed Application software's and Operating System.



4.3.4 Provide details on the provision made in the annual budget for procurement, up gradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Budget Head for the year 2012-2016

Annual Budget for update, deployment and maintenance of the computers are provided by the Faculty In-charge of computer centre. The proposals are reviewed by the Purchase Committee and funds are allotted on a priority basis. The amount spent by the College for the procurement, up-gradation and maintenance of computers and their accessories are explained in section 4.1.3.

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

- Staff and students are making use of LCD and NPTEL for their teaching and learning processes.
- LCD usage
- Faculty members are highly encouraged to use power point presentation for delivering lecture through LCD projectors.
- Every department is provided with one or more LCD projectors.
- Students are encouraged to deliver the seminars, presentations with the modern presentation aids.

Projector Details 2016 -2017

S.No.	Make LCD	Company	Qty
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1	ACER	Startech	9
2	PANASONIC	Excel Copier system	2
3	DELL	Startech	7
4	BENQ-MS524	HV Solutions	13
5	HITACHI	Silicon	6
6	INFOCUS	HV Solutions	3

Computers:

- Lesson plans are prepared in soft format in the computer and shared with students.
- Attendance, internal assessment and University marks are software based.
- Students' feedback is taken online and analysis made using software.

Application:

- Centralized database system is available both for staff and students.
- Internet access to all faculty and students which helps them to access all materials available in other universities and make use of the same for study and lecture delivery.

NPTEL:

- Lecture videos are uploaded for the benefit of the students and updated in regular intervals.
- College is a designated NPTEL study centre and has a faculty nominated to interact with IIT-M for periodic updates and optimal usage of NPTEL videos.
- NPTEL Online certification exams are co-ordinated, based on the registrations from students and staff.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching – learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

- Soft copy of notes and presentations are made available in each department
- Group email id is available to distribute learning content to all in a class/department/year
- Individual student email id is provided and managed by the Computer Centre.
- Wi-Fi id and password is provided to all students
- Students are encouraged to learn and give seminars on latest topics
- Competitions to encourage innovative project ideas are conducted and awarded
- Online courses/modules can be learnt from campus upon registration

4.3.7 Does the Institute avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

Yes, Facility available through Anna University Corporate Membership.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

- A department budget is prepared by the faculty members (Laboratory in-charges, coordinators of various department activities) based on the purchase of equipments, consumables, software and miscellaneous expenses for academic activities in the beginning of every academic year.
- The allocation & adequacy of the budget is discussed in the department staff meeting and is approved by the HOD and the same will be submitted to the Principal for approval. Principal will compile and scrutinize the budget proposals in the HODs meeting and submits the same to the management for approval.

Table below shows the details of budget allocated and spent (in Lakhs) for the institution for the four financial years.

Item	Budget 2015-16	Expenses 2015-16	Budget 2014-15	Expenses 2014-15	Budget 2013-14	Expenses 2013-14	Budget 2012-13	Expenses 2012-13
Infrastructural built-up	50	599.81	250.00	57.72	550.00	587.21	400.00	360.03
Library	50	33.30	30.00	25.91	25.00	26.94	10.00	14.34
Laboratory Equipment	65	20.37	42.66	56.49	50.00	40.16	148.41	78.83
Laboratory consumables	40	15.63	9.12	39.05	20.00	29.72	17.00	15.54
Furniture & Fitting and Other Assets	80	66.90	90	0.11	20.00	206.82	5.00	34.71
College Maintenance	90.10	185.67	60	97.13	28.50	113.62	11.00	89.76
College & Sports Day Expenses	76	34.62	10	69.23	50.00	52.67	30.00	19.00
Garden Expenses	25	3.36	12	22.85	15.00	9.45	5.00	12.53

Hostel and Mess Expenses	720.42	208.24	532	218.89	600.00	632.49	285.00	498.29
Repairs & Maintenance	44	65.10	70	54.3	29.00	72.47	30.00	54.30
Telephone & Internet Expenses	40	46.00	45	36.51	31.00	40.73	31.00	22.36
Vehicle Maintenance	180	207.14	350	177.52	450.00	544.20	250.00	368.68
Insurance	3.30	1.93	3	3	2.50	2.58	2.50	5.81
Membership & Subscription	7	12.87	3	6.66	5.00	1.29	1.50	2.67
Total	1470.82	1500.94	1506.78	865.37	1876	2360.35	1226.41	1576.85

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

- Surveillance camera with physical security at the main entrance
- Centralized water and power supply monitored by qualified technicians
- Electrical Security Systems with automation and proper earth connection
- Lighting arresters in the tallest building structures and its earth resistance is ensured once in 6 months.
- Proper earth connections are provided for all electrical installations in the campus with earth resistance of 0.5Ω , checked once in 6 months.
- Different types of fire extinguishers are available and placed appropriate location in the campus & checked periodically.
- Safety charts & instructions in appropriate places in the campus.
- Electrical installations in the Institution, inspected by the Electrical Inspector from the Electrical Inspectorate, Government of Tamil Nadu, according to Rule 46 of Indian Electricity Rules 1956 once in a year.

Separate Departments are available for maintaining the following:

Service Department	No. of staff
Electrical lines and equipment	9
Civil works	13
Transport– Mechanics	14
Transport– Drivers	83
Computer servicing	8
House Keeping	138

Lab equipment are serviced by the manufacturers and service personnel. Annual maintenance scheme is also made use of when it is required.

Safety norms and checks carried out in buildings & laboratories:

1) **Earthquake resistance:** The building has been designed to resist earthquake (ductility provisions)

2) **Fire Safety norms and Checks:**

As per Indian standard code (IS 14435: 1997) the building complies with following norms

- Sufficient fire extinguishers
- Fire safety certificate issued by fire department.
- Non-combustible materials for construction and staircase walls with minimum 2h rating.
- Exit signs and floor indication boards fixed at strategic locations.

3) **Electrical equipments:**

- Electricity Generator housed out of institute building.
- MCBs used at all electrical installations.
- Sufficient Earth connections provided (3 for institute building and 2 for workshop)
- C Certificate

4) **Workshops:**

- All rotating part machines provided with protective guards.
- List of Do's and Don'ts displayed for students' information.
- Wearing aprons are made mandatory.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipments/instruments?

- As and when required, the institution takes up calibration and other servicing measures for the equipment/instruments through suppliers and service personnel periodically and in some cases through annual maintenance eservices.
- The departments maintain the complete records of such services.

Checks on Safety norms

S. No.	Details of Check	Frequency
1	All electrical equipments and installations are checked at start of semester	Half Yearly
2	All electrical & mechanical machines are inspected at start & mid semester	Quarterly

3	Fire extinguishers are recharged after expiry date of constituents.	Depends on the expiry date
4	Earthings are checked for conductivity.	Annually

4.4.4 What are the major steps taken for location, up keep and maintenance of sensitive equipment (voltage fluctuations, constant water supply etc.)?

- Equipments such as CNC production type lathe, Coordinate measuring Machine in the Manufacturing Laboratory and CNC Trainer kits CAM Laboratory are located in the air conditioned space.
- Necessary precautions are taken depending on the equipment before installing.
- Stock registers and service requests are maintained by software and in registers.
- Voltage stabilizers and UPS are provided to ensure uninterrupted power supply.
- Water supply provision is made near needed equipments/ lab and 24hour water supply is ensured.
- Periodic maintenance and calibration of the equipment from suppliers is made on demand or by AMC.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes, the institution publishes the Prospectus/ Information Brochure annually.

Prospectus is issued to all the prospective students along with the application form during the time of admission.

- Prospectus contains Vision and Mission of the institution, UG and PG programmes offered, eligibility criteria, information about the departments, infrastructure, value additions provided to hone skills of the students through Centres of excellence, value added courses and Training programmes, achievements in terms of academic and extra & co-curricular activities, career guidance, industry and academic partnerships through MoUs and innovative practices followed in the departments.
- It also provides information about ethics and code of conduct, hostel facilities, infrastructural set up, transport facilities, campus networking, various co-curricular and extra-curricular activities offered by the institution.

Website

- Institution's website (www.rmkec.ac.in) provides campus tour and the all the information pertaining to the institution in detail. The stakeholders of the institution can get the required information with just-a-click. Website is updated regularly for the latest information.

Academic calendar

- The academic calendar provides information on all day-to-day activities at the micro level such as the academic schedule, no. of working days, national holidays, Internal assessment tests and model examination schedules, tentative end-semester theory and practical examinations schedule, revision period etc.

All these forms of information are provided to ensure commitment and accountability of the faculty.

- Academic calendar is prepared by a committee headed by The Principal with Dean, Academic co-ordinator, and the HoDs as members.
- It facilitates the faculty members to prepare lecture plans and ensures adherence to the plan.

- It helps the students and faculty to plan the academic activities well in advance.
- It helps the students to plan their visit to their native and the parents to plan their visits to the institution.
- It also ensures that all the information given are authentic and strictly followed. At the same time, it also carries some flexibility for suitable contingency modifications and in line with University requirements.
- It facilitates the examination cell to organise the internal assessment tests and end-semester examinations as per the schedule.

Thus every faculty member is accountable for the academic activity with utmost care and commitment.

5.1.2 Specify the type , number and amount to institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Details of Institutional fellowships

Financial assistance is offered in the form of scholarship every year to the students under different categories and is made available and disbursed on time.

- In addition to the scholarships awarded by the Government of Tamil Nadu, the college has initiated several “Merit cum Means” Scholarships. There are 62 numbers of Scholarships offered to the students by the institution annually and names of the Scholarships are given in the Annexure 5.1. The amount of Scholarships and number of students benefitted every year are given in the table 5.1.

Table 5.1 Details of scholarships offered by the Institution

Academic Year	No. of students received the scholarships	Total amount of scholarship (Rs)
2015-16	62	310000
2014-15	62	310000
2013-14	62	310000
2012-13	62	310000

5.1.3 What percentage of students receive financial assistance from state government, central government and other national agencies?

The college facilitates the students to avail a host of scholarships from the Governments and different agencies.

- Government of Tamil Nadu offers tuition fee concession to every first generation graduate from each family. The details of concession fee for each Academic year and the number of students benefitted are given in the table 5.2
- Students who obtain Tamil Nadu CM award and Anna award for meritorious performance in H.Sc are provided financial assistance for their entire Undergraduate courses.
- Christian and Muslim students are facilitated to get Minority Scholarships
- Stipend to the PG students admitted through GATE score.

Table 5.2 Details of First Generation Graduate Students Tuition Fee Concession

S. No.	Academic Year	No. of Students				Total Amount (Rs.)
		OC/ BC/ MBC	SC/ SCA	ST	TOTAL	
1	2012-13	481	119	1	601	1,20,20,000
2	2013-14	635	159	1	795	1,59,00,000
3	2014-15	645	45	2	692	1,38.40,000
4	2015-16	598	32	2	632	1,26,40,000
5	2016-17	494	20	2	516	1,03,20,000
	TOTAL	2853	375	8	3236	6,47,20,000

5.1.4 What are the specific support services/facilities available for

(a) Students from SC/ST, OBC and economically weaker sections

- Eligible SC/ST and BC/MBC students receive scholarship/free ship from the Tamil Nadu Social Welfare Department. The details of such scholarships for each Academic year and the number of students benefitted are given in the Table 5.3.
- Book bank scheme is provided to these students.

Table 5.3 Govt. Scholarship Details for each Academic year

Sl. No.	Academic Year	SC/ ST		BC/ MBC		Total	
		No. of Students	Amount (Rs.)	No. of Students	Amount (Rs.)	No. of Students	Amount (Rs.)
1	2012-13	159	10,86,200	496	16,65,085	655	27,51,285
2	2013-14	191	14,15,450	513	22,57,585	704	36,73,035
3	2014-15	217	15,53,350	572	29,04,745	789	44,58,095
4	2015-16	219	15,87,300	521	26,96,845	740	42,84,145
		786	56,42,300	2102	95,24,260	2888	1,51,66,560

(b) Students with physical disabilities

The facilities provided by the institute to differently abled students are as follows:

- Students with physical disabilities are provided with extra time in university examinations and scribes are arranged during examinations as per university norms.
- In case of students with partial visual impairment, question papers with large font size are provided.
- Ramps are provided at the entrance of specific department for the convenience of these students, if needed.
- Most of the laboratories are located in the ground floors.
- Classrooms are also arranged in the ground floors.

(c) Overseas students

Overseas students are admitted under NRI category. The Trust has an international cell which provides information about various programs offered to the international students, their fee structure and eligibility for admission, hostel accommodation and also about the various facilities available in the campus.

(d) Students to participate in various Competitions-National and International:

- Students are encouraged and sponsored to participate in extra and co-curricular activities such as technical fests, cultural events, sports events etc. which are organized by reputed institutions such as IITs , NITs, Universities and other colleges.
- All necessary support and services like financial assistance, Wi-Fi facility and library facility are provided. A separate budget provision is made to take care of these activities.
- Faculty members are assigned to guide and assist the students for various technical activities.

(e) Medical assistance to students: health centre, health insurance etc.

Albeit the submission of Medical Fitness certificate is mandatory by all the students admitted is mandatory, in case of emergency the institution provides the following medical assistance.

- 4 bedded clinic with full time doctors is available in the campus.
- A hospital inside the campus with beds, doctors and nurses.
- An ambulance is available in the campus to transport the students to the hospital.

Availability of first-aid unit

- All the departments are equipped with First Aid boxes.
- Periodical inspection is carried out to replace the expired medicines with fresh stock.

(f) Organizing coaching classes for competitive exams

Higher Education cell established in 2009 facilitates the students who aspire to do higher studies in India and Abroad through various programmes.

- Second year students are enlightened with the various competitive examinations such as GRE /TOEFL / IELTS / CAT / GATE through the representatives from renowned institutions.
- An awareness presentation on “Civil services examinations” is provided by the retired IAS officers for the third year students.
- MoU is established with The Princeton Review for GRE / TOEFL / IELTS classes for students of the institution either on-campus or off-campus.
- MoU is established with GATEFORUM for GATE classes for students of the institution either on –campus or off-campus.
- Coaching classes – GRE / IELTS / TOEFL classes are organized for third year students.
- GATE training is provided to third year students.
- Mock GRE / GATE examinations are conducted for students in their final year. Number of Programmes conducted for competitive examinations for the past four academic years are given in the Table 5.4

Table 5.4 Number of Programmes conducted for competitive examinations

Competitive examinations	2013-14	2014-15	2015-16	2016-17
GRE / TOEFL / IELTS	1	1	2	1
GATE	1	2	1	2
CAT	-	1	1	2
Civil Services	1	2	1	1
Mock GRE	-	-	-	1
Mock GATE	1	1	1	1

(g) Skill development (spoken English, computer literacy, etc.) Soft skill development

English language proficiency is honed through fully equipped language laboratory to train the students as part of Anna University curriculum with 3 credits.

Guest lectures by eminent and distinguished personalities are arranged by the Training and Placement department regularly.

Every department takes efforts to enhance soft skills such as Interpersonal skills, communication skills, leadership skills, team playing etc.

Infosys Campus connect programs & WIPRO PRP are conducted to enhance the programming skills.

(h) Support for “slow learners”

- Vocational stream students and Tamil and Telugu medium students are identified in the first semester itself and special attention is given to them by conducting bridge courses to fill the knowledge and skill gap.
- Slow learners are identified on the basis of their performance in the Internal examinations. Special mentoring is provided for weak students not only to help them in academics but to provide guidance for career development, help them tackle personal and social problems and to guide them for their overall development.
- Parent teacher meet is conducted to bridge the gap. Weak students are counselled in the presence of their parents. Professional counselling is also given, if needed.

(i) Exposures of students to other institution of higher learning/ corporate/ business house etc.

- Industrial visits are arranged twice a semester for students from their second year.
- Students are encouraged to participate in the events organised by reputed institutions such as IITs, NITs and the like.
- The institute has been recognized as one of the Business Incubator by Ministry of Micro Small Medium Enterprises, Government of India. Also it has been recognized as one of the nodal hub in conducting **Institutional Entrepreneurship Development Program (IEDP)** by Entrepreneurship Development Institute (EDI), Government of Tamil Nadu & Centre for Entrepreneurship Development (CED), Anna University, Chennai.

(j) Publication of student magazines

- Newsletters are periodically published by the institution to highlight the achievements of the students and faculty members and showcase special activities conducted during the semester like Guest Lectures, Training programs, symposia, etc.
- A yearly magazine named RMKANIKA is published to bring the extracurricular talents of the young minds of the institution.
- A scientific Journal named RSM International journal of Engineering, Technology and Management is published annually to bring out the technical skills of the students and faculty.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

Management provides the necessary support and infrastructure through various initiatives to hone the entrepreneurial culture.

Innovation and Entrepreneurship Development Centre (IEDC)

- RMK Engineering College has been accorded to establish IEDC by the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology, and Government of India in the academic year 2011-12 and is for five years from 2011 to 2016.
- The objectives of the IEDC is to promote and develop institutional mechanism to create entrepreneurial culture in academic institutions and to foster growth of innovation and entrepreneurship amongst the faculty and students
- A total number of 26 projects have been completed since 2011 and the details of these projects are given in the Annexure 5.2 and of which 10 projects have been applied for patents.
- Many Awards & Prizes are accorded to the Students through IEDC and it also facilitates the students to start their own start-ups as provided in Annexure 5.3.
- The progress report of IEDC containing the sanction order details for the period of five years is given in the Annexure 5.4.
- The center conducts various Entrepreneurship and Innovation related programmes in association with various agencies like MSME, TiE, NEN and other organizations regularly for the aspiring entrepreneurs.

Business Incubator

- RMK Engineering College has been recognized as one of the Business Incubators by the Ministry of Micro Small Medium Enterprises, Government of India and also has been recognized as one of the nodal hub in conducting IEDP by EDI, Government of Tamil Nadu & CED, Anna University, Chennai .
- Two of our faculty members Dr T.Suresh, Prof / ECE and Dr N.M.Jothi Swaroopan Prof / EEE got certification on the **Trainers Trainer program on Entrepreneurship by EDI and CED,AU, Chennai.**
- Two of our faculty members Dr N.M.Jothi Swaroopan Prof / EEE and Mr M. Muthukrishnan /ME got certification on **Intellectual Property Rights & Patent Drafting** by EDI and CED, AU, Chennai
- Two of our students Mr A.Chandrasekar & Mr R.B.Vasanth of III-EEE attended E-leader workshop conducted by **EDI and CED, AU** and they are conducting the Learn wise certification program to 50 of our students.(LearnWISE is an integrated learning platform that helps colleges & faculty organize and manage entrepreneurship education, which will create an eco-system for the institution and in turn motivate the students on Innovation and Entrepreneurship.)

Entrepreneurship Cell

- An “Entrepreneurship Cell’ is established by our alumnus Er.P.K.Hari, 2009/ECE, Entrepreneur, Co-Founder, Blu-Dacnis in the year 2012.
- The E-cell conducts various activities to promote the entrepreneurial culture and ignite the creativity in the younger minds for new product development.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

- Our institution provides facilities for students to involve in various extra and co-curricular on par with the academic focus and it is proved by the following activities:
- The institute organizes inter-collegiate RMK rolling trophy cricket tournament among the colleges affiliated to Anna University.
- Our college encourages students to participate in zonal, regional, national and international level sports meets.
- Every department has students’ association which conducts technical events such as technical symposia, project competitions, paper presentation contests etc.
- Students are also encouraged to participate in technical symposia, conferences, workshops and seminars conducted by other academic institutions and corporate through providing TA & DA and special recognition during the college annual day.
- The college recognizes the laudable achievements in extra and co-curricular activities of our students in the competitions through cash prizes and awards during the Annual day and Sports day.

Additional academic support, flexibility in examinations, special dietary requirements, sports uniform and materials, any other

Apart from good academic record, sports play a very important role in building one’s personality. Institute encourages students to participate in a variety of sports activities at intercollegiate, university, zonal, state and national and international levels.

- Well qualified Physical Education Directors are appointed to look after sports activities of the institution.
- The college provides required kits/material and daily allowance to students participating in sports activities.
- Students are given ‘On Duty leave’ for attending these programs.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and

qualified in various competitive exams such as UGC-CSIR-NET, UGC-NET, SLET, ATE/CAT/GRE/TOFEL/GMAT/ Central/State services, Defence, Civil Services, etc.

Higher education cell, a well-structured Support System, is established with the sole aim of motivating and encouraging the students to pursue higher education in India and abroad.

- The Centre identifies the Aptitudes of the Students for Higher Studies; accordingly, the Department arranges ‘Guidance’ through Lectures by eminent personalities so as to assist the students in making their right choice regarding the Subjects, Courses and Universities for Higher Studies, both in India and abroad.
- The centre aims at providing systematic and methodical guidance on the various competitive examinations after B.E/ B.Tech. degrees which facilitates them to pursue Masters’ degree like M.E/M. Tech from India, M.S from abroad, M.B.A from India and abroad and Ph.D. The number of students qualified in various competitive for the last four years are given in the table 5.5
- Eminent academicians and representatives from globally top ranked Universities from USA, UK, Germany, Sweden and Australia interacts with students.

Table 5.5 number of students qualified in various competitive exams

Academic year	GRE	GATE	TANCET	CAT	UPSC	Others
2013-14	12	1	9	-	-	10
2014-15	21	2	8	-	-	12
2015-16	23	1	3	-	-	1
2016-17	22	6	-	1	2	14

Others: Admission to other higher education institutions

Activities of the Higher education cell

- Creating awareness among students of various avenues for higher studies.
- Collecting the data of the graduating students who aspire to study abroad and to maintain a comprehensive database.
- Collecting data of the Alumni who have done higher studies
- Fostering a network among Universities, Colleges, Institutions abroad committed to impart Higher Education and Collaborative Study programmes.
- Interfacing with the appropriate authorities at the collaborating Universities and Institutions
- Promoting new relationships between overseas Universities and Institutions and to help define the scope of such relationships through appropriate Memoranda of Understanding (MoUs).

- Organizing Seminars on “Higher Education at various Universities abroad” periodically.
- Organizing one-to-one counselling sessions on preparations, procedures for applying higher studies programme by the eminent University / Institution representatives.
- The road map of higher education cell activities are well defined
- The list of programmes conducted for each Academic year are planned well.

5.1.8 What type of counselling services are made available to the students (academic, personal, career, psycho-social etc?)

The Institute has a unique Student Mentoring System for all the programs. The objective of this system is to help, support, counsel and guide the students for improving their overall personality. The mentoring system of the institution is given in Table 5.7

- The Number of Faculty Mentors for the past three academic years is given in Table 5.6

Table 5.6 Number of Faculty mentors in the institute

Academic Years	Number of faculty
2013 - 14	174
2014 - 15	182
2015 - 16	179

- Number of students allotted per Mentor – **maximum of 24**
- Frequency of meeting: Once in a week on a regular basis and whenever necessity arises, the required counseling is extended.

Table 5.7 – Mentoring System

Mentor / Counsellor	Mentee	Issues
Faculty	15-24 students	Academic / personal issues
T & P / HE cell / IEDC	All the Students	Career Guidance
Professional	To the needy	Issue based

The Student Counselling Service here helps to address personal or emotional problems to realize their full academic and personal potential. The counselling system offers a confidential service, to be more specific, a remedial relationship where healing is experienced.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If “yes”, detail on the services provided to help students

identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the Programmes).

Yes, the institution has a structured mechanism for career guidance and placement for its students.

- The Department of training and placement interacts with reputed organizations all over the country for campus recruitments of our final year students. It makes efforts to arrange in-plant training and internships to enhance their technical ability and gain exposure to the practical world.
- RMKEC enhances the soft-skill capability of the students through regular training programs. The main objective of the training programmes focuses on personality development, communication improvement, logical thinking, interpersonal skills, time management, and confidence right from their first year onwards.
- Training & Placement cell train the students to acquire skills in tune with industry requirements and arranges pre placement talks for on and Off Campus interviews.
- Various training programs offered to the students regularly and number of students benefitted through these training programmes are given in table 5.9 and Annexure 5.8
- Industrial visits to reputed companies are arranged twice in a semester for providing to practical exposure.
- The department counsels the final year students for their higher studies and for getting projects from industries.
- Special lectures by industry experts are arranged to make the students aware of current industrial trends and requirements.

Percentage of students selected during campus interview in the last four years are given in the following table 5.8

Table 5.8 Percentage of students selected in campus placement in the last four years

Academic Year	2013-14	2014-15	2015-16	2016-17 *
No. of Students Registered	512	760	783	594
Number of students Placed	415	630	662	504
% of placed students	81%	83%	85%	85%

*Placement in progress

The programme wise placement details for the current batch (2013 – 2017) are given in the table 5.8

Table 5.9 Programme wise placement details for the current batch (2013 – 2017)

S No.	Department	No. of students Registered	No. of students Selected
1	Computer Science and Engineering	83	78
2	Information Technology	62	59
3	Electronics and Communication Engineering	106	92
4	Electrical and Electronics Engineering	108	91
5	Electronics and Instrumentation Engineering	75	74
6	Mechanical Engineering	112	98
7	Civil Engineering	30	10
8	Master of Engineering	18	02
	Total...	594	504 *

* Placement in progress

There are regular recruiters of the institution which include 110 software companies and 115 core companies.

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

- Yes, the institute has a student complaints-cum-redressal committee headed by the Principal, HoDs, senior professors and external members. The committee was constituted on 25.07.16 and re-constituted on 31.12.16.
- Specific grievances of the students are brought to the attention of the HoD through the faculty counselor and the issues are addressed appropriately.
- Students can approach the committee for academic and personal grievances.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

- A committee to address issues regarding sexual harassment was constituted headed by the Principal, HoDs and senior professors based on the norms proposed by Sexual Harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013). The committee was constituted on 25.07.16 and re-constituted on 31.12.16.
- A faculty from Law College, conversant with issues pertaining to sexual harassment is also included as an external member of the cell.
- The cell holds periodic meetings and strives to create awareness amongst faculty, staff and students on the various gender based issues. Grievances, if any, are thoroughly

investigated and efforts are taken to ensure that justice is meted to the victim/complainant.

5.1.12 Is there any anti ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes. Ragging in any form is prohibited in the campus. However, the College has an Anti-Ragging Committee as per norms, since its inception.

The duty of the Anti-Ragging Committee is

- to ensure compliance with the AICTE Regulations and the provisions of any law in force concerning ragging;
- to monitor and oversee the performance of the Anti-Ragging Squad in prevention of ragging in the institution.

Apart from this, the students are closely monitored by the teaching and non-teaching faculty in the campus. These rigorous practices ensure absolute absence of ragging and no case is recorded.

Anti-Ragging Squad

The duties of the Anti-Ragging Squad

- to make surprise inspection of hostels, students' accommodation, mess, rest rooms and other places vulnerable to these incidents
- to take any measure to avert well in preventing / quelling ragging
- to ensure the communication of punishments if involved in ragging
- to display the anti-ragging posters at all prominent places in the campus
- to make aware of the anti-ragging helplines and websites, anti-ragging monitoring agency.
- To take legal actions as per the law.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The institution has a strong attitude in helping the students to equip them with in-depth knowledge and technical skills necessary for their personal growth, employability and capable of leading a successful life in the future. It has implemented various welfare schemes for students:

- Merit cum means scholarships
- Guidance for state and central government scholarships
- Support for participation in conferences, paper presentations, etc.
- Funding for innovative projects

- Guidance for getting educational loan
- Organizing book-fairs, education-fairs etc.
- Career guidance and employability training camps and campus placement Support for participation in curricular, co-curricular and extracurricular events
- Bridge courses for slow learners
- medical and fitness camp
- Counselling and mentorship
- Training for BEC Examinations
- MoUs with industry and academia
- Training for IAS Examinations
- GRE / TOEFL / IELTS training
- CAT examinations training
- GRE Workshop
- Guidance for Education in Overseas
- Training for UPSC Examinations
- Sports awards

For detailed welfare schemes: refer Criteria.5.1.2 and 5.1.7.

5.1.14 Does the institution have a registered Alumni Association? If ‘yes’, what are its activities and major contributions for institutional, academic and infrastructure development?

Yes, the institution has a registered Alumni Association. Its activities and major contributions for institutional, academic and infrastructure development are given below.

- RMKEC Alumni Association was formed on 12th may 2002 by the alumni of RMK Engineering College. It is governed by an elected body of members, which consists of a president, a vice-president, a secretary, a Treasurer and 7 office bearers. Election is conducted during the annual general body meeting.
- RMKEC Alumni Association meetings are conducted twice a year, one on the graduation day at the college premises and another on a Sunday in the month of November in the city.
- Association has a joint account operable by the secretary and the treasurer in the name of RMKEC Alumni Association at IOB, Kavaraipettai.
- An online newsletter “*SUNERGIA*” of the RMKEC Alumni Association is published every year, in which reports of the recent happenings, developments of our college, and achievements of present and future alumni members are posted.

- “Distinguished Alumnus Award” to recognize the contributions & achievements of the alumni members is being given for every year.

Contributions of the Alumni association to the institution:

- An Alumni website was created by Er.Jagadeesh/2010/ECE which is linked with the college website. Information regarding present job opportunities, academic requirements, recent trends in the field of engineering, higher studies guidance, etc., is posted in the website.
- “RMKEC Alumni Association Best Project award” is awarded for the final year students of all the departments from 2011.
- “RMKEC Alumni Achiever Award” is awarded to the alumni for their exemplary contribution to the institution.
- RMK Alumnus visits the college campus regularly to enlighten their juniors with the knowledge and experience they have acquired. An appreciation memento is given to the alumni who visit our campus to give guest lectures.
- An “Entrepreneurship Cell” is formed by our alumnus Er.P.K.Hari, 2009/ECE, Entrepreneur, Co-Founder, Blu-Dacnis.
- The initiatives of the association:
 - an alumni placement cell to guide the alumni who are yet to be placed to get a better placement
 - an alumni higher studies cell to guide the students for higher studies
 - an alumni social services cell to render our services to our society
 - an alumni project cell to guide our juniors to do innovative projects
- Alumni mock Interviews are conducted for all the departments to prepare the students for placement.
- Alumni pre-placement talks are conducted to enhance the employability skills of the students.

5.2 Student Progression

5.2.1 Provide the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Table 5.9 Student Progression

Student Progression	%
UG to PG	5.49
Employed	84.55
<ul style="list-style-type: none"> • Campus selection • Other than campus Recruitment 	

Details of students placed through campus placement are given in the table 5.10. Due to the sincere efforts of the Training & Placement cell, more than 80 % of the students get placed in reputed companies. The median salary of the placed students is Rs.300000.

Table 5.10 Details of students placed through campus placement

S.No	Batch		Total No. of students Admitted (First Year + Lateral Entry)	No. of students graduating in minimum stipulated time	No. of students placed through campus placement	Median salary of placed graduates (Amount in Rs.)	No. of students selected for Higher Studies
1	2010-14		861	756	415	300000	46
2	2011-15		1062	948	630	315000	45
3	2012-16		1219	994	662	325000	56

Because of the excellent campus placements, the percentage of students enrolling for Higher studies is less than 10 % only. The percentage of students getting campus placements and going for higher studies for the last three years are given in the following table 5.11.

Table 5.11 Percentage of students - campus placement and higher studies

S.No	Batch	Total No. of students admitted	Placed in campus placement %	Going for Higher studies %
1	2010-14	861	81.00	6.08
2	2011-15	1062	83.00	4.75
3	2012-16	1219	85.00	5.63

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

The programme wise pass percentage details in the University Examinations for the last five academics are given in the tables 5.12 and 5.13.

Table 5.12 Pass percentage details for the Even semester

BRANCH / YEAR	CE	CSE	EEE	ECE	EIE	ME	IT	OVERALL
2011 - 12	81.21	81.32	76.36	78.10	77.86	77.24	81.92	79.10
2012 - 13	80.05	80.57	79.09	78.92	84.36	82.18	84.67	81.21
2013 - 14	79.65	84.31	90.30	87.98	89.24	90.65	85.12	87.32
2014 - 15	85.55	81.89	81.66	86.72	85.37	86.66	88.71	85.16
2015 - 16	81.45	86.85	83.03	89.06	89.34	84.20	94.02	86.26

Table 5.13 Pass percentage details for the Odd semester

BRANCH / YEAR	CE	CSE	EEE	ECE	EIE	ME	IT	OVERALL
2011 - 12	76.17	70.99	78.72	78.44	77.48	74.61	74.95	75.77
2012 - 13	80.87	74.52	77.00	80.94	84.97	82.07	79.12	79.65
2013 - 14	70.35	70.24	76.94	74.96	80.31	71.27	74.40	73.84
2014 - 15	76.05	73.32	78.33	83.91	81.43	80.43	76.47	78.92
2015 - 16	70.17	80.69	83.94	84.65	89.92	81.27	86.93	82.13

The above tables show a consistent academic performance and it should also be noted that the results have improved due to the remedial measures taken.

Table 5.14 Student Progression (UG and PG Courses)

S.No	Academic year	Students Admitted	Students Passed out in first attempt
UG Courses			
1	2008-2012	630	549
2	2009-2013	782	704
3	2010-2014	852	756
4	2011-2015	1043	948
5	2012-2016	1197	1102
PG Courses			

1	2010-2012	52	51
2	2011-2013	63	62
3	2012-2014	62	60
4	2013-2015	62	61
5	2014-2016	49	49
M.C.A			
1	2009-2012	38	37
2	2010-2013	52	50
3	2011-2014	47	45
4	2012-2015	36	36
M.B.A			
1	2010-2012	57	52
2	2011-2013	57	54
3	2012-2014	56	53
4	2013-2015	36	35
5	2014-2016	39	39

The semester wise Anna University Ranking based on the pass percentage (No. of students passed in all subjects) in the University examinations from Nov/Dec 2012 to Nov/Dec 2015 is given in the table 5.15.

Table 5.15 Anna University Ranking based on the pass percentage in the University examinations for the past three years

S.No.	Month/Year	Percentage of Pass	Rank in Anna University affiliated colleges	Total number of colleges affiliated to Anna University
1	Nov/Dec 2012	79.56	14	497
2	Apr/May 2013	81.24	26	497
3	Nov/Dec 2013	73.46	24	506
4	Apr/May 2014	87.26	16	525
5	Nov/Dec 2014	78.85	28	523
6	Apr/May 2015	85.32	21	522
7	Nov/Dec 2015	81.92	17	516

Out of around 500 Engineering colleges affiliated to Anna University, the institution has secured excellent ranks. The institution has consistently outperformed in the University examinations.

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

- HoDs, professors and faculty counsellors guide the students to prepare for higher studies. Students are provided guidance to apply for higher education in reputed Institutions in India and abroad.
- Higher education cell conducts various training programs to empower the students for GATE/CAT/GRE/TOFEL/GMAT/ UPSC examinations and other competitive examinations.
- Training and Placement cell conducts various training sessions to improve soft skills, technical skills and aptitude development.
- The Innovation and Entrepreneurship Development Centre (IEDC) develops institutional mechanism to create entrepreneurial skills among the students.

For further details: refer 5.1.4, 5.1.5, 5.1.7 and 5.1.9.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

- Small class sizes and committed faculty advisors offer academic and professional services to ensure that every student achieves his/her dreams.
- Students at the risk of failure or end up as dropouts are monitored by the counselling System. The counsellors keep a record of the family background of students, past performance, results of internal tests and model examinations.

The following steps are taken to reduce risk of failure and drop out.

- Maintaining daily attendance and reporting to the parents
- Providing simple notes
- Conducting special coaching classes
- Effective counselling by counsellors
- Providing special attention by the individual subject faculty
- Conducting Tutorial hours
- Conducting Parent teacher meet
- Providing economical support
- Counselling by professional counsellors
- Extending peer support
- Assisting and motivating the students during Examination Preparatory holidays

In Tamilnadu, supplementary Medical counselling is conducted until September of every year. The institution has higher cut-off marks for admission into the institution. Some of the medical aspirants discontinue from the institution and join in medical colleges. However, the dropout rate in the institution is only less than 0.5% which is insignificant. Percentage of Students discontinued from the institution for the past four years are given in the table 5.16.

Table 5.16 Percentage of drop-outs

Academic Year	2016-17	2015-16	2014-15	2013-14	Average
Percentage of drop-outs	1.56	1.41	3.09	1.63	1.92

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Institute conducts various sports, games, cultural and other extracurricular activities for the students. It prepares the program calendar for cultural and other extracurricular activities after taking inputs from HoDs, Physical directors and student representatives.

In the odd semester, students are identified and encouraged to participate in zonal, university, national and international competitions.

Annual cultural, technical and sports events are conducted.

Activities of Physical Education Department

Every year, large number of students take part in various sports activities and their splendid performance has brought laurels to the institution at the intra-mural, Zonal, Inter Zonal, Inter University, State, National and International Competitions.

- Conducting Annual Intra Mural Competitions
- Making students to participate in External Sports events

Annual Intra Mural Competitions

Intra-mural Sports competitions are conducted once a year on various outdoor and indoor games. The 20 day games and athletic events include

- **Boys' Games and Events:** Chess, Caroms, Table Tennis, Tennis, Badminton, Ball Badminton, Volley Ball, Basket Ball, Cricket, Athletics.

- **Girls' Games and Events:** Chess, Caroms, Table Tennis, Badminton, Ball Badminton, Volley Ball, Basket Ball, Throw Ball, Athletics.

- **External Sports events**

The students participate in various sports events like

- Zonal games (There are 19 Zones in Anna University and RMKEC comes under Zone 1 consisting of 33 colleges)
- Inter Zonal games
- Inter University games
- TIES (Tamil Nadu Inter Engineering Sports)
- Other college invitation sports
- Intra-Murals
- Smt Manjula Munirathinam Memorial Trophy (Cricket)

Smt. Manjula Munirathinam cricket rolling Trophy

The institution conducts an annual inter-collegiate Smt. Manjula Munirathinam cricket rolling Trophy every year among the Anna University affiliated Engineering Colleges with a budget of Rs.10 lakhs every year.

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

The College views extracurricular and co-curricular activities as integral to the holistic development of students. Opportunities are identified, created and opened to promote student participation in them. Financial support as well as training and development support are provided by the institution appropriately. The college helps the students in these activities in the following ways.

The co-curricular activities are arranged at the institution and at the departmental level every year towards the attainment of communication, technical and professional skills. Management of RMKEC encourages students to participate in co-curricular and extracurricular activities so as to develop the overall personality of the students.

- The students who bring laurels to the college at the inter-collegiate competitions are felicitated by gift vouchers/cash awards during the annual college day.
- The institution conducts annual day in every academic year during the month of March/April which involves competitions on literary and cultural activities which are listed in the table 5.17 & 5.18.

Table 5.17 Cultural and Literary activities by the institution

S.No	Events	S.No	Events
1	Elocution English	12	Junk art and Vegetable art
2	Elocution Telugu	13	Singing Solo - Boys
3	Elocution Tamil	14	Singing Solo - Girls
4	Shipwreck	15	Singing -Group
5	Quiz	16	Dance Solo - Boys
6	Turncoat	17	Dance Solo - Girls
7	Adzap	18	Dance -Group
8	Essay writing English	19	Mimicry
9	Essay writing Telugu	20	Skit
10	Essay writing Tamil	21	Mime
11	Drawing		.

Table 5.18 Outside accolades prize details of the institute

Prize won	Premier Institutions		Non-Premier Institutions	
	Technical	Non-Technical	Technical	Non-Technical
I	Rs.1000	Rs.1000	Rs.750	Rs.750
II	Rs.750	Rs.750	Rs.500	Rs.500
III	Rs.500	Rs.500	Rs.250	Rs.250

NSS Activities

Blood donation Camp: Every year R.M.K.Engineering College and Rotary club of Gummudipoondi Industrial city organizes blood donation camps at R.M.K Engineering College.

Youth Red Cross Society : Youth Red Cross Society, has been established with the twin objective of evoking awareness towards social responsibilities among the youth and involving the energetic section of the society in the voluntary and responsible programs of Indian red cross society.

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Graduates feedback:

Feedback on the quality of teaching, placement activities, trainings provided and other facilities is collected biannually during the alumni meetings and analysed. The different modes in which data and feedback are collected from alumni:

- During the alumni meets

- During the graduation day
- Online feedback by mail

Corrective measures are taken as per the feedback to improve the various institutional processes.

Employer survey:

Departments obtain feedback from the employers through a structured questionnaire. This is used to obtain information about the performance of the employed students which further helps in planning content to be delivered beyond the curriculum. The different modes in which data and feedback are collected from employers:

- During placements
- Through LinkedIn

Actions Taken:

The feedback instigated various initiatives.

- Mock interviews are conducted by the industry experts.
- Special lectures from industry and academia are conducted regularly.
- Guidance on entrepreneurship is provided.
- BEC training to enhance the communication skills of the students.
- Change in the Training Programmes based on Industry requirements.
- Creative thinking programme introduced based on the requirements in Creative and Industry Designing.
- Stepping Stone programme which is Engineering Orientation programme to get awareness about their core areas, opportunities in Industries, etc.
- Campus Readiness Programme: to give awareness to the students to know about the Campus interview preparation starting from Aptitude, Group Discussion, Technical and HR Interview preparation.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/materials brought out by the students during the previous four academic sessions

Yes, the institute encourages students to publish materials like wall magazines, college magazine etc.

- Students contribute articles to 'RMKANICA' - an annual college magazine. Scrutiny of the articles, selection of articles and proof reading are done by the student representatives of the college magazine committee.

- Biannual “RMKEC Newsletter” are released by the institution that highlights the achievements of the students and faculty members and showcase special activities conducted during the term like Guest Lectures, Training Sessions, etc.
- An online newsletter “*SUNERGIA*” of the RMKEC Alumni Association is published every year, in which reports of the recent happenings, developments of our college, and achievements of present and future alumni members are posted.
- In the preparation of the prospectus of the institution, student representatives are involved.
- Students are encouraged to create blogs and websites which serves a platform for them to share their ideas and views on various social issues.
- The RMK Store is a website where students of the RMK Group of Institutions can upload their mobile apps for the internal review of faculty members and students of the RMK group. The access to the website is provided to selected visitors, guests and other organizations to review the apps. The students are encouraged to upload iOS and Android apps, screen shots and related documents to RMK store website and Play store.

Table 5.19 Details of iOS and Android Apps uploads by students in RMK store website.

No. of Students Trained in iOS	Android Apps				iOS Apps				No. of apps in App Store (Approved)
	No. of Students uploaded apps in RMK Store	No. of apps in RMK Store	No. of Students uploaded in Play Store	No. of apps in Play Store	No. of Students uploaded apps in RMK Store	No. of Apps in RMK Store	No. of Students uploaded in App Store	No. of apps in App Store (Waiting for review)	
28	13	8	2	1	5	2	5	0	2

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes, the college has a class committee comprising of students from each class. Four representatives are selected from every class having equal representation from boys, girls, day scholars, hostellers, Tamil and Telugu speaking community. Class committee is formed every semester. Counselors select the members with their consent.

- Quality Circle is a voluntary committee established in the College, will meet periodically to solve the issues / share the ideas that would develop the Department.

- Alumni association is an active community which meets every half a year at a venue outside the institution to help every one of them attend the meeting. Office bearers are elected and they deliver their responsibilities during their tenure.
- Funding is done by the management for various activities. Distinguished Alumni also help in the funding for some activities.
- Two scholarships are awarded to the meritorious students by the alumni.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them organized by students

Student representation is the pillar of any institution. All organizing committees for seminars, symposia, conferences and workshops are headed by student representatives. There are various **academic and administrative** committees involved in the overall functioning of the institution with student participation. The committees are listed below.

- Library Committee
- Alumni Association
- Class Committee
- Students' professional societies
- NSS
- IEDC
- Literary Club
- Cultural Committee
- Sports committee
- Quality Circle
- Other Committees

5.3.7. How does the institution network and collaborate with the Alumni and former faculty of the Institution?

- Our institution collaborates and networks with the Alumni through the alumni association, details as given in section 5.1.14.
- Former faculty members of the institution working at various industries, visit the institution regularly and deliver guest lectures.
- They help the students in obtaining permission for industrial visits, campus tours, internship, etc.

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

VISION OF THE INSTITUTION

- To be the most preferred destination in the country for imparting education in Engineering, and its allied fields, at the undergraduate, postgraduate and research levels.
- To transform learners into achievers at the global level with the right attitude towards changing societal needs.

MISSION OF THE INSTITUTION

- To develop the resources and infrastructure not only to meet the statutory requirements but also far exceed them to become a preferred destination for learners by providing a conducive ambience for the teaching - learning process.
- To develop in the learners high personal and professional ethical values, technical competence and a spirit of innovation and entrepreneurship.
- To develop in the learners a desire for higher learning and research.
- To interact with industries and other organizations to provide for transfer of knowledge and know how.
- Equip the students to face the global challenges successfully.

Governance:

Thiru. R. S. Munirathinam, Founder-Chairman of R.M.K Engineering College is well known for his philanthropic attitude and public service as an elected member of the State Assembly of Tamil Nadu. He envisioned a technological revolution and committed himself to establish an institution, to foster technical and higher education. He is a rare breed of educationalist, to whom quality is the way of life.

The institution functions under the Lakshmikanthammal Educational Trust founded by Thiru.R.S.Munirathinam, its Chairman and Mr.R.M.Kishore, the Vice Chairman is a Trustee. The R.M.K. Engineering College established in 1995 is managed by a Governing Council consisting of distinguished members of the Management, Eminent Industrialists, Academicians, and Educationalists.

Distinctive Characteristics of the Mission Statement:

Sl. No	Distinctive characteristics	Mission statement defining the characteristics
1	Addressing the needs of the society	To become a preferred destination for learners by providing a conducive ambience for the teaching - learning process : The main stakeholders - parents and students, look for a preferred institution which imparts excellent academic education, discipline and industry orientation and that provides placement and career opportunities to all students.
2	Addressing the needs of students' it serves	To develop in the learners high personal and professional ethical values, technical competence and a spirit of innovation and entrepreneurship: Students are in need of excellent academic education developing their technical skills and updating them with the recent technological trends. Accordingly, due importance is given to develop the innovation and entrepreneurship skills of the students. Students are given counselling regularly on self-discipline, an ethical value, so as to have a strong foundation for their lifelong learning and long term career growth.
3	Institutions' tradition and value orientations	To equip the students to face the global challenges successfully: The institution strives to imparting life skills, ethical values, the creating a culture of continuous learning and disciplined behavior to the students in order to meet the needs and challenges in their profession. The Alumni of the college have always established the fact that RMK students perform well at work as well as research in India and abroad alumni.
4	Vision for the Future	To develop in the learners a desire for higher learning and research; To interact with industries and other organizations to provide for transfer of knowledge and know how: The institution encourages students to go beyond the syllabus to build collaborative and inter industrial links to enable them for widening their participation in higher learning, job and job creation. While planning for the future, the college is committed to improving opportunities for students by more extensive interactions with industry and by mobilizing the necessary resources to introduce innovative courses of study to suit the changing needs of the world.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

The Institution excels in academics for over 20 years due to the continuous review and improvement of Quality Policies and plans. The top management, Principal and Faculty have roles in the design and implementation of the Quality policies and plans in the Quality Management System (QMS). Some of the key roles are as follows:

Top Management

- Guidance in implementing the Vision, Mission and Values of the Institution.
- Formulating Long term strategic planning and direction to college development.
- Advice in introducing new programs, student intake, maintenance and expansion of infrastructure and other strategically important matters.
- Providing high quality learning opportunities to students, student welfare schemes and the required facilities and funds.
- Coordinating inter-institutional activities at the state and national level, sharing of knowledge and experiences to fulfill the Mission of the college.
- Convening the institution's Governing Council meeting and taking their feedback, inputs and suggestions in decision making to promote the effective delivery of academic and support services to students.

Principal

- Assisting the Management in making policies and taking decisions on setting academic and administrative goals and achieving them.
- Carrying out the mission, goals and the policy of the Governing Council giving top priority for discipline and quality education.
- Making short term and long term planning and setting out the priorities.
- Looking after the overall administration including preparation of the annual budget and monitoring the progress and development of the college with the aim of raising the status of the institution as an institute with high potential and excellence.
- Managing and monitoring the academic activities, overall discipline, growth and development of the college and conducting University Examinations.
- Coordinating the activities with the Anna University, AICTE, State Government and NBA / NAAC for Affiliation, Approvals, Admissions and Accreditation respectively and other related works.
- Interacting with industries, leading institutions, research organizations etc. in the

National and International level and signing MOUs.

- Arranging for the Admission of students under Govt./Management/NRI Quota.
- Appearing for Legal and Judicial matters.

Head of the Department

- Assisting and reporting to the Principal on all matters with respect to academics, administration, discipline, research and students support services.
- Planning and monitoring and the syllabus coverage, internal tests, opening and closing of semesters and submitting the Department's annual budget to the Principal.
- Coordinating the activities of the faculty members and supporting staff in the department to offer quality education to the students and to achieve the desired goals of the college by convening regular departmental meetings.
- Identifying and encouraging the faculty to do research projects through various funding agencies, to carry out consultancy and to publish papers in National and International Journals having high impact factors.
- To guide faculty members in maintaining appropriate documentation as stipulated by NBA/ NAAC / Anna University / ISO for Accreditation and inspection and suggest corrective measures.
- Judging the performance of each faculty in the department and submitting the assessment report to the Principal every year along with his/her self-assessment form.
- Identifying, counseling, motivating and guiding students by encouraging them to pursue for higher growth.

Faculty

- The teaching load will be allotted by the HOD in accordance with the area of specialization of each Faculty.
- In addition to the teaching, the Faculty Member should take additional responsibilities as assigned by HOD / Principal, academic, mentoring, organizing co-curricular or extra-curricular activities, Research and consultancy work.
- Every Faculty Member should maintain the attendance record and personal file for all students which is monitored periodically by HOD/Principal.
- Whenever a Faculty Member intends to take leave, the Faculty Member should get the leave sanctioned in advance and with proper alternative arrangements made for

class / lab / invigilation. In case of emergency, the HOD or the next senior faculty must be informed with appropriate alternative arrangements suggested.

- Every faculty should extend full co-operation in organizing events / functions in the department or college level.
- Each faculty should fill up the proforma for self-appraisal and submit to the HOD every year.

6.1.3. What is the involvement of the leadership in ensuring?

Involvement of the Leadership in ensuring the policy statements and action plans for fulfillment of the stated mission

- Setting up the state of the art- laboratories by constantly upgrading the technologies and infrastructure.
- Encouraging and motivating faculty members to adopt innovative methods for enhancing the teaching-learning process.
- Organizing Faculty Development Programmes (FDP), workshops and seminars to train the faculty in recent technological trends.
- Organizing value added courses and soft skill development programmes for students to enhance their employability potential.
- Arranging Industrial visits and guest Lectures by experts from industries.
- Organizing seminars through the Innovation and Entrepreneurship Development Cell (IEDC) to motivate and guide students to venture into independent business and to develop their entrepreneurial skills.

Involvement of the Leadership in ensuring the formulation of action plans for all operations and incorporation of the same into the institutional strategic plan

The HOD's discuss their action plans with the principal who in turn, through the college Management, formulates the action plan for the college

- In setting up new laboratories.
- Arranging Industrial Visits, Guest Lectures and Value Added Courses.
- Organizing FDP's, workshops and seminars for faculty.
- Motivating and encouraging faculty to do research and development activities.

Involvement of the Leadership in ensuring the Interaction with stakeholders

- Parent-teachers meeting to get feed-back on the Teaching-learning process and to discuss their wards performance.
- Regular faculty meetings to motivate and implement the new innovative methods

for teaching-learning process.

- Periodic meeting with industry experts for MOU's, Centers of Excellence (COE's), and arranging industry sponsored courses for faculty and students.
- Annual Alumni Association Meeting to get suggestions for improvement in the campus life of the students and to invite them to have more fruitful interactions with the students to guide and motivate students in the campus.

Involvement of the Leadership in ensuring the proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders

- In the beginning of every semester, the Principal and the HOD's discuss and identify the areas of improvement needed in academics, areas of current research, the available funding agencies, industry sponsored value added courses for students, activities planned by the various Student's chapters and COE's to finalize on the action plan for the semester.
- The decision is made by prioritizing the needs based on the requirements from industry, feedback from alumni and parents.
- Principal, HOD's and Research Coordinators of the departments arrange visits to various research labs to improve collaborative research and funded project activities in the college.

Involvement of the Leadership in ensuring the reinforcing the culture of excellence

To reinforce the culture of excellence, our college has established the following activities:

- Develop a well-planned academic calendar to be followed by all the departments.
- Fix a target for each batch and subject at the beginning of the semester and work to achieve the target.
- A detailed result analysis student-wise, subject-wise, class-wise, year-wise and faculty-wise is done for every Internal Assessment and University Exams to identify the root causes for any deviation from the target by Principal, HOD and Academic Coordinator.
- Organize special classes for needy students to improve their performance.
- Special counseling for students to make them perform better academically and encourage and guide them to participate in paper presentations, project contests and other co-curricular and extra-curricular activities.
- Organize training programmes for the faculty members to improve their class room interactions.
- Organize value added courses, soft skills and placement and training for students to improve their placement opportunities.

- Awards for excellence of faculty members for achieving 100% academic results, and Best Faculty award.
- Various awards like Best Student award by corporate companies, Best outgoing student award, Best student award for academics by management and University Rank Holders.
- Based on the academic results off every semester top performing students are awarded with books of their choice.
- Students are significantly rewarded for maintaining 100% attendance, and winning prizes from other colleges.

Involvement of the Leadership in ensuring the champion organizational change

- A Student committee is formed with two members in each class and a meeting is convened by the Principal to discuss and decide on the changes that need to be done.
- Class committee meetings are convened by the class committee convener and Academic Coordinator at regular intervals to get feedback and suggestions from students and to ensure a smooth implementation of the action plan.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

- Internal and External auditing based on ISO 9001: 2008 framework are regularly conducted to improve the process followed.
- Weekly HOD's meeting with Principal to review Action plan.
- Continuous assessment for students every month conducted by the exam cell of the college.
- Review of students' projects by industrial mentors through the Digital COE and internships.
- Conduct of class committee meetings to get suggestions from students and to discuss their performance in internal assessments and university examinations.
- Continuous Assessment of teachers through Online Student Feedback system.
- Annual performance appraisal system for faculty members by the HOD / Principal through a transparent system based on performance.
- Technical competence of the students is evaluated by intra-department tech club and various professional society activities.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

- Every faculty is responsible for the academic excellence of the students in the subject he/she handles.
- A faculty is assigned as class in-charge for every class and is responsible for the academic performance of the class.
- Every batch is allocated a Year Coordinator, who is responsible for the academic performance of the entire batch till they graduate. The Year Coordinator's report and discuss with the respective HOD's the strategies to be followed for the overall performance improvement of the students.
- Every faculty is allocated a set of 20 students for mentoring who is responsible for the overall development of these students.
- All Faculty are also involved in organizing various events at department level and at college level.

6.1.6 How does the college groom leadership at various levels?

The college encourages leadership skills at various levels from student, faculty, HOD to Principal.

- Students organize: National level Technical Symposium, Intra-Department Tech club activities, events conducted under the Professional Society and College level cultural, sports etc.
- Students are also members in various committees like: Class committee, Students committee, Tech Club, and Department Association
- Faculty members organize various events like: Conferences, FDP's, workshops, seminars, Industrial visits and Guest Lectures, Professional Society activities, Tech club events and Induction program, Graduation day, College Day and Sports day
- Faculty members: Are mentors, class advisors and Year Coordinators, Coordinators for ISO, NBA, NAAC, NIRF, CRC, COE / SPOC and help in the smooth conduct of Internal assessments and Anna University Examinations.
- HOD's are responsible for the planning and implementation of the action plan in their department to achieve the target set and take responsibilities as Coordinators at the institution level in organizing various college level activities.
- Principal is responsible for implementing the action plan by all the departments to achieve the vision and mission of the college.

6.1.7 How does the College delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

- The college has a decentralized governance system and the HOD's are given complete authority in both administration and academic activities.
- The budget prepared by the HOD is approved by the management and the Principal in the beginning of the semester and the HOD's have full autonomy on the accrued expenses.
- HOD's are also given full academic freedom in devising strategies to achieve their goals.

6.1.8 Does the college promote a culture of participate management? If 'yes', indicate the levels of participative management.

Yes.

- Students participate in class committee meetings to give suggestions for improvement and to identify the assistance needed in academics, co-curricular and extra-curricular activities.
- Faculty members participate in the weekly department meetings convened by the HOD's to discuss various academic activities, plan and review the action plan.
- HOD's participate in the weekly meeting convened by the Principal to review the action plan, evaluate the results achieved and take decisions on the academic and administrative matters.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Yes.

The quality policy and objectives are published in the QMS Apex Manual of the college. The Quality Management System (QMS) and the quality policy are created and developed by the Principal, HOD's, Faculty Members and the ISO Management Representative which is approved by the top management.

The foundation is ISO 9001:2008 ensured by DNV-GL, and it reviews the quality policy every year by external audits. The top management of RMKEC reviews the QMS at least twice a year, during a meeting specifically called for the same and is always preceded by an internal audit.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

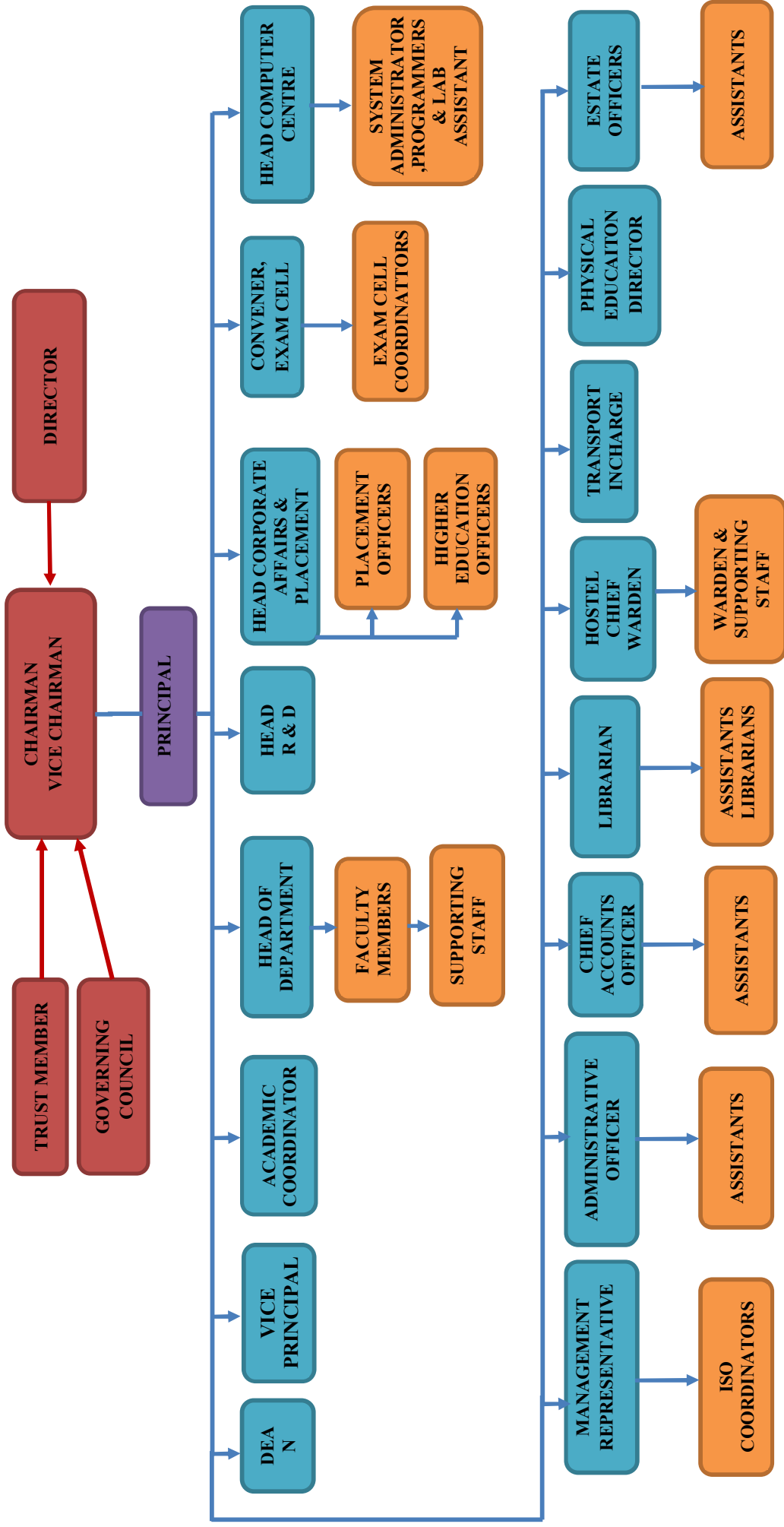
Yes.

The Principal, HOD's and academic coordinator plan the academic activities, consultancy works, MoUs, innovations in teaching learning procedure and so forth.

- Based on this plan, the academic calendar for each semester is prepared by the academic coordinator which is approved by the management.
- Value added courses are identified and offered at the department level and training and placement cell identifies the college level value additions to be provided for students as per the requirements of industry.
- To improve the programming skills of both students and staff, placement cell organizes Enhancing Programming Skills (EPS) programme every semester.
- The institution has Higher Education Cell that organizes programmes related to preparation and opportunities for pursuing higher studies.
- To develop entrepreneurial skills and enhance innovative product development, e-cell and i-cell are formed with the help of Alumni students and activities are carried out through the IEDC cell.

6.2.3 Describe the internal organizational structure and decision making processes.

The following is the organizational chart of the college.



6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following Teaching & Learning, Research & Development, Community engagement, Human resource management & Industry interaction

Teaching Learning, Research and HR administration are dealt with by QMS of ISO of the institution.

Teaching & Learning:

- Innovative teaching methodologies using PowerPoint Presentation, Video Lectures (NPTEL, Spoken Tutorial & Web Resources), Online Programming web platforms etc. are used for improving the Teaching Learning process.
- Industrial Visits and Guest Lectures by industry experts are arranged.
- Students are motivated to take seminars in the allotted session every week.
- Intra department paper presentation and project contest are organized for students through the Department association, Tech Club and Student chapter of Professional society.
- Students are also encouraged to participate in co-curricular and extracurricular events organized by other institutes.
- Students are grouped into various Centers of Excellence (CoEs) and specialized training and projects are allocated to make them technically competent and face the global challenges successfully.
- Students are also encouraged to undergo inplant training and internships in industry to get an opportunity to solve real world problems.
- To make all the students involve effectively in the Teaching Learning Process, a mentoring system is in place, wherein around 20 students are allotted to a faculty member who personally guides, motivates and monitors the student participation.

Research and Development:

- The Departments CSE, ECE, EEE, IT, Maths & Physics are recognized research Centre by Anna University to conduct M.S./Ph.D.programmes.
- The college sponsors all faculties for presenting their paper in National / International Conferences and to attend FDP / Workshops / Seminars.
- The library is well equipped with many online E-Journals for literature collection to encourage research among students and faculty.
- The college motivates the faculty by sponsoring funds to apply for patents, R&D grant, travel grants, etc.
- The students are encouraged to develop and implement in house projects.

Community engagement:

- The college regularly organizes blood donation camp through NSS.
- The management of the college generously serves the community / village near the college.

Human Resource Management:

- The HOD identifies the HR requirement and informs the Principal who in turn consolidates the requirements from all departments and publishes in the daily newspaper. A selection committee comprising of the Principal, Academic Coordinator, HODs and Senior Professors of the institution is formed to interview the shortlisted candidates.
- Service conditions, Leave Rules, Code of Conduct, Service Benefits and Performance Appraisal are clearly defined.

Industry interaction:

- Industrialists are part of Governing Council.
- The college has signed MOU's with various industries.
- Industry Sponsored COE's Laboratories.
- Invited Guest Speakers and Industrial Visits from Industry.
- Faculty Trained by Industry.
- Students Internships and inplant training by Industry.
- Consultancy works by students to Industry.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

The Principal acts as a buffer between the management and departments. The Principal convenes weekly HOD's meetings to review the action plan and to discuss the feedback got from class committee meetings, faculty meetings, student meetings, industry, alumni, and parent interactions.

Feedback from students:

- Students' feedback on value added programmes, guest lectures, seminars, industrial visits and training programs is collected after each programmes by using feedback forms. The students' feedback is analyzed and necessary corrective actions are under taken.
- Two class committee meetings are conducted every semester to discuss the

corrective actions to be taken to improve their performance.

- In the middle of each semester an online students feedback for each course is taken to analyze the efficiency of Teaching Learning Process. This feedback is analyzed and communicated to the faculty by the HOD to suggest corrective measures.

Feedback from Alumni:

- Feedback is collected from Alumni during their visit to the campus for Guest Lectures, Mock Interviews and Project Mentoring.
- Feedback is also collected during the Graduation Day and Alumni Association meeting to get suggestions for improvement.

Employers' feedback:

- The Training and Placement Cell collects the feedbacks from employers where the students are placed.

Industry feedback:

- Valuable feedback from industry experts who visit the campus for campus recruitment, invited lectures and mock interviews is collected to identify the value added trainings required for the students.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

- Awards for excellence to faculty members for achieving 100% academic results and Industry Sponsored & Professional society Best Faculty award are presented to deserving members of the faculty.
- Faculty members participate in the weekly department meetings convened by the HOD's to discuss various academic activities, plan and review the action plan.
- HOD's participate in the weekly meeting convened by the Principal to review the action plan, evaluate the results achieved and take decisions on the academic and administrative matters.
- Faculty members are also encouraged to pursue Ph.D. programme by providing them with internet, laboratory and library facilities.
- Non-teaching staff are motivated to undergo diploma / part time B.E. / B.Tech./ part-time M.E./M.Tech. Courses and also skill oriented training programmes.
- Management encourages and appreciates the involvement of all staff members by providing free transport and food.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

Resolutions made by Management Council and the status for the year 2016 – 2017:

Sl. No	Resolutions made	Status of Implementation
1	To give students of all branches training in programming as required by the industry.	<ul style="list-style-type: none"> • Enhancing Programming Skills (EPS) Program initiated with a Convener, Coordinator and all faculty members of CSE and IT branches. • All faculty members are expected to get trained and certified in Programming by industries. • In addition to Anna University curriculum, students of all branches are given training in Programming by the certified faculty members.
2	To encourage students to carry out Innovative projects leading to patenting and initiating startup companies.	<ul style="list-style-type: none"> • Focus on Innovation & Entrepreneurship Development (IEDC) Cell activities. • Establish Micro Small and Medium Enterprises (MSME) Cell to get funding for startup companies based on innovative projects done through IEDC. • COEs set target for creating and patenting innovative products. • Conducting awareness sessions on patenting procedures. • Intra department competitions established with increased first prize money of Rs.10,000/- .
3	To promote research more project proposals are to be submitted seeking funds from AICTE, UGC and various other agencies.	<ul style="list-style-type: none"> • Series of awareness sessions on Research Proposal preparations and submissions. • Submitted Proposals to AICTE after internal reviews. • Meeting with Director and Scientists of CVRDE of DRDO followed by submission of R&D proposals.
4	To define the roles of Year Coordinator for better management of the departments.	<ul style="list-style-type: none"> • Year Coordinators nominated for all departments and all years. Orientation was given to all of them on their roles and responsibilities.

5	To plan the visits of Principal, HODs and Professors to various companies to take inputs and understand best practices required to be implemented.	<ul style="list-style-type: none"> • Visit of HODs/Professors to corporate (recruiters) like WIPRO, CTS, TCS (Cochin), IBM (Bangalore), Johnson Controls (Pune) etc. to understand their expectations and plan the Teaching & Learning processes. • Visit to VIT, Vellore by Principal and HODs. • In all the visits, reports prepared by all participants are consolidated and conveyed to Management Council. Steps are taken to implement the good practices that impressed the visiting team.
6	To establish new COEs based on the advice from industry, job opportunities and findings from visit to other institutions.	<ul style="list-style-type: none"> • Established new COEs in the areas of Information Security, Automotive Electronics, Embedded Systems, Telecom etc.
7	To establish Business Unit (BU) Training and Hiring Model.	<ul style="list-style-type: none"> • Established BUs with Single Point of Contact (SPOC) for each BU; (eg: PLM, Telecom, Mobility, Big Data Analytics, and Information Security). • Students selected / recruited for BUs of companies receive training in the 8th semester on campus, based on curriculum and with participation by the company. (eg: CTS, iNautix, Wipro Telecom, IBM). • Students are getting selected in prefinal year for specific BU and trained on campus, based on curriculum and with participation by the company. (eg: Telecom, PLM, Mobility, Big Data Analytics etc.).
8	To increase focus on student mentoring	<ul style="list-style-type: none"> • More focused interaction of mentors with students. • Formal periodic reporting of mentors to HODs about their student's progress.
9	To increase focus on eLearning	<ul style="list-style-type: none"> • Students are encouraged to take up the Online NPTEL Courses by IIT Mumbai. • NPTEL coordinator at institution level and department level is appointed to ensure the

		registration, learning and certification of students.
10	To improve the orientation of first year students for engineering	<ul style="list-style-type: none"> • Awareness sessions are arranged for first year students in their respective departments by the respective HOD's. • Allotted second year student counselors meet first year students of respective branches and interact with them and prepare them to join the department in the second year with more confidence. • Exhibition of engineering projects done by first year students to create an engineering mindset and approach.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes

- RMKEC affiliated to Anna University; Management has made a policy to continue with affiliation in view of the various benefits like top academic performance and more number of university ranks.
- However, there have been suggestions from industry to make the institution autonomous as it will enable the curriculum design in line with industry requirements.
- Anna University is planning to give 30% of curriculum design (no. of subjects in 4 years) as autonomy (as electives) of curriculum design and evaluation to interested institutions.
- RMKEC is preparing to request Anna University for such facility.

6.2.9 How does the Institution ensure that grievances /complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stake holder relationship?

- Two class committee meetings are conducted every semester to discuss grievances and complaints if any. The class committee convener is required to address the grievances of the students by taking corrective actions and reporting to HOD.
- Academic Coordinator also convenes the class committee meetings to identify any grievances or complaints.

- Anti-Ragging committee is constituted to prevent ragging inside the campus.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

Nil

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?

Yes. Refer 6.2.5

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

- The college also motivates all non-teaching faculty to pursue their part-time M.E. program or other career advancement programs. They are also given additional skill development trainings.
- Motivating the faculty to do Ph.D. program.
- Almost all the faculties are pursuing their Ph.D. and there are 60 Ph.D. holders currently working in our organization. Some faculty members are acting as Research Supervisors in various reputed Universities.
- Facilitates faculty members to get trained by industries in latest technological trends.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

- Promotions and incentives are given to both teaching and non-teaching faculty after completion of their Ph.D. / M.E. program.
- Faculty members undergoing career advancement programs are immediately recognized and given suitable weightage in their career.
- Sponsoring faculty participation and presentation of research papers in conferences and journals.
- All faculty members are members of professional societies such as CSI, ISTE, IEI, IEEE, ISOI etc. and are encouraged to organize and participate in these professional

society events.

- The college encourages faculty members to organize FDP's, Guest Lectures, Workshops, Seminars, Workshops and Conferences by sponsoring them.
- Sponsorships for faculty to attend FDP programs, Workshops, Seminars, Conferences, Personality Development Programs, Skill upgradation and Effective teaching methodologies outside the college.
- Facilitates faculty members to conduct industry sponsored training programs in the campus e.g. Infosys Campus Connect, WIPRO Telecom, WIPRO PRP, Virtusa Polaris etc.
- Analysis of student feedback and providing advice and support to faculty members to improve their teaching skills.
- Faculty members who make significant achievement like 100% academic results are appreciated.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The format of the 'Performance and Potential Assessment' form is designed after many discussions with Principal, HOD's and faculty members. The form is divided into four parts: Academic Performance Part, Research/Publications/Project, Institutional Development and Academic Leadership and finally Assessment by HOD for staff / Assessment by Principal for HOD.

Part A, Academic Performance Assessment includes the student's internal assessments performance, university examinations performance and student's feedback for the course the faculty handled. This part also gives weightage for the Refresher Courses/ FDPs / Other Training Courses attended by faculty and the membership details in Professional societies.

Part B, Research/Publications/Project gives weightage for publications in National/ International Journals, Conferences, Books Published, Conferences / workshops organized, On-going and completed Sponsored projects, Consultancy projects completed and Research guidance activities done.

The Part C, Institutional Development and Academic Leadership takes into account the various responsibilities taken by faculty on departmental and college level activities, Special Lectures given, Awards/Honors/Recognitions received and their role in University / Govt. bodies as panel members or as chairs.

The Part D, which is the Assessment of staff by HOD / Assessment of HOD by Principal considers Technical Knowledge, Academic results, Teaching Ability and class control,

Punctuality, Regularity to Work, Communication Skills, Mentoring Ability, Contribution to improve placement & Training activities, Control of General Discipline of students, Ability to get along with people (Team work), Ability to comply with instructions, Commitment to the Institution & to the Department, Ability to comprehend the situation & problem solving skills, Organizing capacity of events and General Attitude.

This shows that all the activities by the faculty are captured in the self-appraisal form which is evaluated and reviewed by the top management at the end of every academic year. This helps the faculty to perform a self-evaluation in the current academic year and prepare, plan and work accordingly in the forth-coming academic year.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

- The faculty has an opportunity to identify his/her strengths and weakness in the parameters used in the self-appraisal form. (Refer 6.3.3)
- Enabling all faculty members to set a benchmark for improvement in all the parameters mentioned in self-appraisal form.
- Improving participation in organizing and attending FDP's, Workshops, Seminars and conferences.
- Implementing interactive and innovative teaching methodologies.
- Willingness to take up more administrative responsibilities in the department and at the college level.

The outcome of the review of the self-appraisal of each faculty member is communicated by HOD to the faculty and areas of improvement needed and suggestions for corrective measures are given.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

The following are few of the welfare schemes available for the teaching and non-teaching staff with the percentage of faculty who has availed the benefit in the last four years:

- Free Transport and Food - 100%
- Maternity Leave for Women Faculty - 1%
- Employee Provident Fund (EPF) - 100%.
- Gratuity - 100% (Any faculty who is relieved from service with more than 5 years of experience.)

- “On Duty” for attending FDP’s, workshops, conferences and other Anna University examination duties -100%
- Sponsorship for attending FDP’s, conferences, workshops and seminars - 100%
- Fee Concession for wards admitted in School / College of RMK Group of Institutions - 3%
- In-Campus hospital with a male and female doctor with 24 x 7 Ambulance facility - 100%
- ATM facility - 100%
- Staff Quarters / Residential tutors with monetary benefit - 4%

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

- The welfare schemes for the faculty as listed in 6.3.5 is a proof of the measures management is taking for faculty retention.
- The overall environment with a fine cooperation spirit and a dedicated management team has attracted and retained a good number of eminent faculty members.

6.4. Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

The Chief Accounts Officer, Senior Accounts Officer and many Accountants of the Accounts Department are involved in the Financial Management of the college. Further Lakshmi Kanthammal Educational Trust conducts review of all transactions maintained by the Accounts Department. The activities of the Accounts Department are stated as follows:

Chief Accounts Officer:

- The Chief Accounts Officer is the overall in-charge of accounts function including finalization of annual accounts, watching of fees payment by students, liaison with the Bank, Auditor and Management.

Senior Accounts Officer:

- Checking all bills, getting the approval of appropriate authorities, arrangement of payment, checking of accounts, signing of receipt for fee payment, preparation of consolidated income and expenditure statement and all routine matters connected with accounts.

Accountant:

- Maintenance of accounts in Tally relating to the Trust reconciliation of bank accounts, reconciliation of inter branch accounts, and Trustees and Associates loan accounts.

- All receipt and payments duty in Tally preparation of monthly explore and receipt statement, bank reconciliation, maintaining of all bills/ vouchers of RMK Engineering College.
- Receipt of fee payment in the form of Demand Drafts by students, preparation of remittance of Demand Drafts and cash into bank account, periodical updating of receipt of fees.

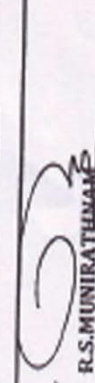
6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

- Regular conduct of internal audit once a month and external audit once a year.
- The last audit report was released by June 2016.
- There are no major audit objections.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.


- Lakshmi Kanthammal Educational Trust under which the college functions are responsible for the continuous development of various infra-structural investments.
- The other main sources of funding comes from the tuition fees collected from students. Additional nominal fee is collected for Food and Transport facilities provided.
- Funds through Research Proposal Schemes and MODROBS are also utilized for the modernization of laboratories.
- The college management also invests on infrastructural developments every year by constructing new buildings and purchasing new equipment's.
- Loans from various banks are also utilized for college development activities.

R.M.K. ENGINEERING COLLEGE		INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2015	
EXPENDITURE		INCOME	
To	Rs.	By	Rs.
Advertisement		Fees Collections	54,26,41,950
Audit Fees	1,51,76,340	Bank Interest received	29,16,334
Bank Charges	9,57,869	Grants Received	11,56,500
Bank Interest paid	19,24,535	Other Income	53,50,082
Books & Periodicals	6,17,51,782	Excess of Expenditure Over Income	32,31,167
College & Sports Day Expenses	28,38,558		
College Maintenance	69,23,024		
Consultancy Charges	2,38,76,944		
Electricity Charges	3,28,083		
Finance Charges	1,41,89,169		
Garden Expenses	15,04,479		
General Expenses	22,85,505		
Hostel Expenses	63,51,930		
Insurance	9,74,802		
Membership Fees & Subscription	3,00,468		
Mess Expenses	6,66,112		
Postage & Telegram	2,09,13,394		
Printing & Stationery	1,79,272		
Rates & Taxes	30,86,188		
Repairs & Maintenance	8,36,020		
Research & Development	54,29,918		
Salary and PF	18,92,191		
Staff Welfare	28,45,29,534		
Telephone & Internet Charges	3,48,06,258		
Travelling & Conveyance	36,50,956		
Vehicle Maintenance	17,12,885		
Depreciation	1,77,51,657		
	4,04,58,160		
	55,52,96,034		
			55,52,96,034



R.S. MUNIRATHNAM

 Trustee



R.M. KISHORE


 Trustee

Dr. ELVINE CHANDRA SOBIE, M.E., Ph.D.

 Trustee

For SELVAM & SUKU

 Chartered Accountants



 Partner



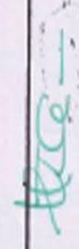
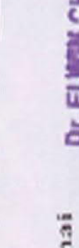
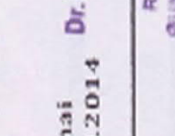
R.M.K. ENGINEERING COLLEGE

 R.S.M. NAGAR, KAVARAJPETTAI - 601 206.

 GUINDIPOONDI TALUK, THIRUVALLUR DIST.

Criterion VI: Governance, Leadership and Management

UNIT: R.M.K. ENGINEERING COLLEGE			
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2014			
EXPENDITURE	RS.	INCOME	
To Advertisement	1,44,41,835	By Fees Collections	50,78,72,000
Audit Fees	9,46,633	Bank Interest received	29,11,928
Bank Charges	13,84,047	Grants Received	34,39,925
Bank Interest paid	4,22,80,590	Other Income	40,62,875
Books & Periodicals	17,82,698	Excess of Expenditure Over Income	1,00,25,743
College & Sports Day Expenses	52,67,220		
College Maintenance	2,83,05,376		
Consultancy Charges	2,12,185		
Electricity Charges	1,19,54,408		
Finance Charges	11,81,491		
Garden Expenses	9,45,303		
General Expenses	49,15,852		
Hostel Expenses	12,37,561		
Insurance	2,58,273		
Membership Fees & Subscription	1,28,798		
Mess Expenses	4,33,64,337		
PF Contribution	59,36,564		
Postage & Telegram	2,03,029		
Printing & Stationery	29,19,038		
Rates & Taxes	8,41,850		
Repairs & Maintenance	72,47,261		
Research & Development	32,62,915		
Salary	25,88,98,410		
Staff Welfare	51,53,788		
Telephone & Internet Charges	40,73,062		
Travelling & Conveyance	36,06,740		
Transport Charges	90,500		
Vehicle Maintenance	3,10,28,169		
Depreciation	4,64,44,543		
	52,83,12,470		52,83,12,470

Chennai 08.09.2014	 Dr. ELWIN CHANDRA MONIE, M.E., Ph.D., PRINCIPAL R.M.K. ENGINEERING COLLEGE R.S.M. NAGAR, KAVARAIPETTAI - 601 206, CHENNAI - 600 031, THIRUVALLUR DIST.	 R.M. KISHORE Trustee	 For. SELVAM & SUKU Chartered Accountants
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Criterion VI: Governance, Leadership and Management

LAKSHMIKANTHAMMAL EDUCATIONAL TRUST UNIT: R.M.K. ENGINEERING COLLEGE			
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2013			
EXPENDITURE	RS.	INCOME	
To Advertisement	2,42,30,030	By Fees Collections	47,68,44,450
Audit Fees	1,73,701	Bank Interest received	15,36,559
Bank Charges	26,21,188	Grants Received	19,68,452
Bank Interest paid	3,46,99,082	Other Income	30,12,368
Books & Periodicals	23,66,513		
College & Sports Day Expenses	18,99,978		
College Maintenance	1,62,62,249		
Consistency Charges	4,05,391		
Electricity Charges	80,31,361		
Finance Charges	6,55,690		
Garden Expenses	12,53,405		
General Expenses	43,11,366		
Hostel Expenses	9,01,403		
Insurance	5,80,652		
Membership Fees & Subscription	2,66,848		
Mess Expenses	4,89,28,328		
PF Contribution	54,76,687		
Postage & Telegram	1,39,724		
Printing & Stationery	49,19,467		
Rates & Taxes	8,37,345		
Repairs & Maintenance	54,29,828		
Research & Development	21,38,266		
Salary	21,11,70,248		
Staff Welfare	34,95,769		
Telephone & Internet Charges	22,35,602		
Travelling & Conveyance	27,98,843		
Transport Charges	37,396		
Vehicle Maintenance	3,68,68,187		
Depreciations OF	4,27,75,995		
Fixed Assets Over Expenditure	1,74,51,288		
AS EXTRACTED FROM THE STATEMENTS OF ACCOUNTS PRODUCED FOR THE PURPOSES OF VERIFICATION AND INFORMATION FURNISHED	48,33,61,829	48,33,61,829	



FOR SELVAM & SUKU
Chartered Accountants
Chennai
23.08.2013 Partner

[Signature]
R.S.MUNIRATHNAM
Trustee

[Signature]
R.M. KISHORELWIN CHANDRA IONIE, M.E., Ph.D.
Trustee
PRINCIPAL
R.M.K. ENGINEERING COLLEGE
K.S.M. NAGAR, KAVARAJPETTAI - 601 208.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

- Additional funds are got through
- Research Proposal Schemes are utilized for the purchase of equipment's for research purpose and other research activities.
- MODROBS is utilized for the modernization of laboratories.
- Loans for overall infrastructural development of the college.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes.

- The institution has established an Internal Quality Assurance Cell based on the ISO 9001:2008 frameworks of Quality Management System (QMS).
- In view of this, the Management has been emphasizing on quality education right from the establishment of the institution. When ISO was introduced the ISO 9001 : 2008 standards based on the 'process approach', the institution was one of the early adopters of this standard and got certified as ISO 9001 : 2008 in the year 2007.

The institutional policy to implement quality assurance is as follows:

- Develop, maintain and regularly update the QMS as the document of all the processes involved in the academic and administrative activities and the forms to implement the processes. All the departments, with the teaching and non teaching faculty carry out the activities as per the processes and forms.
- Various policies implemented for quality assurance are:
- Customer Satisfaction – by collecting feedbacks from students, parents, alumni and industry and actions are taken to ensure that the college satisfies all its stakeholders.
- Internal Audit - Regular internal audits are conducted at planned intervals to checks the effectiveness of the implementation, maintenance and improvement of the QMS.
- Monitoring and Measurement of Processes and Products - Continuous measurement and monitoring of the processes are done to identify appropriate corrective action to ensure conformity of service. For example, monitoring of curriculum delivery, progress of course completion, Internal assessments, and monitoring purchasing

activity are some of the processes.

- Control of Non-Conformity – to prevent and be prepared for deviations and the actions to be taken.
- Data Analysis and Continual Improvement
- Corrective and Preventive Action
- External Audit - The External Auditing is done by DNV GS once in a year as follows:
 - Certification or Recertification auditing (RCA) once in 3 years.
 - Periodic Auditing (PA) once a year in the other 2 years.

b. How many decisions of the IQAC have been approved by the management /authorities for implementation and how many of them were actually implemented?

- All the decisions by the IQAC are made based on the recommendations by the IQAC and the approval of the Management. So, in effect, all the decisions have been approved by management.
- All the decisions by the IQAC, after the approval by the Management, have been implemented.

c. Does the IQAC have external members on its committee? If so, mention any significant contributions made by them.

No. The IQAC does not have external members on its committee. But the IQAC coordinates the External Audit by the certified External Auditors and their audit findings and recommendations are being considered for implementation.

d. How do students and alumni contribute to the effective functioning of the IQAC?

- Feedback by Students through the Class Committee Meetings.
- Online Feedback about the teaching-learning process for each course by Students.
- Feedback from the alumni collected during their visit to the campus or during their Alumni association meetings.

Refer 6.2.5

e. How does the IQAC communicate and engage staff from different constituents of the institution?

- The IQAC has published the QMS and is made available to all departments through the HODs and QMS coordinators.

- The IQAC conducts awareness sessions on the QMS and the processes and forms to all faculty members every year.
- The HOD and departmental level QMS coordinators ensure the effective implementation of the IQAC processes on a day-to-day basis.
- Each department has also been provided a self-check audit checklist for the ISO QMS coordinator so that he/she can conduct an audit within the department to verify the effective implementation of the processes.
- The observations and suggestions of the external and internal auditing are informed to all departments through the HOD.

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If ‘yes’, give details on its operationalization.

Yes.

- As mentioned in 6.5.1.a, the institution has an integrated framework for Quality Assurance called the IQAC cell consisting of
- Quality Management System (QMS), Management Representative (MR) who acts as the representative for the Management in implementing the QMS in all the academic and administrative activities of the institution.
- ISO QMS Coordinators: One coordinator for each department who implements the QMS in his / her department with the support of the HOD and teaching and non-teaching faculty of the department.
- ISO QMS Internal Auditor: One or more auditor in each department where the auditor is formally trained and certified as Internal Auditor who conducts periodic Internal Auditing in the institution as per schedule formulated by the Principal with recommendation by Management Representative (MR).
- All faculty members of the department are involved in the collection, analysis and maintenance of data and implementing the decisions made by the Principal and HOD's.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If ‘yes’, give details enumerating its impact.

Yes.

- The training given to the staff members have been found to be effective in the conformance to the QMS and the improvement in academic performance results.
- Based on the internal and external auditing, it has been found the processes have

been implemented effectively in all the departments. The non-conformance of the processes to the QMS has been found to be minimal. Non-conformances (Major and Minor) and Opportunities for Improvement (OFI) found in the external auditing are suggestions of improvement in current processes and the QMS is being accordingly revised and being implemented.

- The results in various areas like academic performance, placement and faculty development have been found to be improving continuously.

This is largely due to the awareness programs conducted for the faculty in definition and implementation of well-defined quality processes and the continual improvement of the processes.

6.5.4 Does the institution under take Academic Auditor other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?

Yes. As mentioned in 6.5.3

- Based on the internal and external auditing, it has been found the processes have been implemented effectively in all the departments.
- The non-conformance of the processes found by the internal and external auditing to the QMS is analyzed by MR.
- Non-conformances (Major and Minor), Observations and Opportunities for Improvement (OFI) found in the external auditing are suggestions of improvement in current processes and the QMS is being accordingly revised and being implemented.
- Using the Root-cause Analysis, the strengths and weaknesses are identified and remedial actions are implemented.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/ regulatory authorities?

- Some of the mandatory regulatory requirements are
- Central and State Government regulatory procedures including AICTE regulations
- Anna University regulations
- National Integrated Ranking Framework (NIRF)
- Optional requirements which are being considered by the institution:
- AICTE – CII Industry Linkage Survey
- National Board of Accreditation (NBA)

Following are the key requirements of the external quality assurance agencies / regulatory:

Sl. No	Regulatory Body	Requirement	Internal Quality Assurance mechanism
1	AICTE	Infrastructure	QMS Resource Management
		Faculty	QMS Resource Management
		Budgeting and Finance Management	QMS Management Responsibility
2	Anna University (AU)	Infrastructure	QMS Resource Management
		Faculty	QMS Resource Management
		Budgeting and Finance Management	QMS Management Responsibility
		AU Curriculum and Regulations and Compliance	QMS Academic Processes (Teaching and Learning)
		University Exams (as in AICTE and AU)	QMS Academic Processes (Exam Cell)
3	NIRF	Students Development : Career Development	QMS Academic Processes (Students Co/Extra-curricular activities, Training and Placement)
		Research and Consultancy	QMS Academic Processes (R&D and Consultancy)
4	AICTE – CII Survey	Placement and Students training and internship	QMS Academic Processes (Training and Placement)
		Joint Research and Consultancy with industry	QMS Academic Processes (R&D and Consultancy)
		Infrastructure with collaboration by industry	QMS Resource Management

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

- Results Analysis and review of effectiveness of the Teaching and Learning processes; Consideration of changes in teaching and learning processes (eg. more emphasize on eLearning, motivating high performance students for aiming for university ranks).
- Feedback from Students (eg. more facilities for preparation for higher education;

special classes for GATE, foreign language training have been arranged).

- Interaction with industry regarding industry expectations in the curriculum and teaching and learning process (eg. Visit by Principal and HODs to Wipro, CTS, etc and Visit of industry experts to the institution) (eg. Value Added courses by Business Units, emphasize on practical training through establishment of Centers of Excellence); In view of this, improvements were done in Value Added Courses, establishment of Industry sponsored Labs, Introduction and conducting mock AMCAT tests for preparation of Aptitude Tests.
- Review of best practices by other academic institutions (eg. Visit by Principal and HODs to VIT, Vellore).

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The stakeholders as identified by the QMS are as given in the table and the communication of the quality policies and, mechanisms and outcomes are communicated as follows:

No	Stakeholder	Communication Mechanism
1	Students	<ul style="list-style-type: none"> • Communication of Vision, Mission and Quality policies through Display boards, Websites, Academic Calendar etc. • Communication of outcomes i.e. achievements at institution level, achievements by students, updates on institution level facilities, etc through College Website, College magazine and Internal newsletters. • Regular communication by Principal, HOD and Counselor.
2	Parents	<ul style="list-style-type: none"> • Communication through formal events like Fresher's Day, Parents Meetings. • Regular communication of the performance by the wards through counselors. • Communication of outcomes i.e. achievements at institution level, achievements by students, updates on institution level facilities, etc. through College Website and College magazine.
3	Alumni	<ul style="list-style-type: none"> • Alumni Association Meetings and alumni web portal. • Communication of outcomes i.e. achievements at institution level, achievements by students, updates on institution level facilities, etc. through College Website and College magazine.

4	Industry (Recruiters)	<ul style="list-style-type: none"> • Industry academic interactions meet through Placement and Corporate Affairs Group. • Visits by industry representatives to the institution. • Visits by Head of Placement and Corporate Affairs, Principal and HODs to industry. • Communication of outcomes i.e. achievements at institution level, achievements by students, updates on institution level facilities, etc. through College Website and communication from the institution to industry.
5	Collaborating Organizations	<ul style="list-style-type: none"> • MOU signing by Management as organized by Head of Placement and Corporate Affairs. • Regular MOU review meeting between Industry representative and Head of Placement and Corporate Affairs.
6	Society at large	<ul style="list-style-type: none"> • Communication of Vision, Mission and Quality policies through media (eg. newspapers, magazines etc.). • Communication of outcomes thru media and Website, Prospectus etc. • Students' achievements like academic performance, University rank holders, etc. at specific institutional level events like College Day, Graduation Day etc. • Specific Students' achievements like winning of prestigious technical competitions etc.
7	Regulatory Bodies	<ul style="list-style-type: none"> • Submission of reports in the formats as required by the regulatory bodies like AICTE, AU, NIRF etc.

CRITERION VII : INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute Conducts Green Audit of its campus and facilities?

Institute is spread across 60 acres of lush green environment. College has been awarded with the '*Clean and Green Campus*' by the Rotary Club of Chennapatna for very clean, green and beautiful campus. In World Education Summit 2013 under the category of Higher Education-GREEN CAMPUS INITIATIVE, our College has been awarded by public choice. College campus development committee has a landscape consultant, garden supervisors and large number of gardeners. The entire campus has landscaping with green grass, ornamental plants and shady trees making the campus very green and beautiful. Campus development committee takes all possible steps to conserve the plants and promote pollution free environment. College is very proud of this green and pollution-free atmosphere which is conducive for good educational ambience. In 2015, our College has been listed as *one among top 10 beautiful college campuses in India*.



Fig. 7.1: General Outlook of the Campus

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Energy Conservation

- College has class rooms and toilets that are sufficiently ventilated and allow natural light, thus usage of electric lights are minimized.
- Awareness is created among faculty members and students to maximize conservation of energy. The last person to leave the class ensures that the electrical devices are switched off.
- Awareness is created among student and faculty members the day they join our institute so that littering is avoided in the campus. Apart from that Waste bins are kept at suitable locations in the campus so that littering does not occur.
- Students and faculty members have been created awareness to not to waste food items. We have special supervisors who ensure that the wastage of food is minimized.
- The bio-degradable material is put into the compost pit along with the foliage and leftover food and the same is used for composting.

- Recycling of waste water has been undertaken to reuse the water from bathrooms and kitchen cleaning areas for gardening purposes.



Fig. 7.2: Sewage Treatment Plant

Use of renewable energy

- The college has an energy park, set up with funding from Tamil Nadu Energy Development Agency (TEDA), which use solar energy for lighting.
- It is proposed to go in for solar water heaters for the hostels.



Fig. 7.3: Solar Power Plant



Fig. 7.4: Solar Lighting

Rain Water Harvesting

- Extensive rain water-harvesting activity has been undertaken at various parts of the campus, which results in the increase of ground water table.



Fig. 7.5: Rain Water Harvesting Pits

Check dam construction

- Check dam is available in the campus to stagnate the water.



Fig. 7.6: Check Dam

Efforts for Carbon Neutrality

- The net zero carbon foot print is achieved in the campus mainly through planting trees and steps are taken to conserve energy.
- The college is a beautiful serene campus full of greenery which improves the aesthetics, reduces global warming and green house effects.
- They provide shade in summer and act as wind breakers in winter season. It minimizes the use of air conditioners, fans and heaters.
- Trees are effective cleansers and remove pollutants from air and soil, thus minimizing the carbon footprint and around 750 trees have been planted in our campus so far.

Plantations

- College has ensured that trees were planted and maintained from the day, foundation stone has been laid.
- College also maintains a variety of on-campus plant life, both potted and otherwise, keeping the campus cool even in the summer heat.
- Use of in-organic fertilizers has been dispensed with and organic farming is being adopted for the kitchen gardens in the campus.



Fig. 7.7: Plantations all around the campus

Hazardous Waste Management

- Hazardous Chemicals are kept separately in the store room away from the reach of students. Lab In-charges takes care of the chemicals and safety norms in the laboratory are strictly followed.
- Students are made aware of the hazardous chemicals and safety aspects before utilizing the chemicals.
- The labs are well ventilated and spacious. 24-hour water supply is available in Chemistry lab and safety of the students is given top priority in planning a facility.

e -Waste management

- The e-waste generated is given to the authorized dealers who purchase the scrap and reuse the useful components.
- Non bio degradable wastes are segregated based on the type of material and stored in storage house. Once in two weeks it is being disposed through proper channel.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

The College has introduced the following innovations

- **Discipline:** College believes that discipline of an individual is the key aspect for success, not only in studies but in any endeavor pursued by the individual. Discipline

is enforced to maintain punctuality, good disposition and being well groomed.

- **Regularity:** We strongly believe that if the student attends the classes regularly and listen to the lectures delivered by the faculty, learning would happen in better manner. To ensure that students are regular to college, every day morning parents of students who have not come to college will be called and informed about the absence of the student. Parents are also kept informed about the importance of the student being regular in attending the classes. Hence more than 90% of our students attend more than 90% of the classes.
- **Mentoring:** RMKEC believes that teaching learning process does not end with class room interaction alone, thus we have Student Mentoring System in place. Every 20-odd students would have a mentor associated with them who would be in regular touch with students and their parents. They mentor, counsel and guide students to progress academically and improve on all aspects of learning that need to happen in campus. Student mentor will monitor the student's progress and discuss with parents over phone or in person to motivate the student to do the self-learning effectively. The mentoring system has helped us in, increasing the number of students graduating in four years. It has also helped us in, reducing the number of backlogs maintained by students.
- **Skill development for Faculty:** As technology is advancing and faculty members need to be trained in new technologies, training programs are arranged for faculty at regular intervals. As problem solving, critical thinking and logical ability of the students need to be enhanced for deriving innovative solutions for engineering problems, faculty members are tested for their problem solving and logical ability. Faculty members are tested for their coding ability to ensure that effective delivery of the concepts take place. In order to deliver technology driven teaching domain based expertise is created by training the identified faculty members on specific domains.
- **Enhancing Programming Skills:** It has been identified as the need of the hour and hence we provide students of all the departments a value-added training, to enhance their programming ability. The syllabus has been framed by involving experts from leading IT and ITES companies. Delivery is done with parallel hands on sessions so that everyone who is graduating out of institute would be able to write programs. Hacker rank platform is in use for the conduct of Data Structures Laboratory and small contests to create programming interest among students.
- **Centre of Excellence:** Heads of the Departments are made to visit industries at regular intervals to understand the gap between industry requirement and curriculum followed in the institution. This regular visit of Heads has led to creating various Centre's of Excellences at our college. Industry contributes in identifying and framing the syllabus

to be covered as part of training provided through the Centre of Excellence. Interested students are made to participate in the selection process through which eligible students are identified. The shortlisted students are trained either by industry expert or by a faculty who had been trained under train the trainer model.

- **Self-Learning:** As self-learning and lifelong learning are the buzz words in the industry, sometime back we have introduced self-learning initiative among our students. We motivate and reward our students for their participation in online MOOC courses offered by NPTEL, Coursera and various other sources. We share Videos and Presentation materials through Google drive to complement the classroom teaching and help students go through the topics at self-pace. Students are made to handle seminars on some of the syllabus topics and recent technical topics as well.
- **Feedback:** Feedback obtained from various stake holders are used to improve on the performance in various aspects, like academics, placement, entrepreneurship and so on. During the mid-semester, online feedback is obtained from students to identify the expectations of the students and corrective measures are taken when the need arises. Need based parent teacher meetings are conducted, during which feedback is taken from parents to upgrade the process being followed in our institution. Alumni feedback is taken bi-annually and the inputs given by them are used to enhance the process followed. Industry feedback is also taken at regular intervals and the inputs are used for devising the training programs offered by training and placement cell.
- **Alumni Contribution:** They are our brand Ambassadors. As we feel that alumni would be good motivators for the current set of students we involve our alumni students in motivating and mentoring our students. Alumni do contribute by way of conducting special lectures, mock interviews and mentoring some projects. E-Cell and i-Club are created by Alumni and organize events at regular intervals to enhance innovative and entrepreneurial skills of our students.

7.3 Best Practices

7.3.1 Elaborate any two best practices which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the college.

Title of the Practice: Skill Development for Enhancing Employability and to promote Entrepreneur Eco-system

Goal:

- Enhance quantitative and aptitude ability of the students.
- Improve their ability to express their views and ideas without any fear.
- Help them to enhance their analytical and logic building ability, there by programming becomes a habit.
- Ensure that they use good vocabulary so that communicating with international clients will not be a problem.
- Inculcate self-learning as part of their routine learning activity
- Involving students in entrepreneurial activities.

Context:

- A decade ago recruiting companies gave a feedback that students were technically good but need to be trained for (communication) soft skills. That motivated us to go in for a plan of action and started organizing training programs for soft skills.
- Couple of years ago on interaction with recruiters we came to understand that students need to be introduced to recent technologies, as they are not part of curriculum. Hence by collaborating with various industries we have formed Centre of Excellences for different technologies.
- Last year companies stated that graduate engineers are expected to be productive from day one and whatever may be the stream of study, the students are expected to possess good programming ability.
- Due to the global scenario, it is essential to produce job providers than job seekers.

The practice:

- During their First year of study all students are given an orientation program to make them understand what engineering is all about.
- They are being introduced to various essential life skills that need to be possessed by an engineer. Students are given detailed introduction to the scope and opportunities available for their field of specialization.
- Motivational programs are conducted to ignite their thinking ability. They are also exposed to a workshop on creative thinking which is essential for any individual to innovate. Both written and oral communication skill development trainings are scheduled and conducted to all our students.
- During the second year, all our students are motivated and trained to take up the Business English Certification (BEC). Resource persons from British Council are made

to handle sessions for a period of ten days

- Additional training is provided to ensure that their analytical ability and reasoning ability are enhanced. They are motivated to participate in national level competitions conducted by various agencies and industries (like AICTE, NASSCOM, Texas Instruments, IBM) to showcase and enhance their technical skills.
- During their third year of study students are trained to enhance their problem-solving ability.
- All students are mandatorily trained on enhancing their programming skills as all engineering graduates are expected to be computer literate.
- During the third-year students are provided with various opportunities to enhance their domain knowledge and also enhance their presentation and communication skills.
- Various Centre's of Excellence (COE) are set up to impart training on a specific domain. With the help of industry experts, we form core committees which will decide and frame the syllabus to be delivered as part of training through a COE. Faculty members are trained by industry experts who would subsequently train the students. In certain cases, industry experts, themselves train the students.
- Conduct Learn-wise programme through National Entrepreneurship Network and EDI, Government of Tamilnadu, which lead to students setting up startups.

Table 7.1: List of Training Provided

Semester	Name	Conducted by	Duration
1	Orientation Programme	Mr. Jayaprakash Gandhi	Half day
	Motivation Programme	Dr. B.V.Pattabhiram	Half day
	Life Skills Workshop	M/s.Ethnus	Half day
2	Engineering Orientation Programme	M/s.FACE	Two day
	Creative Thinking Workshop	M/s. Ethnus	One day
	Motivation Programme	Mr.T.Raghunath	Half day
3	Campus Readiness Programme	Smart	Two days
	Communication Skills – BEC Training	Smart	Five days
	Mock Aptitude Test	Placement Cell	
4	Communication Skills - BEC Training	Smart	Five days
	Personality Development Programme	M/s.Jade	Two days
	Mock Aptitude Test	Placement Cell	
5	Mission Possible – Interview skills improvement workshop	Mr.Suresh Punjabi	Two days
	Campus Readiness Programme	Smart	Two days
	Mock Aptitude Test	Placement Cell	
6	Aptitude Training Programme	Smart Resources	Five days
	Mock Aptitude Test (4,5,6)		

7	Aptitude Training Programme	Smart Resources	Two days
	Aptitude Test for Campus interview Preparation	RMKEC	Two days
	Mock Interview – Technical & HR	Faculty, Alumni & Experts from Industry	Two days
	Refresher Training Programme	Smart Resources	Two days
	Aptitude Training – Company Specific	Smart Resources	Two days
8	Motivation and Aptitude Training after 10 companies visit for yet to be placed students	Smart Resources	Two days

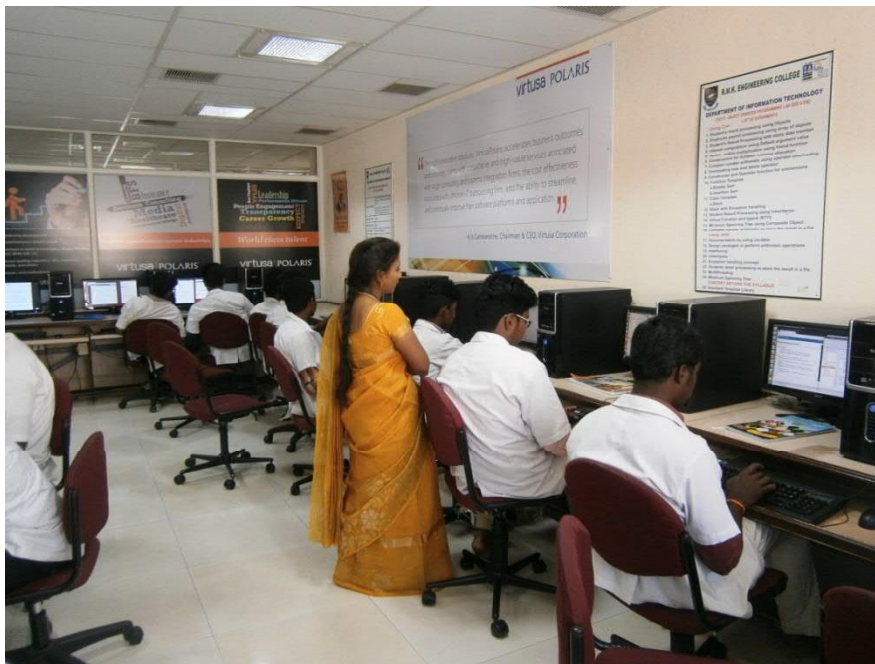


Fig. 7.8: Enhancing Programming Skills for Third Year Students

Evidence of Success:

- During the academic year 2009, 2010 and 2011 we had a placement record of 88% to 91%.
- During the next three years, we had seen a little dip in the placement record due to recession
- For the past three years, after practicing the model of Centre of Excellence training we have seen our placement % improving from 81 to 85.

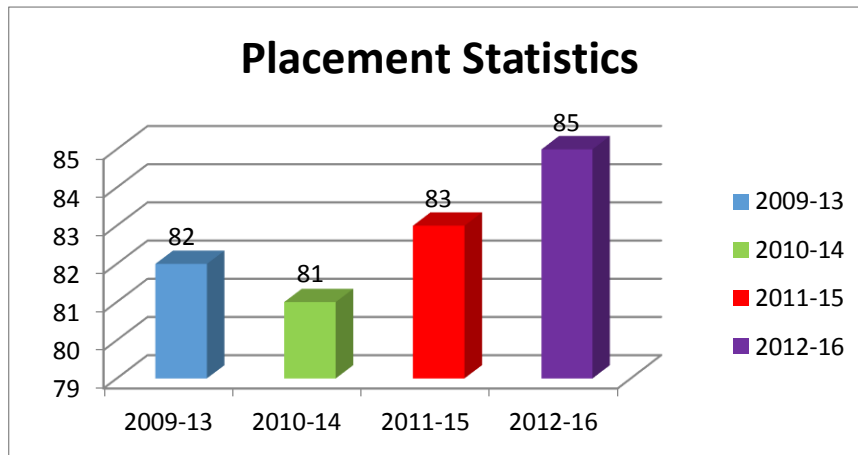


Fig. 7.9: Improvement in Placement Statistics

Startups

- Mr. Suresh N had developed a system to remotely monitor and control indoor farming. Based on his innovation he started a company named “GREEN FUTURE TECHNOLOGIES”.
- Mr. Karthick has started a company “ELECTRIFIRZ”, that engages in designing, manufacturing, and marketing of Home automation, Wireless communication, Media devices, Lighting, Energy efficient lighting solution and Healthcare products.
- After developing a product that preserve food, even under low voltage conditions Mr. E. Kaleeswaran and Mr. S. Manivannan have started a company named “M/s NIVI Robotics Private Limited” that develops products using Embedded Technology.

Problems Encountered & Resources Required:

- Making the students realize the importance of the training being imparted and make them participate with full involvement has been a problem in the beginning. As they see the fruits reaped by their seniors now most of the students are showing interest to become a member in any one of the Centre of Excellence.
- Trainers for many of the training programs are acquired through reputed training institutes. For technical training faculty members in our college are trained to deliver the content to our students.
- We have created the laboratories that are needed to train the students on various domains being covered by different Centre’s of Excellences.

Title of the Practice: Moderate Class Size

Goal:

- To connect more closely with their peers and become more confident and comfortable when it comes to sharing their ideas and perspectives.

- To individualize teachers' feedback and ensure that each student understands the material, gets the help he or she needs and is reaching his or her potential.
- To increase progression of the class by way of better grades.

Context:

- Mode of learning in a school is very much different from that of a college; in addition, if the class strength is increased students would find it difficult to get accustomed to the new learning environment.
- Students need to be strong in fundamental core technical knowledge, which is being delivered during the first two years of their graduate program. Hence having smaller group in a class will enable the students to gain core fundamental knowledge.

The practice:

- As per norms framed by national technical accreditation body and affiliating University a class size is 60/70. We divide the classes into smaller groups of 30/40 students, for better reachability.
- As students need at least three to four semesters to get accustomed to the new learning environment we practice it for the first two years of their study.
- By the end of second year students would have gained sufficient fundamental knowledge and confidence we revert the class size to 60/70.

Evidence of Success:

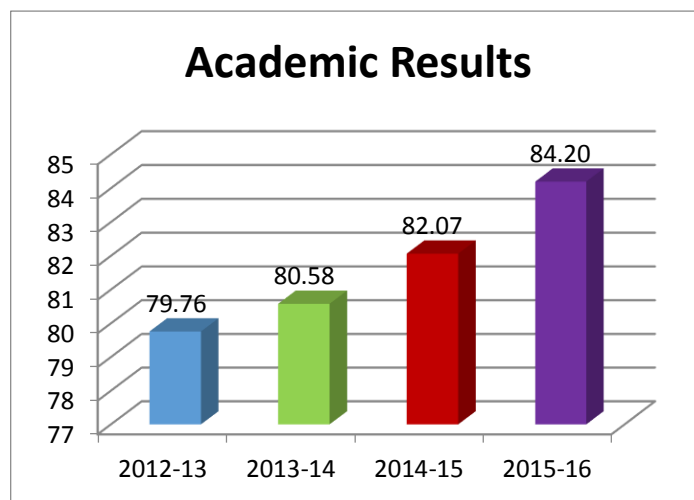


Fig. 7.10: Improvement in the Academic Results

Problems encountered & Resources Required:

- Need more faculty members and class rooms to handle additional sections of classes.

Contact Details

Name of the Principal: Dr. K.A. Mohamed Junaid

Name of the Institution: R.M.K. Engineering College

City: Kavaraipettai.

Pin Code: 601206.

Accredited Status:

Work Phone: +9144 33303331

Web Site: www.rmkec.ac.in

Mobile:

Fax: +9144 33303334

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Evaluative Report of Department of civil Engineering

1. **Name of the department** : CIVIL ENGINEERING
2. **Year of Establishment** : 2006
3. **Names of Programmes / Courses offered** : B.E. CIVIL ENGINEERING
4. **Names of Interdisciplinary courses and the departments/units involved:**

Sl. No	Interdisciplinary courses	Semester	Departments/ units involved
1	Computer Programming (GE6151)	01	CSE
2	Basic Electrical & Electronics Engineering (GE6252) -	02	EEE
4	Transforms and Partial Differential Equations (MA6351)	03	S&H
5	Numerical Methods	04	S&H
6	Principles of Management (MG6851) -	08	MBA

5. **Annual/ semester/choice based credit system (programme wise)**

Semester Base Credit System

6. **Participation of the department in the courses offered by other departments Basic**

Civil Engineering - Electrical & Electronics Engineering and
Electronics & Instrumentation Engineering

Professional Ethics - Mechanical Engineering

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

- NIL

8. **Details of courses/programmes discontinued (if any) with reasons** - NIL

9. **Number of teaching posts**

Posts	Sanctioned	Filled
Professors	2	4
Associate Professors	5	1
Asst. Professors	17	20

10. Faculty profile with name, qualification, designation, specialization, (M.E. / M.Tech., / Ph.D. / M. Phil. Etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for
Dr. Binu Sukumar	M.Tech., Ph.D	Professor & Head	Structural Engineering	24 years & 9 months	NIL
Dr. M. Usha Rani	M.E., Ph.D.	Professor	Structural Engineering	29 years & 7 months	NIL
Dr. Sivagnana Prabhu KK	B.E., M.Tech.,	Professor	Chemical Engineering	16 years	NIL
Dr. S. Sudhakar	M.E., Ph.D	Professor	Soil Mechanics and Foundation Engineering	14 years & 10 months	NIL
Dr. T. Muralikrishna	B.Tech., M.E., Ph.D.	Assoc. Professor (Gr. II)	Hydrology and Water Resources Engineering	14 years & 4 months	NIL
Ms. A. Hemamathi	M.E.	Asst. Professor (Gr. II)	Structural Engineering	10 years & 1 month	-NA-
Ms. Seena Simon	B.Tech., M.E.	Asst. Professor	Structural Engineering	3 years & 1 month	-NA-
Ms. S. Kokila	M.E.	Asst. Professor	Construction Engineering and	6 years	-NA-
Ms.T. Eswary Devi	M.E.	Asst. Professor	Environmental Management	8 years & 6 months	-NA-
Mr. P. Joyson Silva	B.E., M.Tech.	Asst. Professor	Structural Engineering	4 years & 9 months	-NA-
Ms. J.Martina Jenifer	B.E., M.Tech.	Asst. Professor	Structural Engineering	3 years & 9 months	-NA-
Mr. P. Ramshankar	M.E.	Asst. Professor	Infrastructure Engineering	5 years & 9 months	-NA-
Ms. P.Rekha	M.E.	Asst. Professor	Soil Mechanics and Foundation	4 years & 8 months	-NA-

Ms.G.Durga	M.E.	Asst. Professor	Integrated Water Resources	3 years & 10 months	-NA-
Mr.R.ArunPrathap	M.E.	Asst. Professor	Hydrology and Water Resources Engineering	4 years & 8 months	-NA-
Ms.Sharanya Balki	M.E.	Asst. Professor	Hydrology and Water Resources Engineering	3 years & 10 months	-NA-
Ms.J.Jenishta Louis	M.E.	Asst. Professor	Construction Engineering and Management	1 year & 9 months	-NA-
Ms.V.Sherin	M.E.	Asst. Professor	Structural Engineering	1 year & 9 months	-NA-
Mr.S.Herald Lessly	M.E.	Asst. Professor	Structural Engineering	2 years & 8 months	-NA-
Ms.J.Vinu preethi	M.E.	Asst. Professor	Environmental Management	1 year & 7 months	-NA-
Ms.R.Aishwarya	M.E.	Asst. Professor	Geomatics	3 years & 9 months	-NA-
Mr. Mozafar Hamid	B.E., M.E., MBA	Asst. Professor	Structural Engineering	27 years & 4 months	-NA-
Mr. A. Dhamodharan	M.S.	Asst. Professor	Environmental Science	13 years & 4 months	-NA-
Mr. G. Sivakumar	M.E.	Asst. Professor	Structural Engineering	29 years	-NA-

11. List of senior visiting faculty - NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - NIL

13. Student -Teacher Ratio (programme wise) -1: 15

14. Number of academic supporting staff (technical) and administrative staff; sanctioned and filled

Supporting Staff	Sanctioned	Filled
Academic support staff	05	05
Administrative staff	01	01

15. Qualifications of teaching faculty with PG/ Ph.D

Highest Qualification	No. of Faculty
Ph.D	05
P.G (M.E / M.Tech)	19

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - NIL

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received - NIL

18. Research Centre /facility recognized by the University - NIL

19. Publications: Publication of faculty

Name	Journals		Conferences		Citation Index	H Index	I Index	Impact Factor
	National	International	National	International				
Dr. Binu Sukumar	1	11	11	2	99	1	1	1.03-6.21
Dr. M. Usha Rani	3	12	11	11	-	-	-	1.92-6.21
Dr. S. Sudhakar	-	3	1	1	3	-	-	0.6
Dr. T. Muralikrishna	2	1	1	1	8	1	0	0.68-0.74
Ms. A. Hemamathi	-	1	1	-	-	-	-	1.034

Ms. S. Kokila	1		1	-	-	-	-	1.034
Mr. P. Joyson Silva	-	5	-	1	-	-	-	-
Ms. J.Martina Jenifer	-	6	1	1	-	-	-	-
Mr. P. Ramshankar	-	-	1	-	-	-	-	-
Mr. R.Arun Prathap	-	-	1	-	-	-	-	-
Ms. J.Jenishta Louis	-	-	1	-	-	-	-	-
Ms. V.Sherin	-	1	-	-	-	-	-	-
Mr.S.Herald Lessly	1	-	2	-	-	-	-	-
Ms. R. Aishwarya	-	-	1	-	-	-	-	-
Total	8	40	33	17	110	1	1	0.6-6.21

Books with ISBN/ISSN numbers with details of publishers

S.No	Name of the Faculty	Title of the Book	Year Published	Name of the publisher
1.	T. Eswary Devi & S Herald Lessly	Environmental Engineering I	2017	Magnus Publications
2.	S. Udhaya & P.Ramshankar	Railways Airports and Harbour Engineering ISBN 13: 978-81-932009-6-4	2016	Magnus Publications
3.	S. Udhaya	Remote Sensing Techniques and GIS	2016	Magnus Publications
4.	T. Eswary Devi & S Herald Lessly	Environmental Engineering II ISBN 13: 978-81-932009-3-3	2016	Magnus Publications
5.	Dr.Binu Sukumar & P.Joyson Silva	Strength of Materials ISBN 13: 978-81-932009-1-9	2016	Magnus Publications

6.	Dr.M.Usha rani & J.Martina Jenifer	Structural Analysis II ISBN 13: 978-81-932009-4-0	2016	Magnus Publications
7.	V.S.Padmaraj, P.Ramshankar & S Herald Lessly	Construction Materials ISBN 13: 978-81-932009-2-6	2016	Magnus Publications
8.	Dr.M.Usha Rani & J.Martina Jenifer	Structural Analysis Vol I	2015	Magnus Publications
9.	Dr.Binu Sukumar	Conference Proceedings ISBN:978-81-920889-5-2	2011-15 (5 Nos)	Conference on Latest Advancements in Civil Engineering

20. Areas of consultancy and income generated

Academic Year	Title of Consultancy Project	Clients	Amount (in Rupees)
2015-16	Testing of strength of concrete, Material Testing & Mix design	RR Thulasi Builders	80,000 /-
		Trance Teck Turnkey Pvt Ltd	80,000 /-
		Gayathri Bricks 'N' Blocks Pvt Ltd	30,000 /-
		Anjan Drug Private Ltd.	9,000 /-
		Prakash Industrial Infrastructure P.Ltd.	7,500 /-
		Bharath Petroleum Corporation Ltd.	900 /-
		Tamilnadu Generation Distribution C,Ltd.	600 /-
		Prakash Industrial Infrastructure P.Ltd.	1,800 /-
		Prakash Industrial Infrastructure P.Ltd.	1,800 /-

		Bharath Petroleum Corporation Ltd.	600 /-
		Prakash Industrial Infrastructure P.Ltd.	2,500 /-
		Top View	3000 /-
		Gannon Dunkerley & co.Ltd.	3000 /-
		Bharath Petroleum Corporation Ltd.	3000 /-
		Prakash Industrial Infrastructure P.Ltd.	900 /-
2016-17	Compaction test on soil	Gannon Dunkerley & co.Ltd.	3,000 /-
	Cube testing	M.K.Moorthy Civil Contractor (T.V.S Sundram Fasteners Limited)	900 /-
	Cube testing	M.K.Moorthy Civil Contractor(T.V.S Sundram Fasteners Limited)	1,800 /-
	Cube testing	Top View, Nacelle Factory Project, Gummidipoondi.	3,000 /-
	Cube testing	Bharath Petroleum Corporation Ltd.	3,000 /-
Total amount generated through Consultancy			Rs. 2,36,300/-

21. Faculty as members in

- National committees – 01
- International Committees – NIL
- Editorial Boards - 2

22. Student projects

- Percentage of students who have done in-house projects including inter departmental/programme – **50%**
- b) Percentage of students placed for projects in organizations outside the

institution i.e.in Research laboratories/Industry/ other agencies – 50%

23. Awards / Recognitions received by faculty and students Student Awards:

The National Concrete Canoe competition:

- IIT Madras in association with the Indian Concrete Institute conducted the National Concrete Canoe Competition (NC3) 2015 during 21- 23 August 2015 for students from various universities all over India. Totally 36 teams have participated in this competition including all IITs and NITs. **2 Teams (12 students in each team) from final year Civil Engineering** had been selected for final round and they have won Second Prize.
- **Mr. Dilli Vignesh**, III Year Civil Engineering received ‘STUDENT ENGINEER AWARD 2016’ from Dr. G.V. Uma, Controller of Examinations, Anna University, Chennai and Er. P. Selvakumar, Director Planning &Projects N.L.C Ltd., Neyveli on May 7th, 2016.The award consisted of a trophy, a certificate and a cash prize of ten thousand rupees.
- **Mr. Elanchezhian. D**, III Year Civil Engineering has secured 98% in the NPTEL Online Certification course on “Project Planning and Control” in April 2016.
- Seven final year Civil Engineering students won **Third Prize in the Global Climathon Challenge 2016** held at CEG, Anna University organized by Centre for Entrepreneurship Development (CED), Anna university jointly with World Youth Federation India trust (Nodal Centre of EDI Ahmedabad), Chennai.
- **Ms. Nachammai Kannappan** III year BE (Civil) won BRONZE MEDAL in the 5th Asian Games Beach Sepaktakraw Event held at Vietnam during October 2016.

Faculty / Department Awards:

- **Dr. M. Usha Rani** has been selected for the Best Teaching Faculty Award for the year 2016 sponsored by Dr. Kalam Educational Trust for tribal, Chennai
- ICI Student Chapter of Department of Civil Engineering, RMK Engineering College received the **ICI-UltraTech Award 2016** for Outstanding Student Chapter of Tamil Nadu consecutively 2nd time on 7th September 2016 during the CONCRETE DAY celebrations.
- ICI Student Chapter of Department of Civil Engineering, RMK Engineering College received the **ICI-UltraTech Award 2015** for Outstanding Student Chapter of Tamil Nadu on 7th September 2015 during the CONCRETE DAY celebrations.

- Received "**Construction Industry Award**" for the excellence in Civil Engineering education from the Honorable Governor of Tamil Nadu Dr. K. Rosaiah in 2014

24. List of eminent academicians and scientists / visitors to the department during last one year.

Sl.No	Name & Designation	Sl.No	Name & Designation
1.	Mr. A. Jyothish Kumar Director, Engineering Services Group, IGCAR Kalpakkam.	2.	Dr. B. Venkatraman, Associate Director, Radiological Safety and Env. Group, IGCAR Kalpakkam.
3.	Ms. Rekha Nambiar, Commandant, 4 th Battalion, NDRF, Arakonam.	4.	Capt. Santhanu N. Senior Manager, Administration TCS, Chennai.
5.	Col. Prasad Bhaskar, Assistant General Manager - Technical, TCS, Chennai.	6.	Dr. K.P. Subramanian, Former Professor, Anna University, Chennai.
7.	Dr. K. Balasubramanian, Managing Director, Hitech Concrete Solutions Pvt. Ltd.	8.	Dr. S.R. Sathish Kumar, Professor, Dept. of Civil Engineering, IIT Madras, Chennai
9.	Dr. Raghukanth S.T.G. Associate Professor, Dept. of Civil Engineering, IIT Madras	10.	Dr. Arun Menon Assistant Professor, Dept. of Civil Engineering, IIT Madras.
11.	Dr. K. N. Sathyanarayana, Director, IIT Tirupati.	12.	Dr. V. Balakumar, Senior consultant, Simplex Infrastructures Chennai
13.	Mr. L. S. Kannan, Head, Concrete Management Department, Buildings and Factories IC, L&T, Chennai	14.	Mr. K. Venkataraman, Assistant General Manager, Technical Services, Ultra Tech Cements, Chennai
15.	Dr. G. R. Dodagoudar, Professor, Department of Civil	16.	Dr. Manu Santhanam Professor, Department of Civil

	Engineering, IIT Madras		Engineering, IIT Madras
17.	Mr. A.A. Shaji, GM& Cluster Head L&T Constructions, Chennai	18.	Mr. D.P Das, Dept. GM-HR L&T Constructions, Chennai

25. Seminars/ Conferences/Workshops organized & the source of funding

CONFERENCES / SEMINARS / SYMPOSIA / WORKSHOPS	National / International	Source of Funding
Two days workshop on “Disaster Mitigation & Management” organized on 21.06.16 & 22.06.16	National	BRNS, Department of Atomic Energy
Collosum 2016” conducted on 26.09.2016 held at R.M.K.Engg College	National	R.M.K.Engg College
LACE 2016” A National Level Conference organized on 26.04.2016	National	Indian Society for Technical Education (ISTE), Indian Concrete Institute (ICI)

26. Student profile programme / course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass
			Male	Female	
U.G –B.E (2012-13)	72	65	45	20	100
U.G –B.E (2013-14)	72	70	58	12	100
U.G –B.E (2014-15)	144	137	111	26	98.57
U.G –B.E (2015-16)	144	135	97	38	94.89

27. Diversity of Students

Name of the Course	% of students from the same	% of students from other States	% of students from abroad
--------------------	-----------------------------	---------------------------------	---------------------------

U.G –B.E –CIVIL – (2013-14)	73.95	26.05	NA
U.G –B.E –CIVIL – (2014-15)	77.31	22.69	NA
U.G –B.E –CIVIL – (2015-16)	84.03	15.97	NA
U.G –B.E –CIVIL – (2016-17)	84.62	15.38	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Sl.No	Name of the Competitive Examination	Number of Students Cleared
1.	GATE	22
2.	TANCET	15
3.	MES (Defense)	02
4.	UPSC (Civil Services)	01
5.	BARC –DAE (Dept of Atomic Energy)	01
6.	TNPSC	09
7.	TNEB	03
	Total	53

29. Student progression

Student progression	2012-13 %	2013-14 %	2014-15 %	2015-16 %
UG to PG	27	20	25	19
PG to M.Phil.	NA	NA	NA	NA
PG to Ph.D.	Nil	1	1	Nil
Ph.D. to Post-Doctoral	Nil	Nil	Nil	Nil
Employed- Campus selection				
Off Campus	10	15	5	20
Entrepreneurship/Self-employment	7	4	11	0

30. Details of Infrastructural facilities

- Library: The department has a library with 1442 number of text books.
- Internet facilities for Staff & Students: 120 Mbps internet (Sharing Basis)

Name of the Internet provider	Band width	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70 mbps	Yes	Yes	Secured	Available
Reliance communications	220mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

Class rooms with ICT facility: 7 Class room with Black Board; 2 OHP projectors and 2 LCD projectors and One Laptop is available

Laboratories: 9 laboratories for carrying out the lab activities.

S.No.	Name of the Laboratory	Room
1.	Engineering Practice Lab	SS002
2.	Survey Lab	NB009
3.	CADD Lab (Computer aided Drafting & Modeling Laboratory)	SN 204
4.	Strength Materials Lab	SS001
5.	Hydraulic engineering Lab	SS008
6.	Concrete and Highway Lab	SS001
7.	Soil Mechanics Lab	SS007
8.	Environmental Engineering Lab	NB007
9.	Computer Aided Design and Drafting Lab	SN204

31. Number of students receiving financial assistance from college, university, government or other agencies

Year	Government Scholarship				FG	TF (Exempt)	College
	BC	MBC	SC	ST			
2012-13	36	21	10	0	72	0	8
2013-14	46	23	14	0	87	05	8

2014-15	47	25	20	1	89	12	8
2015-16	46	22	22	1	70	23	8

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Resource Person	Affiliation	Date
Dr. Balasubramaniam	Structural Consultant, High Tech Lab	6.7.2013
Dr. Mohan Ramnathan	Managing Director, ACT, Chennai	17.7.2013
Dr. Arun Menon	Associate Professor, Department of Civil Engineering, IIT Madras	20.7.2013
Mr. Sivakumar	Managing Director ICOMAT, Lab incubated by IITM	24.7.2013
Mr. K.V. Marthandan	Associate Professor, Department of Civil Engineering, IIT Madras	3.8.2013
Mr. Sivakumar	Managing Director ICOMAT, Lab incubated by IITM	11.1.2014
Dr. G. R. Dodagoudar	Associate Professor, Department of Civil Engineering, IIT Madras	23.1.2014
Mr. B. Dhanashekar	Engineering Manager, Intfrastucture, L & T, Chennai	25.1.2014
Dr. S. Justin	Chief Engineering Manager (Civil) EDRC – L&T Construction	9.7.2014
Er. Karthikeyan	Proprietor, Karthikeyan Associates	10.7.14
Mr. Kalyana Sundaram	Asst. Exe. Engineer-PWD Planning & Designs	19.7.14
Dr. J. Prabakar	Sr. Principal Scientist, Concrete Testing & Evaluation Lab, SERC	16.8.14
Ms. H. Zareena Basha	Technical officer 'C' Grade, Design Section, IGCAR, Kalpakkam	23.8.14
Mr. Mozafar Hamid	Vice President & Head, Blue Scope (I) Pvt. Ltd.	6.9.14

Mr. G. Nagakumar	System Engineer, TCS	3.1.2015
Mr. Mohit Khemka	Sr. Manager, Infrastructure Development Projects, L&T Constructions Ltd	10.1. 2015
Mr. D. P. Das	Deputy General Manager-HR Corporate Centre, L&T Constructions	14.2.2015
Mr. Sachin Damodar	Senior Supply Chain Manager, Amazon, Germany	17.2. 2015
Mr. Mozafar Hamid	Vice President & Head, Blue Scope (I) Pvt. Ltd.	4.7.2015
Dr. G. R. Dodagoudar	Professor, Department of Civil Engineering, IIT Madras	09.7.2015
Dr. S. Nagan	Assoc. Professor, Dept of CE Thiagarajar College of Engg. Madurai	11.7.15
Mr. T. Subramanian	Assistant Engineer Rural Development and Panchayat Raj	8.8.15
Mr. J. Raguraman	Sr. Manager- Skills Training L&T Construction	19.8.15
Mr. L. S. Kannan	Head, Concrete Management Dpartment, Buildings and Factories IC, L&T	6.2.2016
Mr. K. Venkataraman	Assistant General Manager, Technical Services, Ultra Tech Cements, Chennai	16.3.2016
Dr. G. R. Dodagoudar	Professor, Department of Civil Engineering, IIT Madras	24.3.2016
Dr.V.Balakumar	Senior Consultant, Simplex Infrastructures Limited, Chennai	13 .7.2016
Mr. Mozafar Hamid	Engineering Manager, Blue Scope Steel India pvt. Ltd, Chennai	16.7.2016
Dr. Dhamodharan	Managing Director, Eco Tech labs pvt. Ltd., Guindy, Chennai	27.7.2016
Mr. G. Sivakumar	Managing Director, ICOMAT & Technical advisor - RABC	30.7.2016
Mr. Santosh Kumar (Alumni Student)	Deputy Manager – Supply Chain Management Tata Projects Limited	20 .8.2016

Mr. Mozafar Hamid	Engineering Manager, Blue Scope Steel India pvt. Ltd, Chennai	27.8.2016
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33. Teaching methods adopted to improve student learning

• Quiz & Debates	• Tutorials	• Experimental Learning
• Group discussion	• Lectures with discussions	• Case Studies
• Role Play	• Guest lectures	• Project based learning
• Seminars	• Peer Instruction	• Presentations(OHPs & PPTs)
• Think-Pair-Share Technique	• Videos	• E-Learning Resources
• Muddy point	• Value Added Training	• Problem-based learning
• One Minute Paper	• Industrial visits	• Assignments
• Visual Aids & Models	• In-plant Training	

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The Department promote Institutional Social Responsibility through institution-neighbourhood community network and student engagement, contributing to good citizenship, service orientation and holistic development of students. The department is committed to social responsibility, by carrying out its mission in the following areas for students:

- Involving in NSS Camps
- Involving students in Blood Donation Camps
- Encouraging students to participate in co-curricular and Extracurricular activities
- Programming contest, paper presentations, project presentations etc.
- Motivating students to participate in student welfare activities
- Helping students in to be part of Professional society and club activities
- Acquiring memberships in different professional societies like ICI, ISTE, IE, ASCE etc
- Involving students to organize national level symposium as part of students' Association activities.

35. SWOC analysis of the department and Future plans

STRENGTHS

- Experienced, dedicated and highly qualified faculty members
- Strong team work in the department
- Constant encouragement given for faculty members in pursuing research leading to Ph.D.
- From the First Batch of the department (2010) secured 59 University Ranks with Two Gold Medals
- Received Construction Industry Award for the Excellence in Civil Engineering Education in 2014
- Received ICI-Ultra Tech Awards for the two consecutive years, 2015 & 2016
- Excellent Infrastructure and Lab facilities
- Strong bonding and a good relationship among teachers and students
- Maintaining good interaction with industries through Industrial Visits Internships, In- plant Training and Guest Lectures.
- High level of motivation to students to become Entrepreneurs – More than 20 successful Entrepreneurs are emerged

WEAKNESS

- Post Graduate Programmers could not be started yet.
- Department has not been recognized as a centre for research, in spite of having five Doctorates.

OPPORTUNITIES

- To start P.G Programmes with the existing facilities
- To prepare and motivate more number of students to qualify competitive exams such as GATE, IES, UPSC, CAT, GRE, TOFEL etc.,
- To improve placement in Core Companies through Campus Recruitment.
- To ensure Outcome based learning practices.
- To encourage students for life long learning.

CHALLENGES

- Placement of students in core companies
- Students with diverse background
- Job Market slowdown/ recession

- Lack of Programming Skills
- Lack of Interdisciplinary courses at higher semesters

FUTURE PLANS OF THE DEPARTMENT

- To start P.G Programmes in Structural Engineering and Construction Management
- To become a recognized Research Centre.
- To have research tie-ups with national and international reputed institutions.
- To initiate innovative projects resulting in Patents
- To encourage the students to become entrepreneurs.
- To Strengthen the R&D activities of the department through funded projects from Government Organizations.
- To Encourage Faculty for Publications (Journals and Books)

Evaluative Report of

Department of Computer Science and Engineering

1. **Name of the department** : COMPUTER SCIENCE AND ENGINEERING
2. **Year of Establishment** : 1997
3. **Names of Programmes /Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters Integrated Ph.D., etc.)**

U. G : B.E Computer Science and Engineering
 P. G : M. E Computer Science and Engineering
 Ph.D. : Information and Communication Engineering

4. **Names of Inter disciplinary courses and the departments/units involved**

Sl.No	Interdisciplinary courses	Semester	Departments/units involved
1	Technical English – I (HS6151)	01	S&H
2	Mathematics – I (MA6151)	01	S&H
3	Engineering Physics – I (PH6151)	01	S&H
4	Engineering Chemistry – I (CY6151)	01	S&H
5	Engineering Graphics (GE6152)	01	MECH
6	Technical English – II (HS6251)	02	S&H
7	Mathematics – II (MA6251)	02	S&H
8	Engineering Physics – II (PH6251)	02	S&H
9	Engineering Chemistry – II (CY6251)	02	S&H
10	Transforms and Partial Differential Equations (MA6351)	03	S&H
11	Analog and Digital Communication (CS6304)	03	ECE
12	Probability and Queuing Theory (MA6453)	04	S&H
13	Discrete Mathematics (MA6566)	05	S&H
14	Digital Signal Processing (IT6502)	06	ECE
15	Communications Skills and Career Development Lab(GE6674)	06	S&H

5. **Annual / semester / choice based credit system (programme wise)**

U.G : Semester
 P.G : Semester
 Ph.D.

6. Participation of the department in the courses offered by other departments

- B.E (ECE) – Object Oriented Programming and Data Structures (II Year) & Computer Architecture (III Year)
- B.E (EEE) - Object Oriented Programming (II Year)
- B.E (EIE) - Object Oriented Programming (II Year) & Operating Systems (III Year)

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

- Cambridge English: Business Vantage (BEC Vantage)
- Wipro Project Readiness Program (WIPRO PRP)

8. Details of courses / programmes discontinued (if any) with reasons: – NA –

9. Number of teaching posts

	Sanctioned	Filled
Professors	03	03
Associate Professors	05	07
Asst. Professors	18	18

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

S.No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1	Dr. T. Sethukarasi	Ph.D.	Professor	Data Mining	21.3 Y	9
2	Dr. A. Sandra Johnson	Ph.D.	Professor	Compiler Optimization	18.0 Y	-
3	Dr. K. Manivannan	Ph.D.	Professor	Data Mining & Theoretical Fluid	29 Y	-
4	Ms. S. Selvi	M.E (Ph.D.)	Associate Professor	Web Mining	19.4 Y	-
5	Ms. C. Geetha	M.E (Ph.D.)	Associate Professor	Sensor Networks	18.8 Y	-
6	Ms. P. Kavitha	M.E (Ph.D.)	Associate Professor	Image Processing	16.5 Y	-
7	Ms. A. Thilagavathy	M.E (Ph.D.)	Associate Professor	Image Processing	18.0 Y	-

8	Ms. R. Bhavani	M.E (Ph.D.)	Associate Professor	CSE	15.10Y	-
9	Mr. S. Vijaya Kumar	M.E (Ph.D.)	Associate Professor	DBMS	16.5 Y	-
10	Dr. B. Jaison	Ph.D.	Associate Professor	Data Mining	17.2 Y	4
11	Ms. R. Dhanalakshmi	M.E (Ph.D.)	Assistant Professor	Data Mining	12.6 Y	-
12	Mr. T. Ramesh	M.E (Ph.D.)	Assistant Professor	Cloud Computing	13Y	-
13	Ms. S. Radhika	M.E (Ph.D.)	Assistant Professor	Wireless Sensor Networks	14.7 Y	-
14	Dr. K. Anitha	M.E (Ph.D.)	Assistant Professor	Image Processing	11.2 Y	-
15	Mr. R. Jegadeesan	M.E (Ph.D.)	Assistant Professor	Wireless Networks	9.8Y	-
16	Ms. R. Manoranjitham	M.E (Ph.D.)	Assistant Professor	CSE	6.4 Y	-
17	Ms. N. Banupriya	M.E	Assistant Professor	CSE	5.9 Y	-
18	Ms. R. Precila Mary	M.E (Ph.D.)	Assistant Professor	CSE	8Y	-
19	Ms. S. Srijayanthi	M.E (Ph.D.)	Assistant Professor	Data Mining	14.4 Y	-
20	Ms. A. Jasmine Gilda	M.E	Assistant Professor	Data Mining	4.10 Y	-
21	Mr. R. Vidhya Prakash	M.E	Assistant Professor	Software Engineering	5.9 Y	-
22	Mr. N. Shanmugam	M.E	Assistant Professor	CSE	8Y	-
23	Mr. D. Kirubakaran	M.E	Assistant Professor	CSE	15Y	-
24	Ms. M.S Minu	M.E	Assistant Professor	CSE	2.3Y	-
25	Ms. P. Nandhini	M.E	Assistant Professor	CSE	0.8 Y	-
26	Ms. M. Divya	M.E	Assistant Professor	CSE	0.8 Y	-

27	Ms. D. Vimala	M.E	Assistant Professor	CSE	2.2 Y	-
28	Ms.P.JoySamathanathai	M.E	Assistant Professor	CSE	2.2 Y	-

11. List of senior visiting faculty

Dr. R. Seshadri

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 0%

13. Student Teacher Ratio (programme wise)

S.No	Programme	Students	Faculty	STR
1	B.E CSE	360	24	15.00
2	M.E CSE	36	4	11.11

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

S.No	Designation	Sanctioned	Filled
1	Lab Technician	5	5
2	Data Entry Operator	1	1

15. Qualifications of teaching faculty with D.Sc / D.Litt / Ph.D / M.Phil / PG.

Highest Qualification	No. of Faculty
Ph.D	05
P.G (M.E/M.S/M.TECH)	23

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: NIL

17. Departmental projects funded by DST/ FIST; UGC, DBT, ICSSR, etc. and total grants received

S.No	Faculty Name	Title of the Project	Amount in Rs.
1	Mrs. J. FarithaBanu	Visual Telephone for Hearing Impaired and mute People by NSTEDB – DST	Rs. 1,00,000
2	Dr. Jayakumar C	SDP Programming Paradigms - AICTE	Rs.2,50,000

3	Dr. K.L. Shunmuganathan	SDP Multi Agent System for Domains - AICTE	Rs.7,00,000
4	Dr. R. JagadeeshKannan Mr. T. Ramesh	Image Segmentation and Classifications based on non-causal multidimensional HMM-Macrodata Management Systems	Rs. 1,65,000

18. **Research Centre / facility recognized by the University:** YES, from 2006 onwards

19. **Publications:**

Sl No.	Name of the faculty	IJ	NJ	IC	NC
1	Dr. T. Sethukarasi	7	-	7	7
2	Dr. A. Sandra Johnson	7	-	4	-
3	Dr. K. Manivannan	12	-	5	-
4	Ms. S. Selvi	3	3	3	2
5	Ms. C. Geetha	5	-	4	-
6	Ms. P. Kavitha	1	-	-	2
7	Ms. A. Thilagavathy	3	-	-	5
8	Ms. R. Bhavani	5	-	-	3
9	Mr. S. Vijaya Kumar	-	-	-	2
10	Dr. B. Jaison	6	-	-	10
11	Ms. R. Dhanalakshmi	1	-	-	2
12	Mr. T. Ramesh	2	-	-	3
13	Ms. S. Radhika	1	-	-	-
14	Dr. K. Anitha	4	-	-	3
15	Mr. R. Jegadeesan	4	-	-	2
16	Ms. R. Manoranjitham	1	-	-	1
17	Ms. N. Banupriya	-	-	-	1
18	Ms. R. Precila Mary	1	-	-	2
19	Ms. S. Srijayanthi	1	-	-	1
20	Ms. A. Jasmine Gilda	1	-	-	3
21	Mr. R. Vidhya Prakash	2	-	-	2
22	Mr. N. Shanmugam	-	-	-	1
23	Mr. D. Kirubakaran	-	-	-	1
24	Ms. M.S Minu	-	-	-	-

25	Ms. P. Nandhini	-	-	-	-
26	Ms. M. Divya	-	-	-	-
27	Ms. D. Vimala	-	-	-	-
28	Ms. P. Joy Samathanathai	-	-	-	-

20. Areas of consultancy and income generated

Academic Year	Title of the Project	Faculty Name	Company Name
2012-13	Obtaining Efficient Ranked Results for Multi Keyword Queries over Encrypted Cloud Data	Dr. K.L. Shunmuganathan	Global Techno Solutions, Chennai.
2013-14	Obtaining Efficient Ranked Results for Multi Keyword Queries Over Encrypted Cloud Data	Dr. K.L. Shunmuganathan	Global Techno Solutions, Chennai.
	Neural Networks and its Application to context based image retrieval	Dr. K.L. Shunmuganathan	Perpetro Technologies Pvt Ltd, Chennai.
	Privacy Preserving Authenticated Access Control and Decentralized Key Management for Cloud Storage	Mr.M.Somasundaram	Perpetro Technologies Pvt Ltd, Saidapet, Chennai.
2014-15	Privacy Preserving Authenticated Access Control and Decentralized Key Management for Cloud Storage	Mr. Somasundaram	Perpetro Technologies Pvt Ltd, Saidapet, Chennai.
	Neural Networks and its Application to context based image retrieval	Dr. K.L. Shunmuganathan	Perpetro Technologies Pvt Ltd, Saidapet, Chennai.
	Obtaining Efficient Ranked Results for Multi Keyword Queries Over Encrypted Cloud Data	Dr. K.L. Shunmuganathan	Global Techno Solutions, Ashok Nagar, Chennai.
2015-16	Acquiring relevant ranked results for multi-keyword search queries over encrypted cloud data	Mr T Ramesh	Blue chip technologies

	A Secure and Reputation based recommendation framework for Cloud Services	Dr. K.L. Shunmuganathan	Perpetro Technologies Pvt Ltd, Saidapet, Chennai.
	An Improved Fuzzy based algorithm for detecting text from images using stroke with transforms	Ms. A. Thilagavathy	STARTECH OFFICE AUTOMATION
	A Secure method for enhancing cloud services lifecycle using Ontology	Dr. T. Sethukarasi	Perpetro Technologies Pvt Ltd, Saidapet, Chennai.
	Efficient ranked results for Multi Agent	Dr. K.L. Shunmuganathan	Global Techno Solutions, Ashok Nagar, Chennai.

Consultancy				
Academic Year	Title of the Project	Faculty Name	Company Name	Amount
2012-13	Multi Agent System	Dr.K.L. Shunmuganathan	Global Techno Solutions	1,50,000
	Computer Security	Dr. S.V. Nagarajan	SETS	2,50,000
	Multi Core Architecture	Mr.T.Ramesh	I Logix	1,00,000
2013-14	Multi Agent System	Dr. K.L Shunmuganathan	Global Techno Solutions	NIL
	Multi Core Architecture	Dr. K.L Shunmuganathan	I Logix	NIL
	Big Data	Mr.M. Somasundaram	Global Techno Solutions	NIL
	Multi Core Architecture	Dr. K.L Shunmuganathan	Perpetro Technologies Pvt Ltd	NIL

2014-15	A Machine Learning Approach for Health Care System and Knowledge Seekers	Dr.K.L. Shunmuganathan	MICRODATA MANAGEMENT SYSTEMS	NIL
	Big Data	Mr.M.Somasundaram	Global Techno Solutions	NIL
	Multi Core Architecture	Dr.K.L. Shunmuganathan	Perpetro Technologies Pvt Ltd	NIL
	Multi Agent System	Dr.K.L. Shunmuganathan	Global Techno Solutions	NIL
2015-16	Cloud Computing	Dr.K.L.Shunmuganathan	Perpetro Technologies Pvt Ltd	NIL
	Cloud Computing	Dr.K.L.Shunmuganathan	Blue Chip Technologies	NIL
	Mobile Computing	Dr.T.Sethukarasi	Geek Protocol	NIL
	Mobile Computing	Mr.M.Somasundaram	Geek Protocol	NIL
	Big Data	Dr.K.L.Shunmuganathan	Scartnet Innovative IT Solution	NIL

21. Faculty as members in

ISTE Life Member	
	19

	NCRICSE -13	NCRICSE -14	NCRICSE -15	NCRICSE -16
Organizing Committee	17	16	16	17
Editorial Committee	5	5	7	5
Technical Committee	6	7	5	6

22. Student projects

- Percentage of students who have done in-house projects including inter departmental / programme **90%**
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories / Industry / other agencies **10%**

23. Awards / Recognitions received by faculty and students

Students	Faculty
20	05

By Faculty

- Dr. K. Manivannan being nominated as NATIONAL EXPERTS ADVISOR COMMITTEE NEAC member by DST, Ministry of Science & Technology, Government of India.
- Dr. K. Manivannan, Professor and Coordinator IEDC for having elected as Vice-President (Industry Academia Relations) IFEES, USA.
- Dr. K.L.Shunmuganathan , Professor CSE awarded with ISTE National Award for Innovative Research Work 2015.
- Dr. K.L.Shunmuganathan , Professor CSE awarded Best Faculty Award by CTS
- Dr. K. Manivannan, COORDINATOR / IEDC PROFESSOR selected as VICE-PRESIDENT ISTE, New Delhi.
- Dr.R.JagadeeshKannan received an “Paper Presenter Award” at International Conference given by Computer Society of India held at Kolkatta on 01st and 2nd December 2012.
- Dr. R. JagadeeshKannan, Professor / CSE received Best Student Branch Award for Region VII, instituted by Computer Society of India (CSI) was presented in 48th Annual National Convention of Computer Society of India.
- Ms. R. Precila Mary, Asst. Professor / CSE received Infosys Campus Connect Bronze Partnership Award, instituted by Infosys.
- Ms. A. Thilagavathy, Assoc. Professor and Ms. R. Precila Mary, Assistant Professor have won NSPIRE 20140 Bronze Award from Infosys.

By Students

- Mr. Lokeshwaran K winner in the action plan competition under the track Eradicating Extreme Poverty and Hunger at 12th Global Student Forum Empowering the Millennials held in the city of Seoul, South Korea.
- Mr.Muthukalai P and Jerome Michael M of CSE Department won TCS Best student

project awarded for e-cheque using android project.

- Mr. S. Ashwin Chief Student coordinator for official zonal center (R.M.K. Engineering College) of National Android Development Challenge, March 2015.
- Mr. A. Sivasubramanyam, won first prize in the national level “ Alan Turing Quiz” organised by the Computer Society of India for two consecutive years (2014 and 2015).
- Mr. A. Sivasubramanyam, won second position in the “Kerala Government Engineering Design National Award” instituted by the Indian Society of Technical Education (2015).
- Mr. A. Sivasubramanyam, won first prize in the district level round of “Hon’ble Chief Minister’s Award for Excellence in e-governance” for “Map My Problems”, a grievance redressal system based on PHP, MongoDB and Javascript(2015).
- Ms. L. Sruthi Mano CSE Department were awarded Scholarship of 20,000 in National Workshop on “ Cloud Computing” on February 15 2012.
- Mr. K.Kiran Kumar, Department of CSE has selected for TCS Best Student Award 2012 from Tata Consultancy Services Ltd. Chennai.
- Mr. C. Vivek, ISTE Chapter Best Student Award 0 2013 was awarded by ISTE TN & P Section in 13 th ISTE State Level Annual Convention For Engineering Students.
- Mr. C. Vivek & Mr. M. Sanjay, ISTE Appreciation Award 0 2013 was awarded by ISTE TN & P Section in 13 th ISTE State Level Annual Convention For Engineering Students.
- Mr. Mukesh M, Department of CSE won first prize of 3rd National Alan Turing in Computer Science Quiz contest 2015 conducted by CSI, ASM IBMR, Pune.
- Ms. Rajalakshmi P, Ms. Sree Raga N, Ms. Shyamala Devi G, Department of CSE has received the TCS Best Students Project Award 2014.
- Mr. M. AnandhaVignesh, Mr.S. Ashwin Department of CSE presented paper at IIT Madras and won second prize.
- Mr. A. Sivasubramanyam, Mr. M. Vignesh, Vishwas M Adiga, Mr. M. Sagar, Mr. Krishna Pokkuluri of Department of CSE, Presented paper at ISTE and won first prize.
- Ms. Suhrita K of Department of CSE Presented paper at ISTE and won second prize.
- Mr. M. Manikandan, Ms. J. Vaishnavi, Mr.C. Varunvasan of Department of CSE participated in a workshop on Big Data and created most number of websites (1000)

in one day which is included in the World Records India.

- Ms. A. Elakya, Department of Computer Science and Engineering achieved world record achievement in World Biggest International Mobile APP Development hands on workshop organized by Microsoft Research community, Chennai and GRRIL Pty Ltd, London UK.

24. List of eminent academicians and scientists / visitors to the department

- Sanjay Murali from iNautix Technologies
- Vinesh Kumar D from Accenture Pvt. Ltd, Chennai
- K.M. Praveen, KM Traders
- T. Chaithanya Krishna, TCS
- G. Preethi, SGS Technologies
- S. Mahendran, ZOHO Corporation etc....

25. Seminars / Conferences / Workshops organized & the source of funding

Type	No.of STTP	No.of. Conference	No.of SDP	No.of Seminar	No.of Workshop	Source of Funding
National	-	4	1	1	3	AICTE, NI, CSIR, ISOI
International	-	1	-	-	-	NASSCOM CSI, ISCA INNS & IAMI

26. Student profile programme /course wise:

Programme (refer question no. 4)	Academic Year	Applications received	Selected	Enrolled		Pass %
				*M	*F	
B.E CSE	2012 – 2013	119	119	52	67	87.78
	2013 – 2014	118	118	52	66	-
	2014 – 2015	117	117	55	62	-
	2015 – 2016	120	120	55	65	-
M.E CSE	2012 – 2013	18	18	4	14	94.44
	2013 – 2014	18	18	2	16	100
	2014 – 2015	12	12	2	10	100
	2015 – 2016	8	8	1	6	-

*M = Male *F = Female

27. Diversity of Students

Name of the Course	Academic Year	% of students from the same	% of students from other States	% of students from abroad
UG - B.E CSE	2012 – 2013	73.33	26.64	NIL
	2013 – 2014	63.02	36.98	NIL
	2014 – 2015	69.75	30.25	NIL
	2015 – 2016	64.16	35.84	NIL
PG - M.E CSE	2012 – 2013	94.45	5.55	NIL
	2013 – 2014	83.33	16.67	NIL
	2014 – 2015	91.67	8.33	NIL
	2015 – 2016	100	0	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil Services, Defense services, etc.?

S.No	Name of the Competitive Examination	Number of Students Cleared
1.	TANCET	2
2.	Any other competitive examination(CAT/MAT/GRE)	107

29. Student Progression

Student Progression	Against % enrolled			
	2012 – 13	2013 – 14	2014 – 15	2015 - 16
UG to PG	9.92	7.14	11.67	6.01
PG to Ph.D.	16.67	5	11.8	0
Ph.D.to Post Doctoral	-	-	-	-
Employed Campus selection	87.5	80.41	98.5	94.11
Employed Other than campus recruitment	-	-	1.5	1.5
Entrepreneurship / Self Employment	4.5	2.9	1.5	1.5

30. Details of Infrastructural facilities

- **Library:** The department has a library with 250+ number of text books
- **Internet:** facilities for Staff & Students

Name of the Internet provider	Bandwidth	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70Mbps	Yes	Yes	Secured	Available
Reliance communications	220Mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

- **Class rooms with ICT facility:** 9 Class room with Black Board; 1 OHP projectors and one LCD projector is also available
- **Laboratories**
 - 120 systems with Core i7 as configuration are available for conducting the curriculum laboratories.
 - 30 Apple systems are available for conducting mobile application development laboratory.
 - Centre of Excellence in Digital Enterprise
 - Centre of Excellence in Mobility
 - Centre of Excellence in Information Security

31. Number of students receiving financial assistance from college, university, government or other agencies

B.E CSE

Trust / Government	Number of students provided with financial assistance in			
	2012 – 13	2013 – 14	2014 – 15	2015 – 16
By Trust	0	5	12	84
By Government	97	90	97	25

M.E CSE

Trust / Government	Number of students provided with financial assistance in			
	2012 – 13	2013 – 14	2014 – 15	2015 – 16
By Trust	0	1	2	1
By Government	5	7	4	4

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

	2012-13	2013-14	2014-15	2015-16
Student Enrichment programme	1	-	9	10

33. Teaching methods adopted to improve student learning

- Audio-visual presentation for theory and practical classes
- On line lectures from NPTEL
- Invited guest lectures are regularly arranged (2 per semester)
- Industrial visits are arranged in relevance with subjects
- Intra department paper presentation contest
- Content beyond syllabus
- Mini projects (Individual and group based projects) in core subjects
- Research oriented final year projects and Research paper publication in conference/seminars/journals
- Remedial classes for slow learners

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The Department promote Institutional Social Responsibility through institution-neighbourhood community network and student engagement, contributing to good citizenship, service orientation and holistic development of students. The department is committed to social responsibility, by carrying out its mission in the following areas for students:

- Involving in NSS Camps & Blood Donation Camps
- Participation in inter and intra-college symposiums –Programming contest, paper presentations, project presentations etc.
- Participation in student welfare activities
- Helping students in association and club activities
- Acquiring memberships in different societies like CSI, IE, ISTE etc
- Participation in cultural events and competitions.
- Active participation in department level and University level Students associations.
- Organization of national level symposium as part of students Association activities.

For faculty it has

- Participation in administrative activities
- Participation in student welfare activities
- Helping students in association and club activities

35. SWOC analysis of the department and Future plans

Strengths

- Strong and highly qualified faculty with a balance of interest in research and teaching; 5 faculty members with Ph.D. and 10 pursuing Ph.D.
- High faculty retention with 75% of the faculty members having been serving for more than 8 years.
- Excellent and creamy students; the institution is a preferred destination for the toppers and high performers in schools and CSE is the highly preferred branch among the toppers in school.
- Well established Teaching & Learning processes at institutional level resulting in high academic performance and high number of University rank holders.
- Successful alumni in high positions in the government and corporate, as entrepreneurs and in teaching and research in India and abroad and many of them helping and support the students through various Alumni connect initiatives.
- Excellent connection and regular ongoing interactions with industry; collaboration with industry resulting in high quality guest lectures, lab sponsorship, training faculty members and students by industry etc.
- Coordinating the COEs at institution level in the latest technologies of Mobility, Big Data Analytics, Cloud Computing and Information Security.
- High level of Placement at institution level with majority of companies being in the IT industry and they are preferring students from CSE.
- Excellent coordination and participation in the activities of Professional Bodies like CSI, ISTE, ISTE, IEI, NASSCOM etc over years and having won awards and appreciations and having conducted various activities jointly (eg conferences and workshops).
- Strong research opportunities through the Anna University approved Research Center facilitating scholars to pursue Ph.D. and M.S. (Research) and 3 Ph.D. supervisors in the department.
- Highly active Corporate Competitions initiative resulting in large number of students winning Corporate Competitions at national and international level.

Weaknesses

- No scope of updating of syllabus as the Institute follows the syllabus prescribed by Anna University as the curriculum is changed only once in five years.

Opportunities

- Excellent funding support from Management for Value Added Training and for establishment of Lab facilities over and above what are required by the AICTE and University regulations.
- Excellent career opportunities for graduates in the corporate especially in the IT industry as Chennai are one of the leading destinations of Indian and Multi National IT companies.
- Excellent opportunities for graduates becoming entrepreneurs as the State and Central Governments and Professional Bodies (eg NASSCOM) have initiated and funded various initiatives to encourage students to start-up companies.
- Excellent recognition and support of ICT technology by the Government through various initiatives like Digital India, Start-up India, Make in India etc.
- Excellent opportunities for students to pursue higher studies in India or abroad as the performance in the institution at undergraduate level is regarded highly by other universities to admit students at post graduate level.

Challenges

- Job opportunities likely to be affected due to various challenges and changes in product companies of IT industry at global level.
- Restrictions by other countries to admit Indian students for post graduate studies.

FUTURE PLANS OF THE DEPARTMENT

- To have research tie-ups with national and international reputed institutions.
- Patenting the innovative research work carried out in the department.
- To encourage the students to become entrepreneurs.
- Strengthening of linkages with DST, AICTE, IGCAR, CSIR, BRNS, UGC etc. for contributing towards the productive socio-economic growth.

Evaluative Report of

Department of Electrical and Electronics Engineering

1. **Name of the department** : Electrical and Electronics Engineering
2. **Year of Establishment** : 1995
3. **Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.)**

Program	Degree	Specialization
UG	B.E	Electrical and Electronics Engineering
PG	M.E	Power Electronics & Drives
Doctoral Program	Ph.D	Electrical & Electronics Engineering

4. **Names of Interdisciplinary courses and the departments/units involved**

Sl.No	Subject Code	Course Name	Department /Semester
1	MA6351	Mathematics III	S&H/III Semester
2	GE6351	Environmental Science	S&H/III Semester
3	MA6459	Numerical Methods	S&H/IV Semester
4	IT6502	Digital Signal Processing	ECE/IV Semester
5	CS6456	Object oriented Programming Systems	CSE/IV Semester
6	ME6701	Power Plant Engineering	MECH/V Semester
7	EC6651	Communication Engineering	ECE/VI Semester
8	EE6007	Micro Electro Mechanical Systems	EIE/VII Semester
9	EI6704	Biomedical Instrumentation	EIE/VII Semester
10	MG6851	Principles of Management	MBA/VII Semester
11	GE2022	Total Quality Management	MBA/VIII Semester
12	EI6703	Fibre optics and laser Instruments	EIE/VII Semester

5. **Annual/semester/choice based credit system (programme wise)**

All Programmes / Courses (UG/PG) offered are Semester based

6. Participation of the department in the courses offered by other departments

Sl.No	Subject Code	Course Name	Department /Semester
1.	EE6351	Electrical Drives and Controls	MECH/III
2.	EE 6365	Electrical Engineering Laboratory	MECH/III
3.	EE 6461	Electrical Engineering and Control Systems Laboratory	ECE/IV
4.	EE 6352	Electrical Engineering and Instrumentation	ECE/III
5.	GE 6252	Basic Electrical and Electronics Engineering	MECH/II
6.	GE 6252	Basic Electrical and Electronics Engineering	CVIL/II
7.	IT6502	Digital Signal Processing	IT/III

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Sl.No.	Courses	Collaborative Industry/University
1	British English Course	Cambridge University
2	Factory Automation Laboratory	Mitsubishi Electric Pvt. Ltd
3	Automotive Electronics	KPIT
4	Embedded Systems Lab	Wipro Technologies
5	Mobility lab	iNautix
6	Big Data Lab	CTS
7	Campus Connect	Infosys

8. Details of courses/programmes discontinued (if any) with reasons : Nil

9. Number of teaching posts

- UG

S. No	Designation	Sanctioned	Filled
1.	Professors	3	3
2.	Associate Professors	6	6
3	Assistant Professors	20	20

• **PG**

S. No.	Designation	Sanctioned	Filled
1.	Professor	1	1
2.	Associate Professor	-	-
3.	Assistant Professors	2	2

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil.etc.)

Sl No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last4years
1.	Dr. Geetha Ramadas	Ph.D	Professor &HoD	Electric Drives	26 years	Nil
2.	Dr.Sukhi.Y	Ph.D	Professor	Mechatronics	22 years	Nil
3.	Dr. S Vijayalaksmi	Ph.D	Professor	Applied Electronics	18.4	Nil
4.	Dr.Magesh.T	Ph.D	Professor	Power Systems	17.6 years	Nil
5.	Dr.Anita.S	Ph.D	Associate. professor	Engineering Sciences	19 years	Nil
6.	Ms.M.S.Kavitha	M.E.	Associate. professor	Applied Electronics	16 years	Nil
7.	Dr.N.Manojkumar	Ph.D	Associate. professor	Power Electronics	11 years	Nil
8.	Ms.Chandla Ellis	M.E.	Associate. professor	Power Electronics	16.6 years	Nil
9.	Mr.M.Ganesan	M.E.	Associate. professor	Power Electronics	14.5.years	Nil
10.	Ms.A.Alhamdhu Nisha	M.E.	Asst. Professor	Power Electronics	13.5 years	Nil
11.	Ms.L.Annie Isabella	M.E.	Asst. Professor	Power Electronics	12 years	Nil

12.	Ms.S.Balamurugan	M.E.	Asst. Professor	Power Systems	10.5.years	Nil
13.	Mr.P.Anand	M.E.	Asst. Professor	Power Systems	8.6 years	Nil
14.	Ms.R.Pavithra	M.E.	Asst. Professor	Power Systems	4.5 years	Nil
15.	Mr.P.Vigneswaran	M.E.	Asst. Professor	Power Electronics	5.2years	Nil
16.	Ms. Kowsalya P	M.E	Asst. Professor	High Voltage Engineering	8.8 years	Nil
17.	Mr.A.FayazAhamed	M.E.	Asst. Professor	Power Electronics	12.6 years	Nil
18.	Ms.S.Kirthiga	M.E.	Asst. Professor	Power Electronics	9.8 years	Nil
19.	Ms.M.Perarasi	M.E.	Asst. Professor	Applied Electronics	3.5 years	Nil
20.	Ms. Priya R	M. E	Asst. Professor	Energy Engineering	10.3 years	Nil
21.	Ms.V.Karthika	M.E.	Asst. Professor	Control & Instrumentation	3.5 years	Nil
22.	Mr.M.Thiyagesan	M.E.	Asst. Professor	Power Electronics	5 years	Nil
23.	Ms.A.Jenifer	M.E.	Asst. Professor	Power Electronics	4.5 years	Nil
24.	Ms.SabariL.UmaMaheswari	M.E.	Asst. Professor	Power Systems	10 years	Nil
25.	Mr.S.Balavignesh	M.E.	Asst. Professor	Power systems	6.5. years	Nil
26.	Ms.C.K.Subasri	M.Tech	Asst. Professor	Control & Instrumentation	2.5 years	Nil
27.	Ms.M.Vimala	M.E.	Asst. Professor	Power Electronics	3.7 years	Nil
28.	Mr. Krishnakumar	M.E.	Asst. Professor	Power Electronics	2.7years	Nil

29.	Ms. Parameswari M	M.E.	Asst. Professor	Power Electronics	Nil	Nil
30.	Ms. Nathimugil J	M.E.	Asst. Professor	Power Electronics	Nil	Nil
31.	Ms. Saleena Devi C	M.E.	Asst. Professor	Power Electronics	Nil	Nil
32.	Mr. Antony Robert A	M.E.	Asst. Professor	Power Electronics	5.6 years	Nil

11. List of senior visiting faculty

S. No.	Name	Details	Designation
1.	Dr. C. Chellamuthu	Former Anna University Professor 59 Journal Publications	Emeritus Professor

12. Percentage of lectures delivered and practical classes handled (programme wise)

By temporary faculty

Nil

13. Student-Teacher Ratio (programme wise)

Sl.No	Programme	No. of students	No. of Faculty	STR
1.	UG-B.E.	420	30	1: 14
2.	PG- M.E.	36	03	1:2.33

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

S. No	Staff Category	Sanctioned	Filled
1.	Technical	5	5
2.	Office Staff	1	1

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Highest Qualification	No.of Faculty
Ph.D	06
P.G (M.E/M.Sc/M.Tech)	26

S. No	No. of Faculty with Ph.D	No. of faculty with M.E/M. Tech
1.	06	26

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

- National**

S. No	Name of the Faculty	Funding Agency	Title of the Project	Amount	Status
1.	Dr. N. M. JothiSwaroopan	IEDC, DST (INSTEDB)	Life Saving Helmet & Watch	1 lakh	On Going
2.	Dr.T.Magesh	IEDC, DST (INSTEDB)	Portable Charger	1 lakh	On Going
2.	Mrs. M.S. Kavitha	IEDC, DST (INSTEDB)	Smart Farming Using IOT	1 lakh	On Going

- International: Nil**

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received

S. No	Name of the Faculty	Funding Agency	Title of the Project	Amount	Status
1.	Dr.Manoj Kumar	Suguna Motors and Pumps	Optimal Pulse Width Modulation for Dual – Inverter Fed Induction Motor Drive	1 Lakh	Completed
2.	Dr. N M Jothiswaroopan	IEDC,DST	Cloud Farming	1 Lakh	Completed
3.	Ms.M.S.Kavitha	Future Farms	Monitoring of Sewer Flooding	1 Lakh	Completed
4.	Dr.T.Magesh	Solar Energy Solutions Pvt.Ltd	Study and Simulation of Standalone PV Systems	25,000	Completed

5.	Dr. Geetha Ramadas	IEDC	Photovoltaic Driven High Precision Temperature Controllable Peltier Electric Cooler	1 Lakh	Completed
6.	Ms. Alhamdu Nisha	IEDC	PWM Technique for Microbial Inactivation under Pulsed Electric Field	1 Lakh	Completed
7.	Dr.Y.Sukhi	Jasmine Concrete Exports Pvt Ltd	Estimation of Fuel Tank Capacity using Ultra Meter	25,000	Completed
8.	Dr.S.Anita	Citadel Controls Pvt Ltd	H.A.N.D.(Human Android Device)	25,000	Completed
9.	Ms.Chandla Ellis	Advance technologies	Contemporary Real Time Electric Meter for Supervision of Power Demand	30,000	Completed
10.	Dr.T.Magesh	Alpha Engineering Works	Design of Horizontal Wind Mill	50,000	Completed
11.	Mr.P.Anand	Alpha Engineering Works	Study of Performance Improvement in Solar Panel	50,000	Completed
12.	Dr.N.Manoj Kumar	Vi micro Systems	3 level Neural Point Diode Clamped Inverter Fed DTC Induction Motor	1 Lakh	Completed
13.	Dr.C.Chellamuthu	MNRE, CWET	Power Quality Issues in Grid Connected Wind Farms	15 lakhs	Completed

18. Research Centre/facility recognized by the University

- Department of EEE is recognized as a Research Centre by Anna University since 2006.
- 11 Ph.D scholars completed their Ph.D program and 10 scholars are carrying out their research

19. Publications:

- **Journal publication by Faculty**

S. No	Name of the Faculty	Designation	No. of Publications	Data Base
1	Dr. C. Chellamuthu	Emeritus Professor	50	Web ofScience&Scopus
2	Dr.N. M. Jothi Swaroopan	Professor	15	Web ofScience&Scopus
3	Dr. Geetha Ramadas	Professor	05	Web ofScience&Scopus
4	Dr. Y. Sukhi	Professor	08	Web ofScience&Scopus
5	Dr.T. Magesh	Professor	06	Web ofScience&Scopus
6	Dr. S. Anita	Associate Professor	02	Scopus
7	Dr.N.Manojkumar	Associate Professor	07	Web ofScience&Scopus
8	Ms.M.S.Kavitha	Associate Professor	01	Scopus
9	Ms.Chandla Ellis	Associate Professor	06	Scopus
10	Ms.A.Alhamdhu Nisha	Assistant Professor	02	Scopus
11	Ms.L.Annie Isabella	Assistant Professor	02	Scopus
Total No of Papers Published: 102				
Total Citation index:222				
Total h-index:08				

• **Book publication by Faculty**

S. No	Name of the author	Name of the Book	Year Published	Publisher's details
1	Mr. M. Thiyagesan	Solid State Drives	2016	A.R. Publication
2	Mr. M. Thiyagesan	Special Electrical Machines	2016	A.R. Publication
3	Mr.S.Balamurugan	Circuit Theory	2013	Sruthi Publication
4	Mr.M.Ganesan	Electromagnetic Theory	2014	Sruthi Publication
5	Dr.Y. Sukhi	Conference Proceeding	2012	ISBN: 978-81-920889-4-5 (R.M.K Engineering College)
6	Dr.Geetha Ramadas	Conference Proceeding	2013	ISBN: 978-81-920889-4-5 (R.M.K Engineering College)
7	Dr.S. Anita	Conference Proceeding	2014	ISBN: 978-81-920889-4-5 (R.M.K Engineering College)

• **Journal Publication by Students**

S. No	Student Name	Title of the paper	Conference/Place	Prizes Won, If any
1	P. Karthick	Automatic fire extinguisher	International association of Engineering and technology	Paper Published
2	R.G.Lokesh K. Hareesh AkilChowdry	Automated emergency response on road accidents	International journal of advanced research trends in Engineering and Technology	Paper Published
3	Suresh. N	Smart farming using IOT	International Journal of Engineering research and Technology	Paper Published

4	Yaswitha.K.G Yazhini.T.S	Renewable Cars	National conference Proceedings'16 "Recent trends in Power Electronics and Power systems" ISBN: 978-81-920889-4-5 (R.M.K Engineering College)	Paper Published
5	V.Elambharathi M.Dinesh	Secured Transmission using DNA Based ECC Algorithm	National conference Proceedings'16 "Recent trends in Power Electronics and Power systems" ISBN: 978-81-920889-4-5 (R.M.K.Engineering College)	Paper Published
6	R.Yogapriya M.Yuvasri	Image and Video Processing Applications	International journal of innovative research in computer and communication Engineering ,2014	Paper Published
7	Suresh. N Suraj Pillai	Biomass Supported Solar Thermal Hybrid Power Plant	International Journal of Science research,2014	Paper Published
8	G.Sudharsan J.Vethaprasad	Implementation of Advanced DC-DC Converter in front end of Induction Motor Drives	National conference Proceedings'15 "Recent trends in Power Electronics and Power systems" ISBN:978-81-920889-4-5 (R.M.K Engineering College),2015	Paper Published
9	V.Balaji K.Dinesh kumar	Simulation of left shunt unified power quality conditioner	National conference Proceedings'15 "Recent trends in Power Electronics and Power systems" ISBN:978-81-920889-4-5(R.M.K Engineering College),2015	Paper Published

10	D.Lavanya A.Mounica	Augmenting li-fi bandwidth using opti system transducer	National conference Proceedings' 15 "Recent trends in Power Electronics and Power systems" ISBN:978-81-920889-4-5 (R.M.K Engineering College)	Paper Published
11	Mohamed wasim Ansari C.Mohan	A Fuzzy logic based soft starting of induction motor	National conference-SKCET, Coimbatore,2014	Paper Published
12	Gowtham Hemnath Ilansuriayan	Dye Sensitized Solar Cell	National conference-SKCET, Coimbatore,2014	Paper Published
13	Dhanush Gowtham raj Diwakar	Nano sensors in Medical field	International conference, Nehru institute of engineering, Coimbatore,2014	Paper Published
14	C.P Thamaraimannan S Thiyagarajan	High efficient DC-to-DC conversion using solar Resonant Converter	National conference Proceedings' 14 "Recent trends in Power Electronics and Power systems" ISBN:978-81-920889-4-5 (R.M.K Engineering College)	Paper Published
15	Akalya Karthiga P	Enhancing the Performance of Solar Panel by Temperature Monitoring Water Cooling	National conference Proceedings' 14 "Recent trends in Power Electronics and Power systems" ISBN:978-81-920889-4-5 (R.M.K Engineering College)	Paper Published

20. Areas of consultancy and income generated

S. No	Title of project for consultancy	Faculty Name	Amount (Rs.)
1	Optimal Pulse Width Modulation For Dual-Inverter Fed Induction Motor Drive	Dr.Manojkumar	100,000
2	Photovoltaic Driven High-Precision Temperature Controllable Peltier cooler	Dr.GeethaRamadas	100,000
3	PVM Technique for Microbial Inactivation Under Pulsed Electric Field"	Ms. A.Alhamdhu Nisha	100,000
4	Estimation of Fuel Tank Capacity Using Ultra meter	Dr.Y.Sukhi	25,000
5	H.A.N.D.(Human Android Device)	Dr.S.Anita	25,000
6	Cloud Farming	Dr.N.MJothiSwaroopan	100,000
7	Contemporary real time electric meter for supervision of power demand	Ms. Chandlaellis	30,000
8	Monitoring of Sewer Flooding	Ms. M.S Kavitha	100,000
9	Design of controllers for CNC Machines	Mr. S.Balamurugan	10,000
10	Soft switching of DC motor for industries	Ms.Chandla Ellis	23,000
11	Embedded System Design & Development for home appliances	Ms.L.Annie Isabella	20,000
12	Enhancement of fuzzy controllers for Automation	Dr.Y.Sukhi	20,000
13	Automation in system design	Ms. B.Jeyapoornima	25,000
14	Implementation of Arduino IDE for protection	Ms. R.Pavithra	15,000
15	Effect of PWM technique for microbial inactivation under P.E.F. Liquid food preservation	Ms.A.Alhamdhu Nisha	10,000
16	Off-line soft switched LED driver based on an integrated bridgeless boost asymmetrical half bridge c	Dr.NManojkumar	25,000
17	Design of DC drive based on resonant converter system	Dr.Y.Sukhi	50,000

18	Energy Efficient Autonomous solar water pumping system	Mr.S.Balamurugan	70,000
19	Overvoltage protection of motor with enhanced features of numerical relay	Ms.R.Pavithra	35,000
20	A novel control strategy for hybrid energy storage system for variable speed wind turbine generating	Ms.A.Alhamdhu Nisha	40,000
21	E-security locking system	Ms.B.Jeyapournima	25,000
22	Study of electrical performance of fixed position Electrical heaters	Mr.M.Thiyagesan	75,000
23	Monitoring and controlling of three phase induction motor by using PIC Micro controller	Ms.M.Perarasi	20,000
24	Hybrid Energy Systems for rural Electrification	Ms.M.S.Kavitha	70,000
25	Aerodynamical design of wind turbine blades using composite material	Dr.T.Magesh	40,000
26	Self voltage balancing method for multilevel inverter	Ms. Chandla Ellis	35,000
27	A prepaid energy meter for efficient power management using smart reader	Mr.FayazAhamed	40,000
28	Android Application Controlled Bluetooth Surveillance Robot	Ms.M.S.Kavitha	25,000
29	Arduino based smart Exhaust fan	Mr.M.Ganesan	27,000
30	Smart card License using cloud computing	Ms.L.Annie Isabella	42,000
31	Boiler Testing Applications	Dr.S.Anita	30,000
32	Miniaturized Snake Robot	Dr.Y.Sukhi	25,000
33	Energy Efficient Electric Heating using Artificial Intelligence	Dr.N.MJothiSwaroopan	100,000
34	Boiler temperature monitoring using Arduino	Mr.P.Anand	32,000
35	Smart Farming Using IOT Technique	Dr.N.MJothiSwaroopan	50,000
36	Study and Simulation of Standalone PV systems	Mr.P.Anand	25,000

37	Study of Performance improvement in solar panel	Mr. P.Anand	50,000
38	3 level neutral point diode clamped Inverter Fed DTC Induction Motor	Dr.N.Manojkumar	100,000
39	Multilevel Inverter fed Induction Motor Drive	Ms. L.Annie Isabella	25,000
40	Intelligent charge controller for portable electronic device	Ms.V.Karthika	25,000
41	Design of Horizontal Wind Mill	Dr.T.Magesh	50,000

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

a) National Committee

- Industry

Sl. No	Company Name	Type of Board/Council	Faculty Name
1	Vi Micro Systems	Advisory/Academic Council	Dr.S.Anita
2	Alstom Ltd	Advisory/Academic Council	Dr.N.MJothiswaroopan
3	Alstom Ltd	Advisory/Academic Council	Mr.P.Anand
4	Prosdek Solutions	Advisory/Academic Council	Dr.T.Magesh
5	Veiyon power & safety solutions	Advisory/Academic Council	Mr.S.Balamurugan

- Professional Society

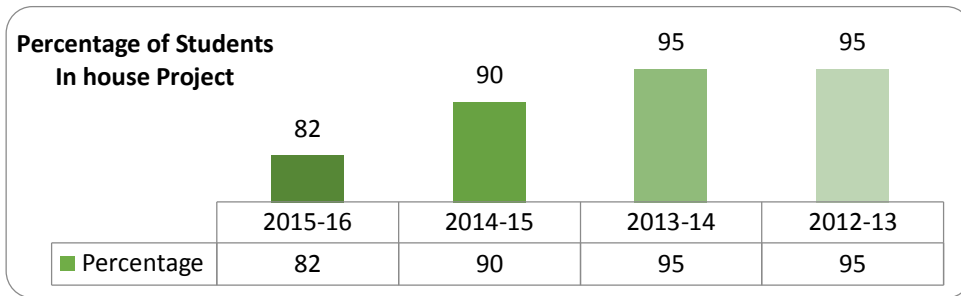
Sl.No	Name of the society	No. of faculty members
1	IE(I)	5
2	IEEE	2
3	ISTE	28

b) International Committee: Nil

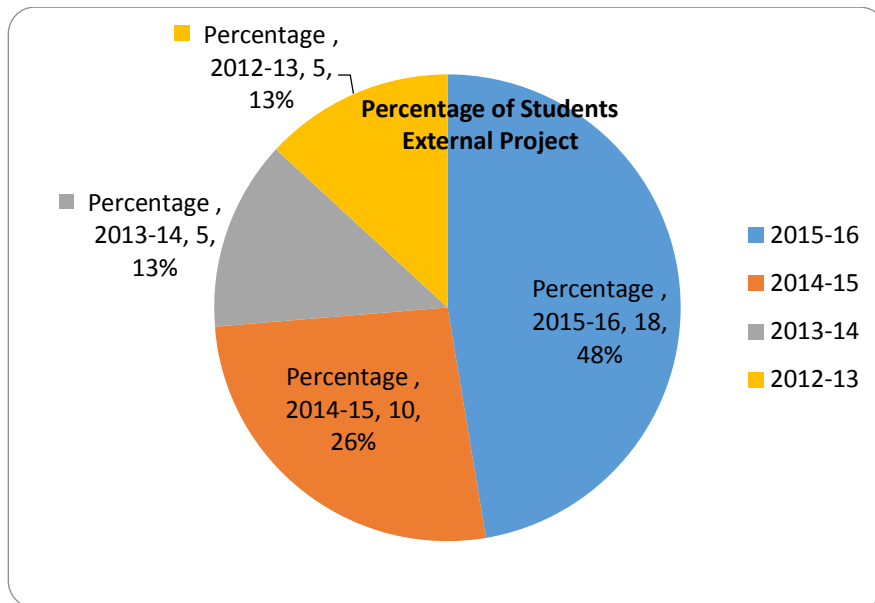
c) Editorial Board : Nil

22. Student Projects

a) Percentage of students who have done in-house projects including interdepartmental/Programme



b. Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies



23. Awards/Recognitions received by faculty and students

Year	AWARDS, RECOGNITIONS BY STUDENTS /STAFFS						
	Students				Staffs		
	University rank UG	University rank PG	Prize winners	Awards	Awards	PhD	100% Result
2012-13	12	7	18	-		1	6
2013-14	10	8	34	7	3	3	4
2014-15	13	2	40	2	1		8
2015-16	15	4	9	1	1	1	16

24. List of eminent academicians and scientists/visitors to the department

S. No	Name of the Resource Person	Name of the Industry & Designation
1	Mr.M.Vijayakumar	Vice president, Voltech group
2	Mr.L.Sai Kiran, (alumni)	Sales and Project Manager, BOSCH Electrical drives India Pvt Ltd,
3	Dr.P.Somasundaram	Professor,CEG, Anna University
4	Mr. J.Dheemanthprabhu	Junior Engineer Texas Instruments
5	Mr.S.Ganesh Kumar	Project Manager-CSC
6	Dr. Christobher Bridges	Professor, Department of Electrical Engineering University of Surrey
7	Mr.Selvakumaran	Sambandan, Project Manager, Nokia Solution and Networks
8	Mr.J.Balamurugan	AE/ IT WING,TNEB
9	Mr.A.Rajesh	System Engineer, Accenture
10	Mr.T.Devaraj	Managing Director BPL Techno vision Pvt Ltd
11	Mr.L.Raja/	Technical Lead ,HCL technologies
12	Mr.D.JohnDurai	/Manager –Technical services ,SIPA India Pvt Ltd
13	Mr.VijayKarthik	Manager Alstom India Pvt Ltd, Chennai
14	Prof.James M Conrad	Professor, Department of Electrical Engineering, University of Surrey

15	Prof John P.R David	Professor, Department of Electrical Engineering, University of Surrey
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25. Seminars/Conferences/Workshops organized & the source of funding

a) National

S. No	Academic Year	National/International conference		National/International workshop	
		Name of the program	Funding Agency	Name of the program	Funding Agency
1	2015-16	Recent Trends in Power Electronics and Power System	RMKEC	National Workshop on power system studies using ETAP & DIG silent	RMK EC
				Seven days FDP on “ Power System Operation & Control”	Anna University
2	2014-15	Recent Trends in Power Electronics and Power System	RMKEC	National Workshop on Autobotz AVR	RMK EC
				One Day National Workshop on “Design of Automotive Robo using Arduino Software	RMK EC
				One Day National Workshop on “Design of Converter using MATLAB	RMK EC
3	2013-14	Recent Trends in Power Electronics	RMKEC	National Workshop on	

		and Power System		power simulation tools on PSCAD & ETAP	
				National Workshop on How to plan write and publish research papers in refereed journals	RMK EC
4	2012-13	Recent Trends in Power Electronics and Power System	RMKEC	Seven days FDP on “ Power System Analysis”	Anna University
				National Workshop on Embedded systems	RMK EC
				National Workshop on Modeling and control of wind energy conversion systems	RMK EC
				National Workshop on power electronics and power systems	RMK EC
5.	2014-15			National Seminar on Automotive Electronics	Systems Engineer
6.	2015-16			National Seminar on Internet of Things	Microtronix system Solution

b) International :

- International Workshop on Optoelectronic Devices and Embedded Systems conducted during Academic year 2013-14
- ii) International Conference on Electrical Engineering and Application funded by IACSIT, Singapore Institute of Electronics, RMKEC conducted on 17th and 18th of December 2011

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.E-EEE (2011-15)	215	215	150	65	88
B.E-EEE(2010-14)	144	144	98	46	90
B.E-EEE(2009-13)	130	130	89	41	87
B.E-EEE(2008-12)	66	66	53	13	90
B.E-EEE(2007-11)	66	66	49	17	96

*M=Male *F=Female

27. Diversity of Students

Degree	% of students from same state	% of students from other states	% from abroad
BE 2012-13	86.6	13.4	NA
BE 2013-14	74	26	NA
BE 2014-15	84.7	15.3	NA
BE 2015-16	81.2	18.8	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civilservices, Defenseservices, etc.?

- In the past four academic years, about 11 students have cleared GATE examination and one student has cleared the Civil Services examination.

29. Student progression

- The UG students get employment through campus selection and Off Campus Selection Process. About 85 students have grabbed the opportunity.
- The culture of Entrepreneurship and Self employment has been encouraged among our students. Ten students have flourished as entrepreneurs.
- Students has been motivated to do higher studies(both within the country and abroad)

30. Details of Infrastructural facilities

a) Library Total area: 41 sq.m

Number of titles : 1498		Number of volumes: 5141				
Year	Number of new titles added	Number of new editions added	Number of new volumes added	Journal subscription		
				N	I	T
2012 – 2013	153	85	575	12	38	50
2013 – 2014	190	91	602	12	41	53
2014 – 2015	187	82	534	12	48	60
2015-2016	194	68	511	12	46	58

b) Internet facilities for Staff & Students

Name of the Internet provider	Band width	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70 mbps	Yes(Hostel)	Yes	Secured	Available
Reliance communications	220mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

c) Class rooms with ICT facility

- 10 Class Rooms & 1 Seminar Hall with ICT facilities such as,
 - Enabled Computer system
 - LCD projector
 - White board
 - OHP

d) Laboratories

S.No.	Name of the Laboratory with Area	Name of the major equipment
1.	Engineering practices lab/ Electrical circuits lab 82.64 sq.m	Megger, Multi Meters, Digital Voltmeter, CRO
		Simulation Software Pspice / Matlab
		Single Phase Wattmeter, Single Phase Energy Meter
		Iron box, fan and regulator, emergency lamp
		Energy meters, Single & Dual RPS, Function Generator
		Desk top Ammeter all ranges & Micro ammeter
2.	Control & Instrumentation laboratory 41.32sq.m	LVDT Calibrating kit & jig
		Measurement of Iron Loss & Permeability
		Maxwell's inductance bridge with DIB
		Bourdon tube Trainer
		ADC-8 Channel Standard module
		Instrumentation Amplifier
		Energy meter, Watt meter
		Current Transformer
		DC position control
		A.C. Servo position control system
		P,PI,PID, Controller --Process Control Simulator
		Speed measurement and closed loop control of A.C. Servo motor
		D.C.Servo Motor Speed Torque Unit
		Transfer Function of Armature controlled DC shunt motor
		Transfer Function of separately excited DC shunt generator
		Digital Storage Oscilloscope
Microcontroller based Speed Control of Stepper Motor Pc with Mat lab software		
3.	Linear and digital integrated circuits	Digital logic I.C Trainer kit
		CRO Scientific

	laboratory 41.32sq.m	Audio Oscillator& Digital Function Generator – 3 MHz
		Linear power supply+/- 5V
		Single & Dual RPS
4.	Electrical machines laboratory – I 429 sq.m	DC Series Motor
		DC Shunt Motor
		DC Compound Motor
		DC Shunt Motor Coupled With DC Compound Generator
		DC Shunt Motor Coupled With DC Shunt Generator
		DC Shunt Motor Coupled With Cylindrical Pole Alternator
		Single Phase Induction Motor
		Transformers 1kVA & 2kVA & 3 KVA
		Single phase resistive load
		Three phase resistive load
		Single phase auto transformer
		Three phase auto transformer
		Rectifier
		A/C Panel Board
		D/C Panel Board
Transformer Winding Machine		
Transformer Oil Testing Kit		
5.	Power Electronics lab/Electronics Lab 41.32sq.m	Single phase Half and fully controlled bridge rectifier kit
		Three phase SCR Half and Fully controlled bridge converter with I/M
		IGBT Chopper - 4 quadrant, IGBT based PWM inverter
		Transient characteristics of MOSFET and SCR
		Parallel Inverter with power supply and rheostat
		Single phase PWM inverter - IGBT based
		Three phase PWM inverter - IGBT based with motor- 0.5 HP

		SCR based voltage and Current Commutation module
		AC voltage regulator using SCR, TRAIC, DIAC
		MOSFET based step up and step down chopper
		Resonant DC to DC converter
		SCR based voltage and current chopper
		AC voltage regulator using SCR & TRAIC
		Single phase Half controlled bridge converter –with R &RL load kit
		Single phase fully controlled bridge converter –with R &RL load kit
		Three phase SCR Half controlled Rectifier
		Single phase fully controlled bridge converter
		Single half phase controlled bridge converter –with RL load kit
		Three phase half & fully controlled bridge converter
		Single phase half-wave rectifier using SCR
		Ammeter Digital, D.C. Voltmeter of all ranges
		Audio Oscillator& Digital Function Generator 3MHz
		CRO Scientific, Single & Dual RPS
6.	Electrical Machines Laboratory II 429 sq.m	Synchronous Induction motor 3HP
		DC Shunt Motor Coupled With Three phase Alternator
		DC Shunt Motor Coupled With Three phase Slip ring Induction motor
		Three Phase Induction Motor with Loading Arrangement
		Single Phase Induction Motor with Loading Arrangement
		Tachometer -Digital/Analog
		Single Phase Auto Transformer
		Three Phase Auto Transformer
		Single Phase Resistive Loading Bank
		Three Phase Resistive Loading Bank
		Capacitor Bank

		SPST switch
		Software C,C++
7.	Power System Simulation Laboratory 374 sq.m	Software C,C++, MATLAB, ETAB, AU POWER LAB
		Computers with configuration of I7 Processor, 4G RAM, 500GB Hard Disc
8.	Project/ Research Laboratory 41.32sq.m	Software C,C++ and many prototyping platforms.
		Speakers, Head set
		Printer
		ADC and DAC card,
		8254 timer counter, Interface boards, Soldering machine,
		MATLAB, ETAB-installed personal computers

e) **COE lab** (To be implemented from the next academic year)

- Automotive Electronics Lab
- Embedded systems Lab(WIPRO)

31. Number of students receiving financial assistance from college, university, Government or other agencies

Year	Number of students received financial assistance							
	College Management		Government					
	Scholarship	Fees exemption	BC	MBC	SC	ST	First graduate	Tuition fee exemption
2012-2013	7	1(ME-PED)	54	28	20	1	110	-
2013-2014	8	2	52	30	23	-	132	7
2014-2015	9	4	53	29	38	-	131	18
2015-2016	8	3	39	30	32	-	102	32
2016-2017	7	3	46	24	31	-	83	31

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

S.No.	Name of the enrichment Programme	Date	Speaker
1	Lecture on “Evolution of Series Motor to Three Phase Induction Motor”	20-6-2015	Mr.M.Vijayakumar, Vice president, Voltech group
2	Lecture on “Introduction to Arduino to Electrical Drives control”	20-06-2015	Mr.L.Saikiran, (alumni) Sales and Project Manager, BOSCH Electrical drives India Pvt Ltd,
3	Lecture on “ Smart Grid protection ”	28-8-2015	Mr.S.K.Mohan, Director, Citadel controls pvt ltd
4	Lecture on “Analysis of Power System”	04-7-2015	Dr.P.Somasundaram, Professor,CEG, Anna University
5	Lecture on “Introduction To Electronic Devices And Circuits “	20-06-2015	Mr. J.Dheemanthprabhu, (alumni) JuniorEngineer, Texas Instruments
6	Lecture on “Dynamics of Power System”	13-02-2016	Mr.S.Ganesh Kumar, Project Manager-CSC
7	Lecture on “Small Satellites At Surrey Space Centre”	04-2-2016	Dr. Christobher Bridges Professor,Department of Electrical Engineering University of Surrey
8	Lecture on “Path to Successful Startups”	13-02-2016	Mr.S.Manivannan, Entrepreneur-Nivi Robotics
9	Lecture on “Electronics Circuits and Networks”	05-02-2016	Mr.SelvakumaranSambandan,Project Manager, Nokia Solution and Networks
10	Lecture on “Challenges In Transformer Erection	26-8-2015	Mr.J.Balamurugan AE/ IT WING, TNEB
11	Lecture on “How To Prepare Our Self For An Interview...?”	25-8-2015	Mr.A.Rajesh (alumni), System Engineer, Accenture
12.	Lecture on Opto Electronic Devices and Embedded Systems	3.1.2014	Prof.James M Conrad Professor, Department of Electrical Engineering University of Surrey

13	Lecture On “Communicate or Complicate”	10.8.13	Mr. Clamant Fernando, COE Born to Fly., Chennai.
14	Lecture on Sculpt yourself	24.9.2013	Mr. Balamurali, Sculpt Associations

33. Teaching methods adopted to improve student learning

- Audio-visual presentation for some courses.
- Pedagogy Activity based learning for some courses
- Mini projects (Individual and group based projects)
- Invited guest lectures are regularly arranged
- Remedial classes for slow learners
- Assignment for analytical skill improvement
- Industrial visits
- Content beyond syllabus
- Online certification course-NPTEL
- Online Aptitude Test
- Internship/Inplant Training

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The Department promotes Institutional Social Responsibility through institution neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students. The department is committed to social responsibility, by carrying out its mission

1. The department aims at providing an atmosphere of holistic development of students thereby transforming them into responsible citizens.

2. It aims at pursuing excellence towards creating students with high degree of intellectual, professional and cultural development to meet the national and global challenges.

3. The department is conscious of its role in campus community connection, well being of its neighborhood and has initiated a number of community development activities. These activities include:

- Tree plantation initiated by NSS
- Sewage treatment plant / water reuse
- Plastic free campus
- Green campus
- Environmental Science and Engineering Course

- Industrial visits to water treatment plants
- Awareness programmes initiated by NSS
- Blood Donation Camps initiated by NSS
- Rain Water Harvesting
- Awareness workshop on Renewable Energy

35. SWOC analysis of the department and Future plans

STRENGTH

- Well qualified and experienced team as teaching faculty
- Laboratory Equipped with the state of the art equipments
- PG (M.E) program started in 2006 which helps in better Research activities
- Recognized research centre(M.S/PhD) by Anna University and faculty are carrying out their research
- Strong Team Work in the Department.
- Very Good placement record
- IEDC cell motivation for Innovative Project Works and startups
- Incubation centre-MSME sponsored
- Centers of Excellence in Embedded Systems and Automotive Electronics

WEAKNESS

- Number of PhD holders is less, however, most of the M. Tech qualified Faculty members are pursuing PhD Part- time.
- Less number of funded projects/consultancy.
- Less number of interdisciplinary projects/consultancy
- Less participation in National/International level student competitions

OPPORTUNITY

- Upgrading M. Tech qualified faculty to PhD (Engg.)
- Departmental Research facility to be enhanced
- Faculty members to be deputed for specialized training
- Encourage faculty to apply for funded project
- Encourage Junior faculty to publish papers in high quality Journals
- Encourage faculty to publish books
- Encourage students to participate in national level competitions

CHALLENGES

- Filling the gap between industry expectations and syllabus.
- Improving core industry placement
- Creating entrepreneurs
- Continue to maintain the excellent standards

FUTURE PLANS OF THE DEPARTMENT

- To establish industry / academic interactions or collaborations with reputed organizations
- Provide better opportunities for our faculty and students to engage in Professional consultancy services to the government as well as multinational sectors.
- To encourage the students to become entrepreneurs.
- To promote student exchange program for higher Semester students.
- Strengthening of linkages with DST, AICTE, and UGC etc. for contributing towards the productive socio-economic growth of our Nation.
- Patenting the innovative research work carried out in the department.

Evaluative Report of

Department of Electronics and Communication Engineering

1. **Name of the department** : Electronics and Communication Engineering
2. **Year of Establishment** : 1995
3. **Names of Programmes / Courses:**

S.No	Name of the Programme	UG, PG, Ph.D., Integrated Masters; Integrated Ph.D
1.	B.E (Electronics and Communication Engineering)	UG
2.	M.E. (Applied Electronics)	PG
3.	M.S. / Ph.D.	Research Programme affiliated to Anna University

4. **Names of Interdisciplinary courses and the departments/units involved:**

S.No	Name of the Subject	Name of the Department
1.	Transforms and Partial Differential Equations	Department of Mathematics
2.	Probability and Random Processes	
3.	Object Oriented Programming and Data Structures	Department of CSE
4.	Computer Architecture	Department of CSE
5.	Computer Networks	Department of CSE
6.	Electrical Engineering and Instrumentation	Department of EEE
7.	Environmental Science and Engineering	Department of S&H
8.	Principles of Management	Department of MBA

5. **Annual/ semester/choice based credit system (programme wise)**

S.No	Name of the Programme	Annual/ semester/choice based credit system
1.	B.E (Electronics and Communication Engineering)	Semester based credit system
2.	M.E. (Applied Electronics)	
3.	M.S. / Ph.D.	Not Applicable

6. Participation of the department in the courses offered by other departments

S.No	Title of the Course	Semester	Name of the Department
1.	Electronic Devices	02	Science and Humanities
2.	Circuit Theory	02	
3.	Analog and Digital Communication	03	Computer Science Engineering
4.	Analog and Digital Communication	03	Information Technology
5.	Digital Signal Processing	06	Computer Science Engineering
6.	Communication Engineering	06	Electrical and Electronics Engineering

7. Courses in collaboration with other universities, industries, foreign institutions:

S.No	Title of the Course	Collaboration with Universities/ Industries/ Foreign Institutions
1.	Cisco Certified Network Associate(CCNA)	CISCO Network Academy, Coimbatore.
2.	Telecom Technology	Wipro Technologies, Chennai.
3.	ARM University Programmme	ARM, Bangalore.
4.	Internet of Things	PTC Think Works, Pune.
5.	Mixed Signal Processing	Texas Instruments, Bangalore.

8. Details of courses/programmes discontinued (if any) with reasons:

M.E VLSI Design

Reason:

- Overall poor admission to PG courses throughout the state during 2015-16
- Poor placement for PG students

9. Number of Teaching Posts

S.No	Description	Sanctioned	Filled
1.	Professors	4	7
2.	Associate Professors	6	7
3.	Asst. Professors	18	28

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualificatio	Designation	Specialization	No.of Years of	No. of Ph.D. Students guided for the
Dr K A Mohamed Junaid	Ph.D.	Professor & Principal	Information and Communication Engineering	24	-
Dr.R.Sivakumar	Ph.D.	Professor & Head	Signal and Image	19	2
Dr. Elwin chandra Monie	Ph.D.	Professor	Image Processing	38	-
Dr. T. Blesslin Sheeba	Ph.D.	Professor	Reconfigurable Cryptographic Processor	24	-
Dr. T. Suresh	Ph.D.	Professor	VLSI Design	24	-
Dr. T.V. Padmavathy	Ph.D.	Professor	Wireless Sensor Networks	20	-
Prof. M. Somasundaram	M.E	Professor	Wireless Sensor Networks	36	-
Mr. S. J. Kumaresan	M.E	Associate Professor	VLSI Design	20	-
Ms. D. Jothi	M.E	Associate	VLSI Design	18	-
Ms. P. Latha	M.E	Associate Professor	Applied Electronics	18	-
Mr. T. Joel	M.E	Associate Professor	Digital Communication	17	-

Ms. B. Sarala	M.E	Associate Professor	Digital Communication & Networking	16	-
Ms. V. Sumitra	M.E	Associate Professor	Applied Electronics	15	-
Mr. G. Babu	M.E	Associate Professor	Medical Electronics	12	-
Ms. K. Sumathy	M.E	Assistant Professor	VLSI Design	11	-
Ms. B. Jeya Poornima	M.E	Assistant Professor	Applied Electronics	13	-
Mr. R. Babuji	M.E	Assistant Professor	VLSI Design	10	-
Mr. A. Sivakumar	M.E	Assistant Professor	Applied Electronics	9	-
Ms. K. Jeevitha	M.E	Assistant Professor	Applied Electronics	6	-
Ms. J. Jasmine Hephzipah	M.E	Assistant Professor	Applied Electronics	12	-
Ms. M. Rhevathi	M.E	Assistant Professor	Network Engineering	5	-
Mr. R. Sathya Vignesh	M.E	Assistant Professor	VLSI Design	4	-
Mr. M. Ashok	M.E	Assistant Professor	Applied Electronics	4	-
Mr. P. Gunasekhar	M.E	Assistant Professor	Embedded Systems	8	-
Ms. S. Sanjana	M.E	Assistant Professor	VLSI DESIGN	3	-
Mr. M. Nareshkumar	M.E	Assistant Professor	Medical Electronics	7	-
Ms. J. Joselin Jaya Sheela	M.E	Assistant Professor	Communication Systems	11	-
Mr. A. Darwin Nesakumar	M.E	Assistant Professor	Communication Systems	5	-
Mr. Jagadeesh Babu	M.E	Assistant Professor	VLSI Design	6	-

Ms. L. Saranya	M.E	Assistant Professor	VLSI Design	1	-
Ms. M. Sarumathi	M.E	Assistant Professor	Communication Systems	2	-
Mr. P. Venkatesh	M.E	Assistant Professor	VLSI Design	2	-
Mr. M. Shyam	M.E	Assistant Professor	Applied Electronics	10	-
Ms. M. Aswini	M.E	Assistant Professor	Communication Systems	8	-
Mr. D. S. Bhargava	M.E	Assistant Professor	VLSI Design	3	-
Ms. M. Rekha	M.E	Assistant Professor	Applied Electronics	4	-
Ms. S. Rosaline	M.E	Assistant Professor	VLSI Design	7	-
Ms. T. Sindhuja	M.E	Assistant Professor	Embedded Systems	14	-
Ms.V.Saranya	M.E	Assistant Professor	Applied Electronics	-	-
Ms.A.K.Malathy	M.E	Assistant Professor	Applied Electronics	-	-
Ms.Nasreen Fathima	M.E	Assistant Professor	Applied Electronics	-	-
Ms.Prathima	M.E	Assistant Professor	Applied Electronics	2	-

11. List of senior visiting faculty : Dr.D. Ebenezer

12. Percentage of lectures delivered and practical classes handled (Programme wise) by temporary faculty : Nil

13. Student -Teacher Ratio (programme wise)

S.No	Programme	No. of Students	Faculty Strength	STR
1.	B.E (ECE)	540	39	13.85
2.	M.E. (Applied Electronics)	36	3	12.0

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

S.No	Staff	Sanctioned	Filled
1.	Academic support Staff (Technical)	7	7
2.	Administrative Staff	1	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Qualification	Ph.D.	PG(M.E)
Number of Faculty	6	36

16. Number of faculty with ongoing projects from

a) National

b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received.

S.No	Funding Agency	Title of the Project	Grants received (Rs)
1	AICTE/RPS	Design and Implementation of Cognitive Radio Test bed	15,00,000

18. Research Centre /facility recognized by the University

The department has been recognized as Research Centre by Anna University, Chennai since 2007 to offer Ph. D. & M.S. (By Research) programmes.

19. Publications:

Name of the Faculty	Number of publications listed in International Database	Citation Index	h-index	I index	Impact Factor
Dr.R.Sivakumar	40	234	10	10	0.5-2
Dr.T.Suresh	30	2	1	--	--
Dr.T.Blesslin Sheeba	6	1	1	--	--
Dr.T.V.Padmavathy	26	25	3	1	0.32-1.09
Ms.M.Sarumathi	18	25	3	1	0.41-2.08

Chapter in Books/ Books Reviewed

Name of the Faculty	Title of the Book	Name of the Publisher	Chapter
Dr.R.SivaKumar	Signals and Systems	TMH	1
Dr.T.V.Padmavathy	Signals and Systems	TMH	3

20. Areas of consultancy and income generated

S. No.	Year	Title of Consultancy Project	Funding Agency	Amount (Rs. In Lakhs)
1.	2014-2015	Smart Agro Automation system using Intel Galileo	INTEL	0.74
2.	2014-2015	Multi core co-processor for IoT engine with Andescore	ANDES TECHNOLOGY	75.00
3.	2014-2015	BLDC motor control with PWM using PSoC development Kits	CYPRESS	0.52
4.	2014-2015	Pick and place demo using Pololu 3 pi Robot	ARM EMBEDDED TECH PVT LTD	0.01

5.	2014-2015	Driving pattern analysis system using ARM Freedom	ARM	0.14
6.	2014-2015	Noise monitor in classroom environment using ST DSP LiB Expansion bundle	ARM	0.06
7.	2014-2015	Smart eco driving system using Freescale Cup Kit	SHENOY SYSTEMS	0.99
8.	2014-2015	Implementation of RISC – V using vertex 6 (VIVADO 2014)	XILINX	1.2
9.	2014-2015	Elderly fall detection using Mbed Application shield	ARM	0.53
10.	2014-2015	CAN message Demo using Mbed kits	ARM	0.2
11.	2014-2015	AC controller through Bluetooth low energy of ARM Mbed nRF 51822	ARM	0.05
12.	2014-2015	Advanced ATM Security Using Touchalytics	Enix Technology India Pvt Ltd	0.10
13.	2014-2015	Analysis On Telephony Signalling System	Vi Micro Systems, Chennai	0.10
14.	2014-2015	A Smart Portable DC Charger For Cell Phones and Laptops	Vi Micro Systems, Chennai	0.10
15.	2014-2015	Automatic Rail Inspection	Spectrum Controlled Pvt Ltd	0.15
16.	2014-2015	Car Accident Avider Using Brain Wave Sensor	Elmack Engineering Services	0.10
	2014-2015	Wireless Based Mining Safety Using Zigbee	Vi Micro Systems, Chennai	0.10
17.	2013-2014	Custom made data acquisition system with sd card for all using mbed nxp lpc 1768 kits	INTEL	0.58

18.	2013-2014	Voice based ON-OFF control of an appliance using easy VR and Mbed NXP LPC 11U24	ANDES TECHNOLOGY	1.11
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21. Faculty as members in a) National committees b) International committees c)

Editorial Boards

Name of the Faculty	Faculty as members in a) National committees b) International Committees c) Editorial Board
Dr.R.SivaKumar	Members in Various International Conferences held across Globe as a Organizer and Session Chair
Dr. T.Suresh	International Journal on Fuzzy Systems and Data Mining
	Journal of Electrical and Engineering Technology
Dr.T V.Padmavathy	African Journal of Engineering Research (AJER).
	Journal of Engineering and Technology Research, Academic Journals, Victoria Island, Lagos
	International Journal of Computer Engineering Research, Academic Journals, Victoria Island, Lagos.
	Journal of Internet and Information Systems, Academic Journals, Victoria Island, Lagos
Mr.S. Joshua Kumaresan	International Journal of Computer and Electrical Engineering (IJCEE)

22. Student projects

Academic Year	% of In House Project	% of Outside Project	
		% Research	% Industry
2012-13	25	70	5
2013-14	29	63	8
2014-15	40	54	6
2015-16	48	43	9

23. Awards / Recognitions received by faculty and students

S.No	Year	Name of the Faculty/Students	Name of the Award
1	2012-13	Dr.S.Ramasamy, Professor	Authorized ARM Programmer
		Mr.K.V.P.Siddhartha Surya , II Year Mr.M.Vijay, II Year Mr.P.Srinath, , II Year Mr.J.Jayaraj, , II Year Mr.N.Veerakumar, , II Year Mr.P.Seetharam, , II Year Mr.S.J.SatheeshVarma, , II Year	Rs Rs.20,000 of Cash Award From Frugal Laboratories
2	2014-15	Abirami G, IV Year Jayashree M, IV Year Jeevitha N, IV Year	Best Project Award National Level Design contest conducted by ARM
		Kishore V A, II Year	Robot competition organized by JAY ROBOTRIKZ
3	2015-16	A.Vinith Kannan, III Year L.Vishal, III Year S.Gokulnath , III Year S.Saran, III Year	Industrial Internet of things, M/s. Schnieder Electric India Pvt. Ltd.
		Karmegaselvi.P, Kalaivani.K, Keerthana.C,	Best Paper Award Johnson Controls (I) Pvt.Ltd
		Vineeth Kannan of III year	Innovative app challenge Award ICTACT 2016
		Nivetha P, IV year Karmegaselvi P, IV year Harish Ram IV year Praveen Raj IV year	All India Winners in Asia-pacific and All India level
		Vinoth Rajendran, ME.VLSI Balan Premkumar, ME.VLSI	First Prize in Synopsys Custom Design Contest

24. List of eminent academicians and scientists / visitors to the department

Guest name	Guest/designation	Guest company
Mr. Jebin Vijai	Lead Design Engineer	Qual Comm India, Bangalore
Mr. J. Jayakumar	Sr.IC Design engineer	ATMEL ,Chennai
Mr. Ratnakar Rao	General Manager	Samsung , Bangalore
Mr.Vignesh	Trainer	TCS
Mr. Ratnakar Rao	General Manager	Samsung , Bangalore
Mr.Dheemanth Prabhu	Analog Application Engineer	Texas Instrument

25.Seminars/ Conferences/Workshops organized & the source of Funding

a)National b) International

S.No	Year	National /International Conference	Workshop/Seminar/FDP	
			Programme	Funding Agencies
1	2012-13	Digital Convergence	Workshop on Timing Closure and Functional verification in VLSI design	RMKEC
			Workshop on PLC and Embedded Systems	
2	2013-14	Digital Convergence	Digital Image Processing	Anna University
			Hands on Training Design Finishing for Chip Tape Out	AICTE
3	2014-15	Digital Convergence	Assistive Patient Monitoring Cloud Platform for Active Health Care Applications	RMKEC
4	2015-16	Digital Convergence	FDP on Medical Electronics	Anna University

26. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			Male	Female	
UG (2009-13)	135	132	91	41	90.15
UG (2010-14)	142	142	85	57	87.32
UG (2011-15)	140	139	84	55	96.24
UG (2012-16)	205	201	103	98	93.5
PG (2011-13)	35	35	18	17	100
PG (2012-14)	35	35	13	22	100
PG (2013-15)	31	31	15	16	100
PG (2014-16)	26	26	8	18	100

27. Diversity of Students

Year	Name of the Course	% of students from the same	% of students from other	% of students from abroad
2012-13	UG	69.65	30.34	--
2013-14		74	26	--
2014-15		72	28	--
2015-16		73	27	--
2012-13	PG	100	--	--
2013-14		100	--	--
2014-15		100	--	--
2015-16		100	--	--

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Year	No. of Students
2012-2013	7
2013-2014	8
2014-2015	9
2015-2016	9

29. Student progression

Student progression	Against % enrolled
UG to PG	11 %
PG to M.Phil.	--
PG to Ph.D.	15 %
Ph.D. to Post-Doctoral	--
Employed	80 %
Campus selection	5%
Other than campus recruitment	
Entrepreneurship/Self-employment	4%

30. Details of Infrastructural facilities

a) Library

No of Books		No of National Journals	No of E-Journals
Volumes	Titles		
11206	2609	18	50

b) Internet facilities for Staff & Students

Name of the Internet provider	Bandwidth	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70 mbps	Yes	Yes	Secured	Available
Reliance communications	220mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

c) Class rooms with ICT facility:

S.No	No. of Class rooms	Usage	Facilities available in each room
1.	10	Class room for UG (ECE)	LCD Projector & Screen, Black Board
2.	2	Class rooms for PG	LCD Projector & Screen, Black Board
3.	1	Seminar Hall	AC, Internet, LCD Projector, White Board

d) Laboratories

S.No	Name of the Lab	Area of room in Sqm	Major Equipments
1.	Analog and Digital Circuits Laboratory	76.26	Dual Trace Oscilloscope 20 MHz
2.	Circuit and Simulation Integrated Laboratory	76.26	Dual Trace Oscilloscope 20 MHz
3.	Linear Integrated Circuit Laboratory	76.26	
4.	Communication System Laboratory	76.26	Storage Oscilloscope (0-60MHz)
5.	Digital Signal Processing Laboratory	76.26	Signal Processing Tool Box (software - 5 Licenses), Control System Tool Box (Software - 5 Licenses), ADSP 2181 DSP workstation
6.	Microprocessor Laboratory	76.26	Stepper Motor Interface Card and Controller, Traffic light interface, Traffic Light Controller
7.	Networks Laboratory	75	
8.	VLSI Design Laboratory	76.26	Vector Network Analyzer, FPGA IP Core Development Kit

9.	Optical and Microwave Laboratory	76.26	Advanced fiber optic communication trainer Laser Trainer kit, Microwave Benches
10.	Embedded Laboratory	76.26	Embedded design and Development Kit
11	Circuits and devices Laboratory	82.64	Dual Trace Oscilloscope 20 MHz

31. Number of students receiving financial assistance from college, university, government or other agencies

Year	No. of Students
2012-2013	207
2013-2014	244
2014-2015	261
2015-2016	235

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

S.No	Date	Title	Name of the Guest
1.	28.06.2014	LTEadvancements for broadband communication	Mrs.Subashini.V, Team leader, Microchip, Chennai
2.	21.06.2014	ARM processors	Mr.Jebin vijai, Lead design engineer, Qualcomm India, Bangalore.
3.	28.06.2014	VOIP	Mr.R.Senthil Kumar, Design Engineer, Asmaitha Wireless, Chennai.
4.	28.06.2014	Embedded Electronic system design	Mr.J.Jayakumar, Sr.IC design engineer, ATMEL, Chennai.

5.	28.06.2014	Technical skills needed for project management	Mrs.V.Subashini, Microchip India, Bangalore.
6.	19.07.2014	Verification in VLSI testing	Mr.Manavalan, Verification Engineer, Flow logic, Chennai
7.	19.07.2014	Advanced microprocessors	Mr.Dinesh, Automotive Engineer, Fiat Chrysler, Taramani, Chennai.
8.	26.07.2014	3G & 4G network	Mr.Ratnakar Rao, General Manager, Samsung, Bangalore.
9.	26.07.2014	How to prepare for placements?	Mr.Anand,TCS, Mr.Siddharth,ATCATEL, Mr.Vignesh,TCS, Ms.V.Jyotsna,Mclane (Alumni 2010 batch)
10.	26.07.2014	How to prepare a resume?	Ms.G.Sangeetha,TCS, Ms.Surya Prabha,TCS
11.	26.07.2014	High speed internet services	Mr.Ratnakar Rao, General Manager, Samsung,Bangalore.
12.	26.07.2014	Career opportunities	Mr.Velkumar
13.	18.02.2015	Introduction to firmware development skills	Mr.Saravana Pandian, Founder chairman,Embian technologies,Madurai.
14.	21.02.2015	Ocean electronics	Dr.R.Venkatesan, Ph.d, Scientist-G & Group head, Ocean Observation systems, NIOT, Ministry of Earth sciences, India.
15.	20.06.2015	Recent advances in analog electronics and testing tools	Mr.Dheemanth Prabhu, Analog Application engineer,Texas Instruments.

16.	04.07.2015	Future of digital signal Processing and its research works.	Mr.Madhan Mohan, Senior engineer, Jasmine infotech, Chennai.
17.	19.09.2015	An insight into recent technologies & Aids for real time implementation	Mr.Sivashankar, Researcher, VIT, Chennai.
18.	20.02.2016	Placement cake	Mr.Saiaditya,Entrepreneur,Founder, Aspiron technologies
19.	05.03.2016	Talk on Placement	Ms.Purushotham Priya, (Alumni 2015)
20.	29.03.2016	Applications of Drones	Mr. M. Jagadeesh Chandar, Maavan Aeronautics Pvt. Ltd
21.	16/7/16	Higher studies at US	Ms.Shwaathi Deenadayalan(Alumni 2016)
22.	27/7/16	Career opportunities	Mr. Balasubramanian M B General Manager, TPE –MFG, Wipro Technologies Ltd. Chennai
23.	20/8/16	Gateway to core concerns	Er.Vinoth(RMK Alumni 2011) Senior Engineer, ROBERT BOSCH
24.	27/8/16	Hitchhiker's guide to ARM architecture	Er.Ganesh Skandha, Senior Project Engineer,ECON Systems
25.	27/8/16	PrePlacement Talk	Mr.Vikram(RMK Alumni 2007), Senior Engineer, TCS
26.	16/9/16	Higher studies at US	Parthiv Thummala(RMK Alumni 2012),Technical University of Chemnitz, Germany
31.	24/9/16	An Insight into FPGA	Er.Amarnath, (RMK Alumni 2014) Er.Lakshmanan(RMK Alumni 2014)

			Embedded Engineer, Cornet Technologies, Chennai Er.Manoj Kumar Senior Embedded Engineer.
32.	24/9/16	Roadmap for a Successful Engineer	Er.Amarnath, (RMK Alumni 2014) Er.Lakshmanan(RMK Alumni 2014) Embedded Engineer, Cornet Technologies, Chennai Er.Manoj Kumar Senior Embedded Engineer.
33.	23-02-2017	Electronic Design Automation	Ms. N.Shanthi, Technical Support, CADD Centre, Chennai

33. Teaching methods adopted to improve student learning

- In order that students and faculty get industry perspectives, guest lectures are often organized
- Video lectures for theory subjects.
- Value added courses
- Inter department and intra department competitions such as mini project and paper presentation.
- Industrial visits

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Training given to fishermen in Pulicat on servicing solar powered lantern
- Participation in National Service Scheme (NSS) Activities
- Participation in Blood Donation Camps.

35. SWOC analysis of the department and Future plans

Strengths:

- Qualified faculty with strong emphasis to research
- Excellent faculty retention ratio
- Meritorious and highly motivated students
- Graduates with excellent industry placements, University ranks and enrollment in higher education programs in top global universities
- IEDC(Innovation and Entrepreneurship Development Centre) encourage students to innovate, design, implement and incubate startups

Weaknesses:

- Affiliating University limits introducing courses in new and emerging areas
- Improvement required in Industry Institute Interaction

Opportunities:

- Demand within the country for quality higher education
- Possibility of industrial consultancy by faculty
- Scope for inter-disciplinary research

Challenges:

- To create continual visibility of research with industry
- To leverage the intellectual property generated for economic gain

Future Plans

- Commercialization of products developed through incubation
- Supporting the Institute for earning autonomy/university status

Evaluative Report of

Department of Electronics and Instrumentation Engineering

1. **Name of the department** : **Electronics and Instrumentation Engineering**
2. **Year of Establishment** : **1998**
3. **Names of Programmes / Courses offered:** **B.E - Electronics and Instrumentation Engineering (UG)**
4. **Names of Interdisciplinary courses and the departments/units involved:**

Sl.No	Interdisciplinary courses	Semester	Departments/ units involved
1	HS6151 - Technical English – I	01	S&H
2	MA6151 - Mathematics – I	01	S&H
3	PH6151 - Engineering Physics – I	01	S&H
4	CY6151 - Engineering Chemistry – I	01	S&H
5	GE6151 - Computer Programming	01	CSE
6	GE6152 - Engineering Graphics	01	MECH
7	HS6251 - Technical English – II	02	S&H
8	MA6251 - Mathematics – II	02	S&H
9	PH6251 - Engineering Physics – II	02	S&H
10	CY6251 - Engineering Chemistry – II	02	S&H
11	GE6251 - Basic Civil and Mechanical Engineering	02	CIVIL& MECH
12	MA6351 - Transforms and Partial Differential Equations	03	S&H
13	MA6459 - Numerical Methods	04	S&H
14	CS6456 - Object Oriented Programming	04	CSE
16	CS6401 - Operating Systems	07	CSE

5. **Annual/ semester/choice based credit system (programme wise):** Semester Based Credit System

6. **Participation of the department in the courses offered by other departments**

Sl.No	Interdisciplinary courses	Sem ester	Departments/unit s involved
1	GE6252 - Basic Electrical & Electronics Engineering	01	CIVIL& MECH
2	EE6352 - Electrical Engineering and Instrumentation	03	ECE
3	EC2311 - Communication Engineering	05	EEE
4	EC2351 - Measurements and Instrumentation	06	ECE
5	IT6502 - Digital Signal Processing	06	CSE
6	CS2403 - Digital Signal Processing	07	CSE

7.Courses in collaboration with other universities, industries, foreign institutions, etc.

With industries

- Johnson Controls Private Ltd *
- Mitsubishi Electric India Pvt. Ltd *
- NI Systems (INDIA) Pvt Ltd., Bangalore*
- KPIT Technologies Ltd.
- Nittan India Tech Pvt. Ltd. Hitachi Solutions India Pvt. Ltd. *
- Tata Consultancy Services Ltd
- Ericsson India Pvt. Ltd.
- IBM - Centre of Excellence
- Infosys Technologies Ltd
- Wipro Technologies Ltd
- HCL Technologies Ltd
- Cognizant Technology Solutions
- Soliton Technologies Private Limited
- FLSmith Pvt. Ltd
- EMC2
- Poseidon Solar Services Private Limited
- NEXGTECH RESEARCH LABS
- CISCO SYSTEMS (INDIA) Pvt Ltd
- Keane India Ltd
- VI Microsystems

With other Universities / Organizations:

- Missouri State University, USA*

- The Institute of sound and Vibration Research, University of Southampton, England*
- Government of India - Department of Information Technology National Informatics Centre
- North Carolina Agricultural & Technical State University*
- Business English Certification (BEC) at the Vantage level by Cambridge English Language Assessment (CELA), University of Cambridge
- GATEFORUM*
- The Princeton Review, Manya Group*
- Cambridge English Language Assessment , Part of the University of Cambridge*
- University of Technology, Sydney*
- AKAD.Die Private-Hochschulen GmbH. Fachhochschule Stuttgart-Staatlich anerkannt, Maybachstr*
- University of Leicester*
- University of Southern Queensland, Australia*
- World Institute for Engineering and Technology Education (WIETE), Melbourne - Australia* MoU signed for collaboration

Center of Excellences:

- Building Management System (BMS)
- Factory automation
- Zoho Enrich Programme
- Automotive Electronics
- Embedded systems
- PRP (Java)
- Digital Enterprise-Mobility
- Big Data Analytics

8.Details of courses/programmes discontinued (if any) with reasons: -NA

9.Number of Teaching posts

	Sanctioned	Filled
Professors	02	02
Associate Professors	02	02
Asst. Professors	12	13

10.Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./ M. Phil. etc.,)

S.No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D Students guided for the last 4 years
1	Dr. Gnanasekaran T	B.E.,M.E, Ph.D	Professor and Head	Information and Communication Engineering	25 Years 9 Months	1
2	Dr. Vijayalakshmi S	B.E.,M.E, Ph.D	Professor	Information and Communication Engineering	18years 4 Months	0
3	Dr. Kavitha P	B.E.,M.E, Ph.D	Associate Professor	Electrical And Electronics Engineering	19 Years 5 Months	-NA-
4	Mr. K. Vijay Anand	B.E, M.S	Associate Professor	Communication And Signal Processing	11 Years 8 Months	-NA-
5	Mr. Marimuthu G *	B.E, M.E, (Ph.D)	Assistant Professor	Power Electronics And Drives	7 Years 4 Months	-NA-
6	Mr. Bharath Singh J *	B.E, M.E, (Ph.D)	Assistant Professor	Embedded System Technologies	6 Years 5 Months	-NA-
7	Ms. Chairma Lakshmi K.R	B.E, M.E	Assistant Professor	Control And Instrumentation Engineering	3 Years 7 Months	-NA-
8	Ms. Kayalvizhi M	B.E, M.E	Assistant Professor	Applied Electronics	4 Years 5 Months	-NA-
9	Ms. Malathy N	B.E, M.E	Assistant Professor	Power Electronics And Drives	3 Years 4 Months	-NA-
10	Ms. Vinosha Sweety M	B.E, M.E	Assistant Professor	Control And Instrumentation Engineering	3 Years 6 Months	-NA-

11	Dr. C. Priya	B.E.,M. E, Ph.D	Assistant Professor	Electrical And Electronics Engineering	3 Years	-NA-
12	Ms. Praveena B	B.E, M.E	Assistant Professor	Applied Electronics	1 Year 7 Months	-NA-
13	Ms. Preethy V	B.E, M.E	Assistant Professor	VLSI Design	5 Years 3 Months	-NA-
14	Mr. Kesavan Ethiraj	B.E, M.Tech	Assistant Professor	Process Dyanmics And Control	3 Years 5 Months	-NA-
15	Ms. Britto Sumitha M	B.E, M.E	Assistant Professor	Applied Electronics	10 Years 11 Months	-NA-
16	Mr. Premkumar D	B.E, M.E	Assistant Professor	Control And Instrumentation Engineering	5 Months	-NA-
17	Ms.T. Yoga Priya	B.E.,M. E.	Assistant Professor	Control And Instrumentation Engineering	3 Months	-NA-

* Pursuing Ph.D

11. List of senior visiting faculty: NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NIL

13. Student -Teacher Ratio (programme wise): 1:14.1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned	Filled
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Academic support staff	03	03
Administrative staff	01	01

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/ PG.

Highest Qualification	No. of Faculty
Ph.D	04
P.G (M.E/M.S/M.TECH)	13

16. Number of faculty with ongoing projects from

- **National: 04**

Sponsored Research					
Sl.No	Research Title	PI	CI	Sponsored company	Amount
1	Effective Communication for Hearing Impaired	Dr. Gnana sekaran T	Mr. K. Vijay Anand	E-Dot Technologies	Rs.80000
2	Intelligent Neonatal Incubator Using Internet of Things	Dr. Vijaya lakshmi S	Ms. K. R. Chairma Lakshmi	igreen Technologies	Rs.50000
3	Efficient Scheduling of Multiple Mobile Chargers Using Wireless Sensor Networks	Dr. Kavitha P	Ms. Kayalvizhi M	Trend Automation Limited	Rs.60000
4	Over head cable fault detection system	Dr. C. Priya	Ms. Malathy N	MKM Technologies	Rs.70000

- International funding agencies and grants received: NIL\

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: NIL

18. Research Centre /facility recognized by the University: NA

19.Publications:

Sl No.	Name of the faculty	IJ	NJ	IC	NC	Book / monograph / chapter
1	Dr. Gnanasekaran T	28	3	31	36	Book -2
2	Dr. Vijayalakshmi S	4	-	1	1	-
3	Dr. Kavitha P	4	-	1	1	-
4	Mr.Vijay anand K	-	-	-	3	-
5	Mr. Marimuthu G	-	-	-	1	-
7	Ms. Chairma Lakshmi K.R	5	-	6	-	-
8	Ms. Kayalvizhi M	2	-	-	-	-
9	Ms. Malathy N	2	-	1	3	-
11	Dr. C. Priya	5	-	3	1	-
13	Ms. Preethy V	-	-	1	1	-
14	Mr. Kesavan Ethiraj	5	-	2	-	-

- **Number of papers published in peer reviewed journals:**

National: 3 & International: 55

- **Chapter(s) in Books- 2**

- **Citation Index**

Range: 01 to 19

Total Citation: 72

- **SNIP**

Range: Min: 0.028, Max: 5.397

- **SJR**

Range: Min: 0.12, Max: 4.878

- **Impact Factor**

Range: Min: 0.23, Max: 6.029

20.Areas of consultancy and income generated:

Sponsored Research

2012-13	Wireless Keyboard for the visually impaired	Ms.V.Tamil Selvi Associate Professor	IEDC	Rs. 1, 00, 000
	Air Plant Modernisation using Programmable logic controller	Dr.K.A.Mohamed Junaid Professor & Head	E-Dot Technologies	Rs. 1, 00, 000
	Automated rail crack detection system using image processing	Mr.K.Vijay Anand Assistant Professor	IEDC(E DoT)	Rs. 1, 00, 000
2013-14	Automatic Energy meter Billing system	Dr.Mohamed Junaid K A	Trend Automation	Rs. 1, 00, 000
	Optimisation of Power using Solar Powered PLC	Ms. Tamil Selvi V	iGreen Technologies	Rs. 50, 000
	E- virtual panels for global industrial control	Ms. Vijayalakshmi S	E-Dot Technologies	Rs. 30, 000
	Autonomous BLIMP	Mr. Vijay Anand K	IEDC	Rs. 1, 00, 000
2014-15	Desiccant technology in air coolers	Ms M.Britto Sumitha Assistant Professor	IEDC	Rs. 1, 00, 000
	Intelligent Wheel Chair with Advanced Direction Control	Mr.G.Marimuthu Assistant Professor	IEDC	Rs. 1, 00, 000
	Automatic Regeneration of resin in strong acid cation vessel in DM plant	Mr.K.Vijay anand Associate Professor	Trend Automation	Rs. 75, 000
2015-16	Automated variable sized bottle filling process using PLC	Ms.M.Kayalvizhi Assistant Professor	Mitsubishi Electric India Private Limited	Rs.108000
	HI-TECH Baby	Ms.K.R.Chairma Lakshmi, Assistant Professor	igreen Technologies	Rs.20000
	Portable Voice recognition and motion detection smart	Dr.S.Vijayalakshmi Professor	E-Dot Technologies	Rs.30000

	box using Android application			
	Efficient solar photovoltaic power generation system using sun tracking system and MPPT algorithm	Mr.G.Marimuthu Assistant Professor	MKM Technologies	Rs.20000
	Thermo Electric mobile charging with DC-DC Boost converter using peltiers	Dr.P.Kavitha Associate Professor	IEDC (NSTDEB)	Rs.100000
	TOTAL			Rs.10,33,000
Consultancy				
	Building Management System with PLC and SCADA	Ms.S.Vijaya Lakshmi Associate Professor	iGreen Technologies	Rs. 60, 000
2012-13	PLC based control and monitoring of solid material handling conveyors in Fertilizer Plant using Load Cell	Mr.K.Vijay Anand Assistant Professor	E-Dot Technologies	Rs. 1,50, 000
	Monitoring Impurities and Removal in Oil Pipes	Dr. Kavitha P Associate Professor	EPR Lab	Rs. 75,000
	Monitoring and Energy Management of Engine test bed using PLC & SCADA	Mr.G.Marimuthu Assistant Professor	iGreen Technologies	Rs. 80, 000
2013-14	Wind Powered System	Dr.Mohamed Junaid K A	Trend Automation	Rs. 1, 00, 000
	Optimal Control to enhance operational	Mr.G. Marimuthu	EPR Lab	Rs. 75,000

	efficiency of AC motor in Belt Conveyor systems			
	Automation of Devices Through Bluetooth Technology	Dr. Kavitha P	Microtronix	Rs. 50,000
2014-15	Automation of controlling Temperature of oil in 400 T Hydraulic Press	Mr.K.Vijay Anand Assistant Professor	Woodenfab	Rs. 50,000
	Interlocks in compressors using PLC	Dr.S.Vijayalakshmi Professor	Trend Automation	Rs. 65, 000
	Efficient solar photovoltaic power generation using robust wet wiper system	Ms.K.R.Chairmalakshmi Assistant Professor	iGreen Technologies	Rs. 70, 000
2015-16	Industrial Monitoring and controlling of plant through IoT remotely using A mobile App	Mr.K.Vijayanand Associate Professor	Sri Sapthagiri Paer mills, Tirunelveli	Rs.30000
	RFID - based system for school children transportation safety	Mr.J.Bharath Singh Assistant Professor	Rana Tech, Salem	Rs.20000
	Smart car for toxic gas monitoring in large scale petro chemical plants	Dr. Kavitha P Associate Professor	E-Dot Technologies	Rs.20000
	Wireless infant monitoring device for prevention of	Dr.K.A.Mohamed Junaid Professor & Head	Trend Automation	Rs.30000

	sudden infant death syndrome			
	Portable 4-20 mA current source for Boge Compressor	G.Marimuthu, Assistant Professor	Trend Automation	Rs.40000
TOTAL				Rs.09,15,000

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

Sl No.	Name	National Societies/Committees	International Societies/Committees
1	Dr. Gnanasekaran T	ISTE,IE(I)	IEEE, IET, IAENG, ACEEE, IDES, CSTA, IRED, ACM, ISRD
2	Dr.VijiyaLakshmi S	ISTE,ISOI,IE(I)	IEEE
3	Dr. Kavitha P	ISTE,ISOI	-
4	Mr. K. Vijay Anand	ISTE,ISOI, ISRD	-
5	Mr. Marimuthu G	ISTE,ISOI	-
6	Mr. Bharath Singh J	ISTE,ISOI, ISRD	-
7	Ms. Chairma Lakshmi K.R	ISTE,ISOI, ISRD	-
8	Ms. Kayalvizhi M	ISTE,ISOI, ISRD	-
9	Ms. Malathy N	ISTE,ISOI	-
10	Ms. Vinosha Sweety M	ISTE,ISOI	-
11	Dr. C. Priya	ISTE,ISOI, ISRD	-
12	Ms. Praveena B	ISTE,ISOI	-
13	Ms. Preethy V	ISTE,ISOI	-
14	Mr. Kesavan Ethiraj	ISTE, ISRD	-
15	Ms. Britto Sumitha M	ISTE,ISOI	-
16	Mr. Premkumar D	-	-
17	Ms.Yoga Priya T	-	-

22. Student projects

- Percentage of students who have done in-house projects including inter departmental/programme **90%**

- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies **10%**

23 Awards / Recognitions received by faculty and students

Students	Faculty
07	01

STUDENTS:

- Ms Mahalakshmi.C, Ms Malaika Afra Taj.S, Ms Syed Ali Fathima.S, Gayathiri.M (TechKnockers Team) of Pre-Final Year - EIE, R.M.K. Engineering College were awarded Certificate of Appreciation: Commandable Performance Award in the 2nd Mitsubishi Electric Cup held on 17-18 February 2017,Pune
- Ms Malaika Afra Taj.S, received Best student award during 16 th ISTE T&P Section Annual convention on 4 th March 2017.
- Mr G.Shantha Kumar, P. Mr Sree Krishna and Mr E.Vaidhyanathan received the Best Students Project Award 2013 from Indian Society of Technical Education, New Delhi during ISTE annual convention for engineering students
- Mr G.Shantha Kumar, Mr P. Sree Krishna and Mr E.Vaidhyanathan received the TCS Best Students Project Award 2013

FACULTY:

- Dr. Gnanasekaran T**, Professor and Head received **DISTINGUISHED ALUMNI AWARD** for achievement in Academics & Research on VITAA Day, 26th January 2014 held at VIT University, Vellore.

24.List of eminent academicians and scientists / visitors to the department

- Mr.Kedar Kulkarni, IIT Madras, Chennai
- Dr.S.P.Joy Vasantha Rani, MIT, Chennai
- Dr. P.Nirmal Kumar, CEG, Chennai
- Mr.Sudharsan, CEG, Chennai
- Mr.S.Bhagyaraj, CEG, Chennai
- Mr.D.Vaithyanathan, CEG, Chennai

25.Seminars/ Conferences/Workshops organized & the source of funding

Type	No of STTP	No of Conference	No of SDP	No of seminar	No of workshop	Source of Funding
National	-	4	1	1	1	AICTE, NI, CSIR, ISOI
Institutional	1					NI

26.Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
U.G –B.E (2013-14)	66	66	38	24	93.94
U.G –B.E (2014-15)	72	72	36	29	90.28
U.G –B.E (2015-16)	71	71	42	24	92.95
U.G –B.E (2016-17)	126	126	73	45	93.65

*M = Male *F = Female

27.Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
U.G –B.E (2012-16)	93.65	6.35	NA
U.G –B.E (2013-17)	96.67	3.33	NA
U.G –B.E (2014-18)	93.55	6.45	NA
U.G –B.E (2015-19)	93.22	6.78	NA

28.How many students have cleared national and state competitive examinations such as

NET, SLET, GATE, Civil services, Defense services, etc.?

Sl.No	Name of the Competitive Examination	Number of Students Cleared
1.	TANCET	10
2.	Any other competitive examination(CAT/MAT/GRE)	19

29.Student progression

Student progression	2013-14	2014-15	2015-16	2016-17
UG to PG	9	10	6	2
PG to M.Phil.	NA	NA	NA	NA
PG to Ph.D.	0	0	0	0
Ph.D. to Post-Doctoral	0	0	0	0
Employed Campus selection	82.47	81.67	74.16	60
Entrepreneurship/ Self-employment	1	2	1	1

30.Details of Infrastructural facilities

- **Library:**

Library	Number of Text Books	Number of Journals
Main Library	92,739	101
Department Library	776	6

- **Internet facilities for Staff & Students:** All the hostels are WiFi enabled campus. The college premises connected with high speed LAN

Name of the Internet provider	Band width	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70 mbps	Yes	Yes	Secured	Available
Reliance communications	220 mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

Class rooms with ICT facility: 5

- Seminar hall with LCD and OHP projectors is also available

Laboratories:

- 4 laboratories for carrying out the lab activities;
- 2 Centre of Excellence lab

Factory Automation

- LabVIEW

SlNO	Hall No	Name of The Laboratories	Available floor area (Sq.m)
1	PV004	EI6612 - Process Control Lab	199
2	PV205	GE6162 - Engineering Practices lab, EE6211- Electric Circuits Laboratory	100
3	PV206	EC6361- Electronics Laboratory, EE6311 - Linear & Digital Integrated Circuits Laboratory, EI6511- Transducers and Measurements Laboratory	100
4	PV207	EI6611 - Industrial Instrumentation lab, EI6711 - Instrumentation System Design Laboratory	119

31. Number of students receiving financial assistance from college, university,

Government or other agencies

Year	Government Scholarship						Management scholarship from College
	BC	MBC	SC	ST	FG	TF (Exempt)	

2012-13	22	13	12	0	66	0	5
2013-14	27	17	16	1	73	5	5
2014-15	31	19	19	1	76	8	6
2015-16	31	31	20	1	57	21	6

BC / MBC/ SC/ ST- Community Scholarship

FG-First Graduate Scholarship

TF- Tuition Fee Exemption

32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts

	2012-13	2013-14	2015-16	2016-17
Student enrichment programme	10	12	12	12

33. Teaching methods adopted to improve student learning

- On line lectures from NPTEL
- On line lectures from Swayam by AICTE
- Invited guest lectures are regularly arranged for two per semester
- Industrial visits are arranged in relevance with subjects for two per semester
- Intra department paper presentation contest
- Content beyond syllabus study
- Mini projects in the form of individual and group based projects
- Encouraged to publish final year projects in conference/seminars/journals
- Corrective classes for slow learners

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The Department promote Institutional Social Responsibility through institution with neighbourhood community network, which make the student engagement, contributing to good citizenship, service orientation and holistic development of students. The department is committed to social responsibility, by carrying out its mission in the following areas for students:

- Involving in NSS Camps
- Involving students in Blood Donation Camps
- Participation in inter and intra-college symposiums –Programming contest, paper presentations, project presentations etc.
- Participation in student welfare activities
- Both management and students helped the people nearby villages during flood and

storm by disturbing food and water.

- Acquiring memberships in different societies like ISOI, IE(I), and IEEE etc.,
- Participation in cultural events and competitions.
- Active participation in department level and University level Students associations.
- Organization of national level symposium as part of students' Association activities.
- Encourage the students to participate in contest organized by industries.
- Encouraging the students to do mini project and paper presentation. for faculty it has
- Participation in administrative activities
- Participation in student welfare activities
- Helping students in association and club activities

35.SWOC analysis of the department and Future plans

STRENGTHS

- Clean, green and amicable working environment.
- Experienced, dedicated and highly qualified faculty members.
- Excellent Infrastructure and Lab facilities
- Very Good result and placement support.
- University Rank holders
- Good support from non-teaching staff
- Strong bonding and a good relationship among teacher and students
- Teacher Mentors: Each class has three Mentors, who are Faculty members of the Dept.
- Strong Team Work in the Department
- Content Beyond Syllabus study
- Industry ready skill development programs
- Higher education guidance
- Competitive exam coaching
- Classes for slow learners.
- Special Coaching: Technical, soft skill, HR skill
- Constant encouragement given for faculty members in pursuing research leading to Ph.D.
- Arranging periodical Entrepreneurship Development Programme to meet the socio economical demands

WEAKNESS

- No scope of updating of syllabus as the Institute follows the syllabus prescribed by Anna University as it's an affiliated college
- Funding opportunities by Government agencies.

OPPORTUNITIES

- With existing infrastructure M.E course may be started

- Students placement in reputed Public limited companies/organizations
- Preparing students for GATE, CAT and other competitive exams and in-house Refresher Course for campus placement
- Skill development programs to prepare the students industry ready through centre of excellence.

CHALLENGES

- Placement of students in core companies
- Students with diverse background
- Job Market slowdown/ recession
- Constant changes in technology
- Improving student's skills in interdisciplinary areas

FUTURE PLANS OF THE DEPARTMENT

- To have research tie-ups with national and international reputed institutions / industries / organizations.
- Patenting the innovative research work carried out in the department.
- To encourage the students to become entrepreneurs.
- Strengthening of linkages with DST, AICTE, IGCAR, CSIR, BRNS, UGC etc. for contributing towards the productive socio-economic growth

Evaluative Report of Department of Mechanical Engineering

1. **Name of the Department** : Mechanical Engineering
2. **Year of Establishment** : 1995
3. **Names of Programmes** : Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)

S.No.	Names of Programmes	Courses
1	UG	Mechanical Engineering
2	PG	M.S by Research (Recognized centre by Anna University)
3	Ph.D	by Research (Recognized centre by Anna University)

4. Names of Interdisciplinary courses and the departments/units involved

S.No.	Interdisciplinary Course	Department
1.	Transforms and Partial Differential Equations	Science and Humanities
2.	Strength of Materials	Mechanical Engineering
3.	Fluid Mechanics and Machinery	Mechanical Engineering
4.	Electrical drives and Control	Electrical and Electronics
5.	Statistical and Numerical Methods	Science and Humanities
6.	Environmental Science and Engineering	Mechanical Engineering
7.	Professional Ethics in Engineering	Mechanical Engineering
8.	Principles of Management	Mechanical Engineering
9.	Total Quality Management	Mechanical Engineering
10.	Engineering Economics	Mechanical Engineering
11.	Entrepreneurship Development	Mechanical Engineering

5. Annual/ semester/choice based credit system (programme wise)

- Semester based Credit system

6. Participation of the department in the courses offered by other departments

S.No.	Course Name	Department
1.	Engineering Graphics	General Engineering (CSE, IT, EEE, ECE, E&I, CIVIL)
2.	Applied Engineering Thermodynamics & Fluid Mechanics	Electronics and Instrumentation
3.	Power Plant Engineering	Electrical and Electronics
4.	Basic Civil and Mechanical Engineering	General Engineering (CSE,IT,EEE,ECE,E&I)

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Name of the course	Industry/University
Creo Modeling software Training	Parametric Technology Corporation, Bangalore
Winchill PLM software Training	Cyber Metric services India Pvt. Ltd., Bangalore
Java Programming	Ethnus, Bangalore

8. Details of courses/programmes discontinued (if any) with reasons: - NIL

9. Number of teaching posts

	Sanctioned	Filled
Professors	04	04
Associate Professors	06	06
Asst. Professors	21	23

10. Faculty profile with name, qualification, designation, specialization, (D.Sc. / D.Litt. / Ph.D. M.Phil. etc.,)

S.No	Name	Qualification	Designation	Specialization	Experience	No. of Ph.D. Stud.
1	Dr. K.R.Senthil Kumar	M.E., Ph.D	Professor & Head	Thermal Engineering	22.1	1
2	Dr.K.Chandrasekaran	M.E., Ph.D	Professor & Dean	Design (Composite Laminates, FEA)	48.7	7
3	Dr. S.Sambath	M.E.,Ph.D	Professor	Production Engineering	21.3	-
4	Dr. A.Kadirvel	A.M.I.E., M.E., Ph.D.	Professor	Industrial Engineering	18.9	1

5	Dr. R.Suresh Kumar	M.E., Ph.D.	Associate Professor - II	Thermal Engineering	16.6	
6	Mr. C.Jayabalan	B.Tech., M.E. (Ph.D.)	Associate Professor - I	Manufacturing Engineering	20.7	
7	Mr.M.Balakumar	M.E., (Ph.D)	Associate Professor - I	Industrial Engineering (Quality Engineering and Management)	21.9	
8	Mr. E.Murali	M.E	Associate Professor - I	Thermal Engineering	17.4	
9	Mr. G.Mahendran	M.E.,(Ph. D.)	Associate Professor -I	Design (CAD)	16.9	
10	Mr. M.Mudhu Krishnan	M.E., (Ph.D)	Associate Professor - I	Manufacturing Engineering	14.8	
11	Mr. S.D.Sekar	M.E.,(Ph. D.)	Assistant Professor - II	Thermal Engineering (Internal Combustion Engineering)	14.7 0	
12	Mr.P.Duraimurugan	M.E. (Ph.D)	Assistant Professor - II	Computer Integrated Manufacturing	16.5	
13	Mr. N.Mohanraj	M.E. (Ph.D)	Assistant Professor - II	Thermal Engineering (Internal Combustion Engineering)	12.9	
14	Mr. R. L.Sankarlal	M.E., (Ph.D)	Assistant Professor - II	Design (CAD)	17.9	
15	Mr. V.Sivakumar	M.E. (Ph.D)	Assistant Professor - II	Thermal Engineering (Internal Combustion Engineering)	9.70	
16	Mr. V.Charles Raj	M.E.	Assistant Professor	Thermal Engineering (Automobile Engineering)	6.9	
17	Mr. G.Kaliraj	M.E.	Assistant Professor	Manufacturing Engineering	6.5	
18	Mr. M.Poornakumar	M.E	Assistant Professor	Engineering Design	4.9	
19	Mr. P.Chiranjeevulu Naidu	M.E	Assistant Professor	Refrigeration & Air Conditioning	4.9	

20	Mr. B.Purushothaman	M.E	Assistant Professor	Manufacturing Engineering	6.4	
21	Mr. K.Muralidharan	M.E. (Ph.D)	Assistant Professor	Thermal Engineering	7.8	
22	Mr.V.Kalaiselvam	M.E	Assistant Professor	Internal Combustion Engineering	6.10	
23	Mr. K.Sengottaiyan	M.E. (Ph.D)	Assistant Professor	Thermal Engineering	8.3	
24	Mr. S.Rajesh	M.E	Assistant Professor	Heat Power Engineering	3.9	
25	Mr. G.Sivakkumar	M.E	Assistant Professor	Thermal Engineering	5.8	
26	Mr.P.J.Lokesh kumar	M.E	Assistant Professor	CAD/CAM	2.10	
27	Mr.S.Shankaranarayanan	M.E	Assistant Professor	Production Engineering	5.11	
28	Mr.K.Thoufiq Mohammed	M.E	Assistant Professor	Engineering Design	2.10	
29	Mr. M.Sivasankar	M.E	Assistant Professor	CIM	2.9	
30	Mr. P.Ramesh	M.E	Assistant Professor	CAD	2.9	
31	Mr. A.L. Naresh Kumar	M.E	Assistant Professor	CAD	-	
32	Mr.A. S. Mohamed Sulthan Ariffen	M.E	Assistant Professor	CAD / CAM	-	
33	Mr. R.Krishnadas	M.E	Assistant Professor	CAD	2	

11. List of senior visiting faculty

S.No	Name of the visiting Faculty
1.	M.Neelakantan, Technical Director cum Advisor, ACE Carbide Tools Pvt. Ltd.
2.	S Krishnakumar, Sr Vice president (Retd.), Lucas TVS

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NIL

13. Student -Teacher Ratio (programme wise)

Number of students	Number of faculty	SSR
480	33	1:14.5

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Staff	Sanctioned	filled
Technical staff	7	7
Administrative staff	1	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

Qualification	Number of faculty
Ph.D	5
PG (M.E/M.Tech.)	28

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

Ongoing projects	Number of faculty	Grant received
National	1	Rs. 1 lakh
International	-	-

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

S.No	Details of Project	Agency	Grants Recieved
1.	Design And Development of Affordable Bed for Preventing the Decubitus Ulcer for Immobile Patients and Elderly Persons	DST	7.4 Lakhs
2.	Process Development for fiber reinforced Thermo plastic Prepregs by film stacking and compression Moulding of FRTP component	DST	18 Lakhs
3.	Modernization of Internal combustion engines laboratory with latest equipment	AICTE	12 Lakhs
4.	Low Cost Bio Diesel Production from Waste Cooking OIL	NSTDEB-DST	1 Lakh
5.	Semi –Automated Vehicle for the Physically Challenged People	NSTDEB-DST	1 Lakh
6.	Solar Irrigation Pump	NSTDEB-DST	1 Lakh

18. Research Centre /facility recognized by the University:

- Yes, Mechanical Engineering Department has been recognized by Anna University as Research Centre to pursue M.S. by Research and Ph.D

No. of Ph.D	Completed	Ongoing
	5	14

The following are the Facilities created in Mechanical Department in various labs which are used for Research work.

S.No.	Name of the Special Equipment	Cost in Rs.
1	Computerized 4 stroke, 4 cylinder Diesel Engine trainer Rig (CRDI) with Data Acquisition system.	12,00,000
2	Mitutoya Make Computerized Measuring machine - CMM.	9,97,500
3	Wear and Friction monitor	4,55,000
4	A0 size HP plotter.	2,00,000
5	Data acquisition system.	3,39,600
6	Compression Moulding Machine with thermal plate for Composites fabrication.	5,70,000
7	Rapid Prototyping Machine.	1,00,000

19. Publications:

- Publication by faculty :

Details	Number
International journals	39 (citation 79)
Monographs	1
Chapter in books	nil
Books edited	2
Books with ISBN/ISSN numbers with details of publishers	1 (June 18, 2013 by CRC Press ISBN 9781439872819 - CAT# K13368)

S.No	Name of Faculty Member	Name of the Journal	Title	Year of Publication	Issue no	Page no	ISSN no	Citation
(2015– 16)								
1.	Dr.K.Chandrasekaran	FME Transactions	Damage Characterization of GFRP Composite on Exposure to Cyclic Loading by Acoustic Emission	2016	Vol 44	139-145	1451-2092	2
2.	Dr.K.Chandrasekaran	Journal of Mechanical Science and Technology	Significance of cyclic loading parameters on the flexural response of the GFRP composites	2016	Vol 30	1976-3824	3127-3136	2
3.	Dr.K.Chandrasekaran	Journal of Testing and Evaluation	Significance of Energy Absorbing Layer in GFRP Composite on Flexural Response	2016	Vol 45	-	-	-
4.	Dr.K.Chandrasekaran	Applied Mechanics and Materials	Effect of cyclic loading frequency on flexural modulus of GFRP laminates with resin rich intermediate layers	2015	Vol 787	543-547	-	2
5.	Dr.K.Chandrasekaran	Applied Mechanics and Materials	Effect of Fibre Volume Fraction on Mechanical Properties of FRTP Laminates produced by Film Stacking Method	2015	Vol 787	632-636	-	1
6.	Mr. G.Mahendran	Applied Mechanics and Materials	Damage Detection in Laminated Composite Beams, Plates and Shells using Dynamic Analysis	Aug 2015	vol.787	901-906	2297-8941	
7.	Mr. G.Mahendran	ASME Digital collections	Damage Detection in Laminated Composite Plates And Shells Using Second Derivatives of Mode Shape Data Through Dynamic Analysis of These Structures	Nov 2015	vol.4B	V04BT04 A037	-	

8.	Mr. C. Jayabalan	Applied Mechanics and Technical Physics	Heat Enhanced by an Exothermic Reaction on a fully developed MHD Mixed convection flow in a vertical Channel	Dec 2016	Vol 57	-	0021-8944	
9.	Mr. S.D Sekar	International Journal of Applied Engineering Research	Optimization and modelling Techniques of Various Dryer – A Review	2016	Vol 10	861-873	ISSN 0973-4562	
10.	Mr. S.D Sekar	Progress in Industrial Ecology, an International Journal	Recent developments in solar energy-based absorption cooling systems	2016	Vol 9	135-143	1476-8917	
11.	Mr. V.SivaKumar	Applied Mechanics and Materials	Effect of heat capacity of basin material and glass cover on distillate yield of single slope passive solar still – A theoretical investigation	Aug 2015	Vol 787	43-47	-	
12.	Mr. V.SivaKumar	Taylor and Francis	Investigation on the effects of heat capacity on the theoretical analysis of single slope passive solar still	Mar 2015	-	-	1944-3994	
13.	Mr. V.SivaKumar	Taylor and Francis	Experimental studies on quality of desalinated water derived from single slope passive solar still	Apr 2015	-	-	1944-3994	
(2014 – 15)								
1.	Dr.K.Chandrasekaran	Applied Mechanics and Materials	A study on machinability performance of silicon carbide particulate reinforced metal matrix composite	2015	Vol 766-767	229-233	-	1
2.	Dr.K.Chandrasekaran	Journal of Structural Engineering	Vibration Analysis on a Composite beam and Damage Identification using Finite Element Analysis	2015	Vol. 41 (5)	484-498	-	2

3.	Dr.K.R.Senthil Kumar	Applied Mechanics and Materials	Study on Mechanical properties of AA6351 alloy reinforced with Titanium di-boride (TiB ₂) composite by in situ casting method	2015	Vol. 787	583-587	1662 - 7482	2
4.	Dr.K.R.Senthil Kumar	Applied Mechanics and Materials	Performance and emission characteristics of a DI diesel engine fuelled with Cashew Nut Shell Oil (CNSO)-diesel blends with Diethyl ether as additive	2015	Vol. 787	746-750	1662 – 7482	5
5.	Dr.K.R.Senthil Kumar	Applied Mechanics and Materials	Preparation and characterization study of phase change materials for thermal energy storage applications	2015	Vol. 787	77	1662 – 7482	5
6.	Dr.T.N.Srikantha Dath	International Journal of Science, Technology and Management	Critical success factors & their Impact factor on knowledge Management in medium sized Manufacturing companies	2015	Vol. 04, Special Issue No. 01	1078 - 1093	2394 – 1537	4
7.	Dr.T.N.Srikantha Dath	Applied Mechanics and Materials	Influence of Experimental environment on the enhancement of ultra fine grain structure with optimum ductility of equal channel angular pressed copper	2015	Vol. 592 - 594	410 - 415	1662 – 7482	3
8.	Dr.T.N.Srikantha Dath	Procedia Engineering	Response of copper to Equal Channel Angular Pressing with different processing temperature	2015	Vol. 97	56 - 63	1877 – 7058	2
9.	Dr. A.Kadirvel	Materials and Technology	“Optimization of the die-sinking micro-EDM process for multiple performance characteristics using the Taguchi-based Grey relational analysis”	2014	Vol. 48, Issue No. 01	27 – 32	1580 – 2949	2

10.	Dr.R.Sureshkumar	International Journal of Engineering and Research	“Thermal performance of thermosyphon heat pipe using CuO nanofluids”	2014	Vol. 09, Issue No. 26	9003 - 9006	1087 – 1090	3
11.	Mr.G.Mahendran	Applied Mechanics and Materials	Damage detection in laminated composite beams, plates and shells using Dynamic Analysis.	Apr 2015	Vol. 787	901-906	1662 – 7482	
12.	Mr.M.Mudhukrishna	Applied Mechanics and Materials	Characterization of glass fibre/carbon fibre hybrid thermoplastics composite laminates fabricated by film stacking method	Apr 2015	Vol. 787	518-522	1662 - 7482	
13.	N.Mohanrajhu	Applied Mechanics and Materials	Numerical heat transfer and pressure drop studies of turbulent Al ₂ O ₃ - Ethylene Glycol / Water nanofluid flow in an automotive radiator tube	Apr 2015	Vol. 787	152-156	1662 – 7482	
14.	V.Sivakumar	Applied Mechanics and Materials	Effect of heat capacity of basin material and glass cover on distillate yield of single slope passive solar still – A theoretical investigation	Apr 2015	Vol. 787	43 - 47	1662 – 7482	
(2013 – 14)								
1.	Dr.K.Chandrasekaran	Procedia Engineering	Taguchi's Optimization of prours Parameters in dry sliding wear of aluminum metal matrices comports	2013	-	-	-	3
2.	Dr.K.Chandrasekaran	Procedia Engineering	Taguchi's optimization of process parameters in dry sliding wear of SiCp reinforced aluminium metal matrix composite	2013	-	-	-	2
3.	Dr.K.Chandrasekaran	Applied Mechanics and Materials	Modelling and Optimization of the Wear Performance of Aluminium Metal Matrix Composite using Response Surface Methodology	2014	Vol 592-594	1336-1340	-	1

4.	Dr.K.Chandrasekaran	Materials and Technology	Optimization of process parameters in dry sliding wear of Al 2219-SiCp composite using Taguchi based Grey relational analysis	2014	Vol.48	361-366	-	1
5.	Dr.K.Chandrasekaran	International Journal of Mechanical and Industrial Engineering	Effect of Solutionising Temperature on Mechanical Properties of Squeeze Cast Al 6082 SiCp Composite	2013	Vol.2(3)	35-40	-	1
6.	Dr.K.Chandrasekaran	Materials and Technology	Influence of precipitation temperature on thrust force and torque in drilling of Al 2219-SiCp composite	2014	Vol. 48	563-569	-	2
7.	Dr.K.Chandrasekaran	Applied mechanics and materials	Optimization in dry sliding wear test of Al 2219-SiCp composite using Taguchi based Grey relational analysis	2014	Vol. 446	296-300	-	1
8.	Dr.K.Chandrasekaran	International Journal of Management Research and Development (IJMRD)	Conjoint analysis: a perfect link between Marketing and product design functions- a review	2013	Vol.3	8-21	2248-9398	2
9.	Dr.K.Chandrasekaran	International Journal of Management (IJM)	Application of VOC translation tools- a case study	2013	Vol 4	24-37	0976 – 6502	2
10.	Dr. A.Kadirvel	European journal of Scientific Research	Investigation on the Quality of Micro Electrical Discharge machined EN – 24 Die Steel using Different Electrodes	2013	Vol. 95, Issue No. 03	316 - 323	1450 - 216X	1

11.	Dr. A.Kadirvel	Materials and manufacturing Processes	Experimental Investigations on the electrode specific performance in micro EDM of die steels	2013	Vol. 28, Issue No. 04	390 - 396	1532 - 2475	2
12.	Dr.R.Sureshkumar	Renewable and Sustainable Energy Reviews	Heat transfer characteristics of nanofluids in heat pipes: A review	2013	Vol. 20	397 - 410	1877 - 7058	1
13.	Dr.R.Sureshkumar	International Journal of Energy Technology and Policy	Simulation studies on performance of micro heat pipes used in laptops	2013	Vol. 09, Issue No. 01	65 - 81	1741 - 508X	2
(2012 – 13)								
1.	Dr.R.Krishnamurthy	International Journal of Precision Technology	An approach for identification of mode in micro grooving of sintered alumina	2012	Vol. 03, Issue No. 01	62 - 81	1755 - 2079	-
2.	Dr.R.Krishnamurthy	Materials and Manufacturing Technology	Minimum Quantity Lubricated Grinding of Inconel 751 Alloy.	2012	Vol. 28, Issue No. 04	430 - 435	1532 - 2475	07
3.	Dr.K.Chandrasekaran	Journal of Applied Mathematics and Mechanics	Thermophoresis and Brownian Motion Effects on Boundary Layer Flow of Nano-fluid in the presence of Stratification due to Solar Energy	2012	Vol. 33, Issue No. 06	765 - 780	0021-8928	19

4.	Dr.K.Chandrasekaran	International Journal of Management	Application of VOC Translator tools-A Case study	2012	Vol. 04, Issue No. 01	24 - 37	0976 - 6510	03
5.	Dr. M.K.Gajendra Babu	International Journal of Alternative Propulsion (Inderscience Journals)	Effect of hydrogen supplementation on the performance, combustion and emission characteristics of a natural gas fuelled S.I. Engine	2012	Vol. 02, Issue No. 02	181 - 196	1741 - 8011	-
6.	Dr.M.K.Gajendra Babu	International journal of Scientific and Engineering Research (IJSER), Vol 3.	Simulation Approach for Quantifying the Homogeneity of In-cylinder Mixture Formation for Port Injected Diesel Fuel for PCCL / HCCL	2012	Vol. 03, Issue No. 09	Pages 1 - 14	2229 - 5518	03
7.	Dr.S.Sekar	Procedia Engineering 38 1828 - 1835	Modelling of Thrust Force in Drilling of plain medium density fibre board panels using RSM	2012	Vol. 38	1828 - 1835	1877 - 7058	04
8.	Dr. S. Sekar	Indian Journal of Science and Technology	Parametric analysis on Delamination in drilling of wood composite panels	2012	Vol. 06, Issue No. 04	4347 - 4356	0974 - 5645	02
9.	Dr.S. Sekar	Advanced Materials Research	Thrustforce Studies in Drilling of medium density fibre board panels	2012	Vol. 622 - 623	1285 - 1289	1662 - 8985	01
10.	Dr. A.Kadirvel	International journal of Mechatronics and manufacturing Systems, vol-5, nos 516, pp.361-384.	A review on various research trends in micro – EDM	2012	Vol. 05, Issue No. 05 - 06	361 - 384	1753 - 1047	01

20. Areas of consultancy and income generated:

Sl.No	Name of the Company	Area of Consultancy	Income Generated in Rupees
1	COMSTAR	Manufacturing	12,000
2	ARUN HEAT SYSTEMS	Engineering	6,000
3	ARUN HEAT SYSTEMS	Engineering	8,000
4	SMART ENGINE MANAGEMENT SYSTEMS	Engineering	10,000
5	MADRAS ENGINEERING INDUSTRIES LTD	Automobiles	12,000
6	NELCAST LTD	Basic Metal and Steel	12,000
7	VEDHA INDUSTRIES	Engineering	10,000
8	S.R.K INDUSTRIES	Manufacturing	17,500
9	S.R.K INDUSTRIES	Manufacturing	12,500
10	R.R.INDUSTRIES	Engineering	15,000
11	R.V.C.N.C ENGINEERING	Manufacturing	21,000
12	HIPCON VALVES PVT. LTD	Manufacturing	24,000
13	HIPCON VALVES PVT. LTD	Manufacturing	15,000
14	S.R.K INDUSTRIES	Manufacturing	18,000
15	R.V.C.N.C ENGINEERING	Manufacturing	19,000
16	HIPCON VALVES PVT. LTD	Manufacturing	13,000
17	S.R.K INDUSTRIES	Manufacturing	15,000
18	HIPCON VALVES PVT. LTD	Manufacturing	22,000
19	VEDHA INDUSTRIES	Engineering	20,000
Total Income Generated			Rs.2,82,000

21. Faculty as members in

- National Committees b) International Committees c) Editorial Boards

S.No.	Name of the Faculty	Board
1.	Dr.K.Chandrasekaran - Dean	Syllabus Committee Member/ Advisory Board, Anna University.
2.		Senate Member of IIITDM, Kanchipuram for 3 Years
3.		Academic Council member of IIITDM, Kurnool

4.	Dr.K.R.Senthil Kumar – Prof and HOD	Syllabus Committee Member, Anna University
5.	Dr.S.Sambath - Prof	Syllabus Committee Member, Anna University

22. Student projects

- Percentage of students who have done in-house projects including inter departmental / programme - 20%
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - 80%

23. Awards / Recognitions received by faculty and students: 6

List of eminent academicians and scientists / visitors to the department

Sl.No	Name of the consultancy	Designation / Organization
1	Mr. S.Krishnakumar	Sr. Vice – President (QA), Lucas TVS Ltd.
2.	Mr.Kalyan Kumar Hatti	DGM-Product Development, Ashok Leyland Limited
3.	Mr. Samuel Selvaraj	Sr. PLM Consultant, Tata Consultancy Services
4.	Mr. Jaganathan Gopalakrishnan	Academic Interface Programme, TCS
5.	Mr.Ravimani	Director, CMS(I)Pvt. Ltd., Bangalore
6.	Mr.B.Shivakumar	Chief Engineer, Engg. Info. Systems, Lucas TVS Limited
7.	Mr. Sankaranarayanan Selthivel	Competency Head-PLM, WIPRO
8.	Mr.Balasubramaniam Irulandy	Sr. Director - Mfg.&Logistics, CTS
9.	Mr.R.S.Ramesh	Divisional Manager-Manufacturing, Wheels India Pvt limited, Pondicherry
10.	Shri. R.Badrinarayanan	General Manager, Wheels India Ltd. Chennai
11.	Shri. Dr.M.Sathya Prasad	General Manager, Advanced Engineering Technical Centre, Ashok Leyland Ltd., Chennai
12	Dr.R.Krishnamoorthy	Retd.Professor IITM, Visiting Faculty R.M.K.Engg College
13	Dr.R.Gajendra Babu	Retd.Professor IITM, Visiting Faculty R.M.K.Engg College
14	Dr.S.K.Malhothra	Retd.Professor IITM, Visiting Faculty R.M.K.Engg College

24. Seminars/ Conferences/Workshops organized & the source of funding:

Sl.No	Events / Conferences /Symposiums/Workshops	Funding
1	Sustainable Innovation & Successful Product Development for a turbulent global market by PDMA India at IIT Madras on 16.12.2013	Sponsored by College
2	International Conference on for a Turbulent Global Market Sustainable Innovation and Successful Product Development by PDMA India at IIT Madras on 16 th and 17 th Dec 2013	
3	Introduction to Noise and Vibration Control on 20 th to 22 nd September 2013 at RMK Engineering College	
4	Customer Inspired Innovation at IIT Madras on 18.12.2013	
5	National Conference on “Recent Innovations in Mechanical Engineering “ (RIME 2013) on 25.02.2013 at RMK Engineering College	College
6	Symposium – Impulse 2013 on 19.08.2013 at RMK Engineering College	
7	National Conference on “Recent Innovations in Mechanical Engineering “ (RIME 2014) on 24.03.2014 at RMK Engineering College	
8	Symposium – Impulse 2014 on 18.08.2014 at RMK Engineering College	
9	National Conference on “Recent Innovations in Mechanical Engineering “(RIME 2015) on 09.03.2015 at RMK Engineering College	
10	Symposium – Impulse 2015 on 31.08.2015 at RMK Engineering College	
11	National Conference on “Recent Innovations in Mechanical Engineering “ (RIME 2016) on 03.05.2016 at RMK Engineering College	
12	Symposium – Impulse 2016 on 26.09.2016 at RMK Engineering College	

25. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass
			*M	*F	
2013-14	240	235	235	-	84.62
2014-15	120	119	116	3	90.09
2015-16	120	120	119	1	93.62

*M = Male *F = Female

26. Diversity of Students:

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
Mechanical Engineering 2012-13	84.5	15.5	Not Applicable
2013-14	77.9	22.1	Not Applicable
2014-15	85.7	14.3	Not Applicable
2015-16	80.0	20.0	Not Applicable
2016-17	85.8	14.2	Not Applicable

27. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

SI No	Name of the Student	Gate Score	Percentile
1	R. Muralidharan (2017)	33.63	86.47
2	Padmanaba Prasanna (2016)	61.65	98.5

28. Student progression:

Student progression	Against % enrolled
UG to PG	10 %
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
Employed • Campus selection • Other than campus recruitment	72 % 10 %
Entrepreneurship/Self-employment	8 %

29. Details of Infrastructural facilities

- Library: The department has a library measuring 330 sq. ft with 645 number of text books, 12 National Journals, 147 International Journals (E-Journals).
- Internet facilities for Staff & Students: 120 Mbps internet (Sharing Basis)
- Class rooms with ICT facility: 7 Class room with Black Board; 7 OHP projectors and one LCD projector is also available
- Laboratories: 12 laboratories for carrying out the lab activities as per Anna University Curriculam and a Centre of Excellence lab for Product lifecycle Management (PLM).

Laboratories:

Sl.No.	Name of the Laboratory	Area in Sq.mts	Major Equipments
1	Engineering Practices Laboratory	450	Lathe
2	Manufacturing Technology Laboratory – I	234	Capstan and Turret Lathe
			Horizontal Milling Machine
3	Manufacturing Technology Laboratory – II	234	Gear Shaper
			Cylindrical Grinding Machine
4	Fluid Mechanics and Machinery Laboratory	234	Francis Turbine
			Kaplan Turbine
5	Strength of Materials Laboratory	120	Universal Testing Machine
6	Thermal Engineering Laboratory – I	234	CRDI Multi cylinder Engine with Data Acquisition
			Low speed Wind Tunnel
7	Thermal Engineering Laboratory – II	100	Air Compressor
			Steam turbine and Boiler
8	Dynamics Laboratory	97	Vibration Generating and Measuring System
9	Metrology and Measurements Laboratory	97	Coordinate Measuring Machine
			Profile projector
10	CAD CAM Lab	122	CNC bed bench turning machine
			Junior Jobber - CNC machine
11	Simulation and Analysis Laboratory	122	CREO 2.0 – 50 users
			Wind chill 10.2 – 50 users
12	Mechatronics Laboratory	122	Hydraulics-Linear Actuation System Trainer with Lab view Interfacing
			Integrated Process Controller trainer

30.Number of students receiving financial assistance from college, University, Government or other agencies

Year	No. of Students	No of Students recd financial aids	Percentage of students benefited
2012-13	725	261	36%
2013-14	875	349	39.88%
2014-15	892	366	41.03
2015-16	823	363	44%

31.Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

	2012-13	2013-14	2014-15
Student Enrichment Programme	21	9	7

32.Details on student enrichment programmes:2014 - 15

S.No	Title	Name Of The Expert	Designation	Industry/ University	Date
1	Different Techniques used for Desalination of Saline Water	Dr.G.Venkatesan	Scientist	National Institute of Ocean Technology, Chennai	25.07.2014
2	Waste Management in view of Global Warming	Dr.K.Anbarasu	Assistant general manager(qc)	Tamil Nadu Cooperative Milk Producers Federation Limited, Aavin,	30.07.2014
3	Production Technology	Mr.S.Nargunam	Founder	Excel Die Castings, Chennai	01.08.2014
4	Stress Management	Er.R.S.Krishnan	Executive Engineer	Government of Tamil Nadu (Municipal Administration Department)	09.10.2014

5	Toyota Production Systems	Mr.R.Narasimhan	General Manager	Wheels India Limited	26.07.2014
6	Role of Mechanical Engineers in Indian Railways	Mr.T.K.Siva Kumar	Senior Engineer	Southern Railway.	18.12.2014
7	Recent Innovations in Diesel Engines	Mr.K.Gopal	Assistant Engineer	Southern Railway	24.01.2015
8	Value Added Course on ANSYS	Mr.G.Mahendran	Associate Professor	RMK Engg College	2 Months
9	Value Added Course on C, C++, Java	Mr.Ponniyun Selvan K	Associate Professor	RMK Engg College	3 Months

2013 - 14

S.No	Title	Name Of The Expert	Designation	Industry/ University	Date
1	Recent trends in power plant	Mr. C.Piraisudi	Senior. Manager,	Areva Renewable Energy India Pvt. Ltd., Chennai.	13.07.2013
2	Recent trends in heat engines	Dr.Gopalakrishnan	Quality control Manager,	Coal India, Bangalore.	19.07.2013
3	Hydraulics and its applications	Mr. Shriram Khannan	Manager Director,	PROSOL Chennai.	20.07.2013
4	Six sigma	Mr. R.S.Ramesh	Senior. Manager,	Manufacturing Wheels India Ltd.	27.07.2013
5	Fuel Injection System	Mr. Babu	Group Head	HIML	21.12.2013
6	Fuel Power Design And Applications	Mr.G.Gopala Krishnan	Senior Consultant	Fluid Power Trainer/Consultant, Chennai	27.12.2013

7	Recent Trends in Welding Techniques	Mr R. Narasimhan	General Manager,	Wheels India, Chennai	04.01.2014
8	SAE Collegiate Club Inauguration	Dr. Aravind Bharadwaj,	Head – Technology (TPDS).	Mahindra Research Valley, Chennai.	12.07.2013
9	Mechanical engineering students' association	Shri. C. Karthikeyan,	Head – HR	Madras Engg. Industries Ltd.	12.07.2013
10	Value Added Course on ANSYS	Mr.G.Mahendran	Associate Professor	RMK Engg College	2 Months
11	Value Added Course on C, C++	Mr. Ponniyun Selvan K	Associate Professor	RMK Engg College	3 Months

2012 - 13

S.No	Title	Name Of The Expert	Designation	Industry/ University	Date
1	Product Life Cycle Design And Development	Dr.K.Ravichandran	Scientist	DRDO, Avadi, Chennai	25.07.2012
2	Recent Advances In Welding Technology	Dr.K.Balasubramaniam	Professor	Annamalai University	28.07.2012
3	Recent Advances In Mechanical Engineering	Dr.S.P.Shivapraksam	Asso.Professor,	NIT, Trichy	22.08.2012

4	Recent Trends In Energy Engineering	Dr.S.Iniyan	Director, IES,	Anna University, Chennai	28.08.2012
5	Mems	Dr.P.Hariharan	Asso.Professor,C EG,DOME,	Anna University, Chennai	08.09.2012
6	Best Practices In Operational Excellence	Mr.T.A.B .Bharathi	Vice President	, Wheels India, Pvt.Ltd. Chennai	08.09.2012
7	Engineering Materials	Dr.K.Balasubramaniam	Professor	NIT, Trichy	29.12.2012
8	Quality systems	Mr.S.Natarajan	General Manager.QA,	Wheels India Ltd.	05.01.2013
9	Bio fuels	Dr. M.Venkata Ramanan	Ass. Professor,	Anna University	11.01.2013
10	Diesel engine challenges & Technologies	Dr.Simachalam Juttu	Senior Research Manager	Mahindra R &D, Mahindra center.	16.02.2013
11	Product design	Mr.A.N.Krishnan Kona	Senior Project Manager,	Wheels India, Pvt. Ltd. Chennai	23.02.13
12	Product Life Cycle Management	Mr.Ramesh Babu Krishnappan	Director of Operation and Engineering,	Texas, U.S.A	01.03.2013
13	Manufacturing Processes	Mr.Ravichandran,	Additional General Manager,	Addison & Co.Ltd.	09.03.2013
14	Impulse '12	Mr.P.Vijayakumar,	Vice President,	Cethar Consultancy Engineering	10.09.2012

15	Design for Manufacture	Mr.K.S.Ramalingam,	DFM & Innovation Consultant	DFM Consultancy, Chennai	28.12.2012
16	Recent Innovations in Mechanical Engineering	Dr.P.A.Lakshminarayanan	Chief Technical Officer,	Simpson and Co. Ltd., Chennai	25.02.2013
17	Bio fuels	Dr. M.Venkata Ramanan	Asso. Professor,	Anna University	11.01.13
18	Diesel engine challenges & Technologies	Dr.Simachalam Juttu	Senior Research Manager	Mahindra R &D, Mahindra center	16.02.13
19	Product design	Mr.A.N.Krishnan Kona	Senior Project Manager,	Wheels India, Pvt. Ltd. Chennai	23.02.13
20	Product Life Cycle Management	Mr.Ramesh Babu Krishnappan,	Director of Operation and Engineering,	Texas, U.S.A	01.03.2013
21	Manufacturing Processes	Mr.Ravichandran,	Additional General Manager,	Addison & Co.Ltd.	09.03.2013
22	Value Added Course on ANSYS	Mr.G.Mahendran	Associate Professor	RMK Engg College	2 Months
23	Value Added Course on C, C++	Mr. Ponniyun Selvan K	Associate Professor	RMK Engg College	3 Months

33. Teaching methods adopted to improve student learning

- PPT using LCD Projector, OHP, Working Models, cut-sections (Machinery), Animation Videos
- Audio-visual presentation for theory and practical classes
- On line lectures from NPTEL
- Invited guest lectures are regularly arranged (2 per semester)
- Industrial visits are arranged in relevance with subject
- Intra department paper presentation contest
- Content beyond syllabus study
- Mini projects (Individual and group based projects) in core subjects
- Research oriented final year projects and Research paper publication in conference/seminars/journals
- Remedial classes for slow learners

34. Participation in Institutional Social Responsibility (ISR) and Extension activities :

NSS

- Involving in NSS Camps
- Involving students in Blood Donation Camps
- Participation in inter and intra-college symposiums –Programming contest, paper presentations, project presentations etc.
- Participation in student welfare activities
- Helping students in association and club activities
- Acquiring memberships in different societies like CSI, IE, IEEE etc
- Participation in cultural events and competitions.
- Active participation in department level and University level Students associations.
- Organization of national level symposium as part of students' Association activities.
For faculty it has
- Participation in administrative activities
- Participation in student welfare activities
- Helping students in association and club activities

35. SWOC analysis of the department and Future plans:

SWOC

Strength:

- Programme Accredited for five years (Re Accreditation under process)
- Platinum category in AICTE-CII Survey
- COE –PLM (Industry sponsored laboratories) for enhanced core placements
- Freedom to introduce new Methodology
- More University Ranks achieved by students annually

Weakness:

- Regulation restrictions from Parent University
- Reduced core placements due to mass recruitment by IT companies
- As a self-financing college, faculty members face difficulty while seeking funds from various agencies
- Rising costs of overheads and resources
- Reducing reading habits of students

Opportunities:

- More Industrial training programmes for students and faculty
- IEDC cell for Innovative projects
- Industrial projects and Internships for students
- Offering courses through NPTEL

Challenges:

- More Engineering students graduating every year
- Balancing academic, administrative and research requirement by faculty members
- Developing in-house benchmark based on previous performance.

Future Plans:

- Establishing a CoE in the area of Automotive Research & Development.
- Sandwich programmes in collaboration with reputed universities in India and abroad in the area of Automotive Design, New Product Development (NPD) etc to meet a challenging career.
- Programmes to diverge and enhance the creativity & modeling skills of students and bringing real time model of new products using Rapid Prototyping Machine.
- Increase the number of Patent registrations through the outcomes of Design Contest and Project Competitions cum exhibitions.
- Professional Membership from National and International Technical Bodies and establishing the Students Chapter.

Evaluative Report of **Department of Information Technology**

- 1. Name of the department** : INFORMATION TECHNOLOGY

- 2. Year of Establishment** : 1999

- 3. Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D.,etc.)**
 - U.G. : B.Tech. (Information Technology)
 - Ph.D. : Information and Communication Engineering,

- 4. Names of Interdisciplinary courses and the departments/units involved :**
 - Analog and Digital Communication – ECE
 - Transforms and Partial Differential Equations - S&H
 - Probability and Queuing Theory – S&H
 - Digital Signal Processing - ECE

- 5. Annual / semester / choice based credit system (programmewise) :**
 - U.G. : Semester
 - Ph.D. : Semester

- 6. Participation of the department in the courses offered by other departments:**
 - U.G. : B.E. (EEE) – Object Oriented Programming – II year
 - B.E. (EIE) - Operating System – IV year
 - Fundamentals of Computing and Programming – I Year
 - Programming and Data Structures I – I Year
 - Digital Principles and System Design – I Year

- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.**
 - Business English Certification (BEC) at the Vantage level by Cambridge English Language Assessment (CELA), University of Cambridge
 - Wipro Project Readiness Program (WIPRO PRP)
 - IBM DB2

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of teaching posts

Designation	Sanctioned	Filled
Professors	1	1
Associate Professors	3	4
Assistant Professors	12	13

10. Faculty profile with name, qualification, designation, specialization

Name	Qualification	Designation	Specialization
Dr. K. Vijaya	M.E., Ph. D.	Professor and Head	CSE
Mr. K.Poniyunselvan	M.E.	Associate Professor	CSE
Mr. K.ChidambaraThanu	M.E.	Associate Professor	CSE
Ms. A. Arthi	M.E.	Associate Professor	CSE
Ms B. PrathushaLaxmi	M.E.	Associate Professor	CSE
Mr. A. Arthanareeswaran	M.E.	Assistant Professor	Systems Engineering and Operations Research
Ms. S. D. Lalitha	M.Tech.	Assistant Professor	CSE
Ms. L Raji	M.E.	Assistant Professor	CSE
Ms. R. Rajitha Jasmine	M.E.	Assistant Professor	CSE
Ms. S. Jhansi Ida	M.E.	Assistant Professor	Systems Engineering and Operations Research
Ms. S. A. Angayarkanni	M.E.	Assistant Professor	Wireless Technologies
Ms. L. AncyGeoferla	M.Tech.	Assistant Professor	CSE
Ms. D. Rajeswari	M.E.	Assistant Professor	CSE
Mr. J. Uma Maheshwaran	M.E.	Assistant Professor	CSE
Ms. D. Steffi Wisely	M.E.	Assistant Professor	CSE
Mr. L. Vinoth Kumar	M.E.	Assistant Professor	CSE
Ms. M. L. Aishwarya	M.E.	Assistant Professor	CSE
Ms. R. Janani	M.E.	Assistant Professor	CSE

11. List of senior visiting faculty :

- Ms. M. Rathna Devi M.Tech., Senior Technical Trainer/ MSys Tech India Private Limited, Chennai
- Mr. S. Karthikeyan M.Tech., Project Associate/SETS, Chennai

12. Percentage of lectures delivered and practical classes handled (programmewise) by temporary faculty :

Nil

13. Student-Teacher Ratio (programmewise)

U.G. :B.Tech. (IT) - 1:13.33

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Total - 03

Technical - 02

- Mr. S. Padmanaban
- Mr. T. L. Saravana Kumar

Administrative - 01

- Ms. Sumithra

15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Ph. D. – 1 M.E./M.Tech - 17

16. Number of faculty with ongoing projects from a)National b)International funding agencies and grants received :

National : 1

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received

1. AICTE – Rs. 5.47 lakhs

18. Research Centre/facility recognized by the University

- Research Centre recognized by Anna University to pursue Ph.D. Program.

19. Publications:

Name	No.of papers published in peer reviewed journals	Number of publications listed in International Database (For Eg:Web of Science, Scopus	Citation Index	SJR	Impact factor	H index
Dr. K. Vijaya	5	2	22	0.15	-	2
Mr. K.Poniyunselvan	1	-	-	-	5.3	-
Mr. K.ChidambaraThanu	2	1	-	-	1.3	-
Ms. A. Arthi	3	2	-	-	1.01	-
Ms B. PrathushaLaxmi	3	1	-	-	-	-
Ms. S. D. Lalitha	3	1	-	-	3.8 (J1) 6.209(J2) 3.166(J3)	0
Ms. R. Rajitha Jasmine	1	-	2	-	-	-
Ms. L.Raji	2	-	-	-	-	-
Ms. S. Jhansi Ida	1	-	-	-	-	-
Ms. S. A. Angayarkanni	1	1	-	-	3.8	0
Ms. D. Rajeswari	3	-	-	-	-	-
Total	25	8	24	0.15	24.585	2

20. Areas of consultancy and income generated - 0.9 Lacs

- Web Page Development - Future Software Training System
- Office Automation - YEEGLEE
- Payroll Processing - Vikash Fashion Clothing Pvt. Ltd.
- Inventory Management - Aachi Masala Foods Pvt. Ltd.

21. Faculty as members in

National Committee

Committee	NCICE -2013	NCICE-2014	NCICE-2015	NCICE-2016
Organising Committee	19	21	19	19
Editorial Committee	5	6	5	3
Technical Committee		7	4	3

*NCICE – National Conference on Information and Communication Engineering

International Committee:

- Editorial Board member - 1
- Programme Committee - 1
- Session Chair -1

22. Student projects

a)Percentage of students who have done in-house projects including interdepartmental/programme : 27%

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : 73%

23. Awards/Recognitions received by faculty and students

Faculty

- Dr. K. Vijaya, Professor and Head has received **Global Teacher Role Model Award** in 2015, and **Bharath Jothi Award** in 2016.
- Mr. K. PonniyunSelvan, Associate Professor has been recognized as **WIPRO Certified Faculty** by WIPRO Technologies, Bangalore
- Mr. K. Chidambara Thanu, Associate Professor has been recognized as **WIPRO Certified Faculty** with a Score of 92.36% by WIPRO Technologies, Bangalore.
- Dr. Sandra Johnson, Professor has been awarded **Bronze Partner Faculty** under inspire – The Campus Connect Faculty Partnership Model by Infosys.
- Mr. K. Ponniyun Selvan, Associate Professor has been awarded **Bronze Partner Faculty** under inspire – The Campus Connect Faculty Partnership Model by Infosys.
- Ms. D. Steffi Wiseley, Assistant Professor has been awarded **Bronze Partner Faculty** under inspire – The Campus Connect Faculty Partnership Model by Infosys.
- Ms. B. Prathusha Laxmi, Associate Professor has been recognized as IEI Convenor, IT Students Chapter.

Student

- Ms. Nithisha received the **TCS Best Student Award**.
- Mr. Joel Felix has been recognized as one of the few who have secured 100% in online certification course “Introduction to Programming in C” conducted by NPTEL, at the national level.
- Roselin Preethi, won Second Prize in the eWIT Mobile App competition, APP BACKERS at Student Convention held by Anna University and iNautix.

- Ms. A. Sangeetha has been awarded the **Best Outgoing Student** for the academic year 2014-15.
- Ms. S. Nandhini and Ms. G. Chandhini have been awarded the **Best Outgoing Hostel Student among Girls** for the academic year 2014-15 and 2015-16 respectively.
- Department girls were awarded the **Overall Championship Award** in the Intra-Murals conducted during the academic year 2014-15.

24. List of eminent academicians and scientists/visitors to the department

Academicians:

- Dr. P. Narayanaswamy, Director, Anna University, Chennai.
- Mr. M R Arulalan, Asst. Professor, NIT, Surathkal.
- Dr. San Murugesan, Adjunct Professor, University of Western Sydney, Australia.
- Dr. Ines Arana, Senior Lecturer, MSC Programme Leader, Robert Gordon University, Aberdeen, UK

Industrialists:

- Mr. M. Krishnakumar, Principal, Regional Telecom Training Center, Chennai.
- Mr. Rajeshkar, Executive Engineer, BSNL, Chennai.
- Ms. Vasanthi Raghavan, Program Manager, L&T Infotech.
- Mr. P. Manikandan, Programmer Analyst, Testing Services, CTS.
- Mr. S. Sathish Kumar, Senior Software Developer, ELCOM, Coimbatore.
- Mrs. Amutha Venkat, Senior Consultant, Tata Consultancy Services, Bangalore.
- Mr. Madheswaran, Senior Engineer, Tata Communications, Chennai.
- Mr. K. Mahendran, CEO & Founder, Dreams Technologies, Chennai.
- Mr. P. Nageswar Rao, TAFE, Chennai.
- Mr. S.R. Sabapathi, President, QMAX Test Equipments.
- Mr. Seshu Karthik , Founder & COE, Dimensions Co., Chennai

25. Seminars/Conferences/Workshops organized & the source of funding

National

- 10 events were conducted and all of them were sponsored by college and Annual Conference co-sponsored by ISTE

International

Nil

26. Student profile programme/coursewise:

Name of the Course / programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
B. Tech – Information Technology (2012-13)	128	118	64	64	93.7%
B. Tech – Information Technology (2013-14)	117	107	50	55	NA
B. Tech – Information Technology (2014-15)	62	60	15	44	NA
B. Tech – Information Technology (2015-16)	61	60	22	38	NA

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Tech – Information Technology (2012-13)	95.31%	4.69%	NA
B. Tech – Information Technology (2013-14)	79.05%	20.95%	NA
B. Tech – Information Technology (2014-15)	83.06%	16.94%	NA
B. Tech – Information Technology (2015-16)	83.33%	16.67%	NA

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Examination	No.of Students
GATE	1

29. Student progression

Student progression	Against % enrolled
UG to PG	7.89
PG to M.Phil.	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
Employed	
<ul style="list-style-type: none"> • Campus selection • Other than campus recruitment 	83.11

Entrepreneurship/Self-employment	2
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* Yet to be graduated.

7

30. Details of Infrastructural facilities

- Library – Department library has 1246 Volumes, apart from the central Library
- Internet facilities for Staff & Students – 290 MBPS leased line available
- Class rooms with ICT facility - 6
- Laboratories – 120 systems with Core i7 as configuration are available for conducting the curriculum laboratories. 30 Apple systems are available for conducting mobile application development laboratory.
- Front End Technologies Lab in Association with Virtusa Polaris

31. Number of students receiving financial assistance from college, university, Government or other agencies

Name of the Course	No. of Students Receiving Scholarship from Government	No. of Students Receiving Scholarship from College	No. of Students Receiving Scholarship from University
B. Tech – Information Technology (2012-13)	43	7	01
B. Tech – Information Technology (2013-14)	31	6	NIL
B. Tech – Information Technology (2014-15)	19	7	NIL
B. Tech – Information Technology (2015-16)	22	5	NIL

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts

Special Lectures

- Telecommunication Industrial Challenges by Mr. M. Krishnakumar, Principal, Regional Telecom Training Center, Chennai.
- Robotics in Industry by Mr. S.R. Sabapathi, President, QMAX Test Equipments.
- Digital Signal Processing by Mr. Madhanmohan, Jasmine Infotech, Chennai.
- Service Oriented Architecture by Dr. U. Chandrasekar, Director, VSD Infotech, Chennai.
- Data Structures and Algorithms by Dr. P. Narayanaswamy, Director, Anna University,

Chennai.

- Computer Networks by Mr. Rajeshkar, Executive Engineer, BSNL, Chennai.
- Android OS by Mr. Seshu Karthik, Dimensions Co., Media Technology Studio, Chennai.
- Network Security by Mr. Magesh Philip, Senior Analyst – Software Testing, Verizon.
- Software Engineering by Mr. Magesh Philip, Senior Analyst – Software Testing, Verizon.
- Cloud Computing by Mr. S. Vijay, SAP Solution Architect, ERP Logic India Private Ltd, Bangalore.
- Data Analytics by Mr. Ashokkumar Anandam, Application Development Manager, EDH Data Services Limited, Chennai.
- Artificial Intelligence by Dr. Ines Arana, Senior Lecturer, MSC Programme Leader, Robert Gordon University, Aberdeen, UK
- Recent Trends in IT by Ms. Vasanthi Raghavan, Program Manager, L&T Infotech
- Object Oriented Programming by Mr. P Manikandan, Programmer Analyst, Testing Services, CTS.
- Java Programming by Mr. P Manikandan, Programmer Analyst, Testing Services, CTS.
- Mobile Communication by Mr. K Rajasekar, Asst. Manager, BSNL, Chennai.
- Web Technology by Mr. K. Mahendran, CEO & Founder, Dreams Technologies, Chennai.
- Computer Architecture by Mr. Ashwin Nagendran Tech Business Architect, Dreams Technologies Pvt Ltd, Chennai.
- Database Management Systems by Mr. Anandha Krishnan, CTS, Chennai.
- Data Mining by Mr. S G Srinivasan, Asst. Professor/MCA, Chettinad College of Engineering & Technology, Karur.
- Microprocessor by Mr. S. A. Saravana Pandian, Founder & Managing Director, Embien Technologies India Pvt. Ltd., Maduari.
- IT in Infrastructure Development by Mr. P. Nageswar Rao, TAFE, Chennai.

Workshops Organised

S.No.	Name of the Workshop	Date	Participants Strength
1.	Socket Programming and Network Simulation using NS2	6 days (17.12.12 to 22.12.12)	52
2.	XML and web Services	6 days (10.12.12 to 15.12.12)	45

3.	Android Basics and Mobile Application	7 days (23.12.13 to 31.12.13)	45
4.	Engineering Software as a Service in Cloud	6 days (23.06.14 to 28.06.14)	40
5.	Robotics	7days (4.2.15 to 11.2.15)	35
6.	Android Application Development	6 days (2.3.15 to 7.3.15)	41
7.	Fundamentals of JAVA Programing	3 days (23.07.2015 to 25.07.2015)	105
8.	Oracle Database 11g: Introduction to SQL 2.0	1 week (23.06.2015 to 29.06.2015)	44

- Various Centre of Excellence Programmes (Big Data & Digital) in collaboration with industries are conducted.

33. Teaching methods adopted to improve student learning

- Industrial Visits
- Internships
- Guest Lectures
- Workshops by Industry/Academic Experts
- CYBERNAUTIX – National Level Technical Symposium
- WIPRO Mission 10x – Active Learning
- Infosys Campus Connect
- Centre Of Excellence Program (Big Data & Digital)
- Seminar Hour and Technical Hour in regular time table
- BEC Certification
- Corporate Contest for eg. CodeVita, TCS Testimony, Wipro Earthian.
- Enhanced Programming Skills Program
- Innovative In-house Projects.
- Entrepreneurship cell

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Participation in Youth Red Cross (YRC) Activities
- Participation in National Service Scheme (NSS) Activities and camps
- Participation in Blood Donation Camps.

35. SWOC analysis of the department and Future plans

Strengths

- One of the very few departments of Engineering institutes in the state to have been accredited for a period of 5 years.
- Mobile Application development laboratory is setup with Apple System.
- All the faculty members are committed towards moulding and enhancing the ability of students to become a better Technocrat.
- Academic results of the department is maintained consistently above 75% and nearing 90.
- Invariably 90% of the students who have registered for placement get their offers.
- Participation of students in professional activities is in increasing trend.
- Feedback from the industry is good and hence we have been able to maintain good percentage of placement even during the recession period.
- Students take up projects that help to automate the process carried out in campus.

Weaknesses

- In spite of good academic records, somewhat limited diversity/depth of research activities.
- Funds being received from external agencies towards consultancy and research work need to be enhanced.
- Number of publications by faculty in high quality journals is low.

Opportunities

- Excellent funding opportunities from Management and also through DST, AICTE and industry for interdisciplinary research.
- Excellent time to consider for new programs in Security.

Challenges

- Restrictions by other countries to admit Indian students for post graduate studies
- Job opportunities likely to be affected due to various challenges and changes in product companies of IT industry at global level

Evaluative Report of Department of Science and Humanities

1. **Name of the department** : Department of Science and Humanities
2. **Year of Establishment** :1995
3. **Names of Programmes/Courses offered:**
 - B.E / B.Tech (Seven branches) – I Year Course
 - Ph.D., (Physics & Chemistry)
4. **Names of Interdisciplinary courses and the departments/units involved:** Nil
5. **Annual/ semester/choice based credit system (programme wise):**
 B.E / B.Tech (Seven branches) – I Year Course : Semester Pattern (Credit System)
 Ph.D., (Physics & Chemistry) - As per Anna University Norms
6. **Participation of the department in the courses offered by other departments**

S.No	Name of Interdisciplinary Courses	Departments Involved
1	Digital Principles & System Design	Computer Science Engineering/Information Technology
2	Programming & Data Structures-I	Computer Science Engineering/Information Technology

7. **Courses in collaboration with other universities, industries, foreign institutions, etc:**
 NA
8. **Details of courses/programmes discontinued (if any) with reasons:** NIL
9. **Number of Teaching posts**

	Sanctioned	Filled
Professors	04	05
Associate Professors	10	09
Asst. Professors	38	39

**10. Faculty profile with name, qualification, designation, specialization,
(D.Sc./D.Litt./Ph.D. / M. Phil. etc.)**

S.No	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.	Dr. S. Pavai Madheswari.	M.Sc., M.Phil., Ph.D.	Professor & Head	Mathematics	24 Yrs	2
2.	Dr.N.Golden Stepha	M.Sc., M.Phil., Ph.D.	Associate Professor	Mathematics	18.11 Yrs	NA
3.	Mr.S.Vijayakumar	M.Sc., M.Phil., P.G.D.C.A,	Associate Professor	Mathematics	19.01 Yrs	NA
4.	Ms.V.Nirmala	M.Sc., M.Phil.,	Associate Professor	Mathematics	19.11 Yrs	NA
5.	Ms.E.Uma Maheswari	M.Sc., M.Phil.,	Asst. Professor	Mathematics	15 Yrs	NA
6.	Dr.T.R.K.Kumar	M.Sc., M.Phil., Ph.D.	Asst. Professor	Mathematics	13.11 Yrs	NA
7.	Dr.G.Thirupathi	M.Sc., M.Phil., Ph.D.	Asst. Professor	Mathematics	13.06 Yrs	NA
8.	Ms.P.Sukania Nandakumar	M.Sc., M.Phil.,	Asst. Professor	Mathematics	12.08 yrs	NA
9.	Mr.R.Rajaraman	M.Sc., M.Phil.,	Asst. Professor	Mathematics	10.01 yrs	NA
10.	Ms.P.Suganthi	M.Sc., M.Phil., (Ph.D)	Asst. Professor	Mathematics	11.10 yrs	NA
11.	Ms.R.Valarmathi	M.Sc., M.Phil,	Asst. Professor	Mathematics	10.09 yrs	NA
12.	Ms.B.Sharmila	M.Sc., M.Phil.	Asst. Professor	Mathematics	7.02 yrs	NA
13.	Mr.S.Karthikeyan	M.Sc., M.Phil.	Asst. Professor	Mathematics	7.10 yrs	NA
14.	Ms.S.Ramya	M.Sc., M.Phil., B.Ed.	Asst. Professor	Mathematics	14.02 yrs	NA
15.	Mr.M.Muthukumar	M.Sc., M.Phil.	Asst. Professor	Mathematics	8 yrs	NA
16.	Ms.C.Muthulakshmi	M.Sc., M.Phil.	Asst. Professor	Mathematics	5.06 yrs	NA
17.	Ms. N.Meenatchi	M.Sc., M.Phil.	Asst. Professor	Mathematics	5.09 yrs	NA

18.	Mr.Ramakrishna Srinivasan	M.Sc., M.Phil.	Asst. Professor	Mathematics		NA
19.	Ms.M. Rubavathy	M.Sc., M.Phil.	Asst. Professor	Mathematics		NA
20.	Ms.V.Sanathi	M.Sc., M.Phil.	Asst. Professor	Mathematics		NA
21.	Dr.S.Arjunan	M.Sc., M.Phil., B.Ed., Ph.D.	Professor	Physics	26.10 yrs	2
22.	Dr.G.Nixon Samuel Vijayakumar	M.Sc., M.Phil., Ph.D., M.C.A., P.E.I., PGDCA	Professor	Physics	20.9 yrs	NA
23.	Ms.Sanathi M.George	M.Sc., M.Tech.,(Ph.D).	Associate Professor	Physics	19.10 yrs	NA
24.	Dr..D.Sudha	M.Sc., M.Phil., Ph.D,M.A.,	Associate Professor	Physics	16.06 yrs	NA
25.	Ms.R.Subhashini	M.Sc M.Phil.	Asst. Professor	Physics	11 yrs	NA
26.	Ms.P.S.Latha Mageshwari	M.Sc., M.Phil., (Ph.D).	Asst. Professor	Physics	15 yrs	NA
27.	Mr.A.Jagadesan	M.Sc., M.Phil.,	Asst. Professor	Physics	6.10 yrs	NA
28.	Ms.L.Padma	M.Sc., M.Phil.,	Asst. Professor	Physics		NA
29.	Ms.S.Nalini	M.Sc., M.Phil.,	Asst. Professor	Physics		NA
30.	Mr.R.Vasanth Kumar	M.Sc., M.Phil.	Asst. Professor	Physics		NA
31.	Dr.V.Srinivasan	M.Sc., Ph.D.	Professor	Chemistry	20.03 yrs	1
32.	Dr.M.Meena	M.Sc., M.Phil., Ph.D	Professor	Chemistry	19.11 yrs	NA
33.	Dr.P.Bala ramesh	M.Sc., M.Phil., Ph.D	Asst. Professor	Chemistry	16.02 yrs	NA
34.	Ms.A.Vijayalakshmi	M.Sc., M.Phil., (Ph.D)	Asst. Professor	Chemistry	16.11 yrs	NA
35.	Ms.P.Malini Anand Raj	M.Sc., M.Phil.	Asst. Professor	Chemistry	9.03 yrs	NA
36.	Ms.A.Parvathi Priya	M.Sc., M.Phil.	Asst. Professor	Chemistry	13 yrs	NA
37.	Dr. R. Thinesh Kumar	M.Sc., Ph.D.	Asst. Professor	Chemistry	5.05 yrs	NA

38.	Ms.G.Sugitha	M.Sc., M.Phil.	Asst. Professor	Chemistry		NA
39.	Dr.S.Anita Evelyn	M.A., M.Phil., Ph.D.	Associate Professor	English	17.04 yrs	NA
40.	Ms.M.G.Meedphin Arasi	M.A., M.Phil.,	Asst. Professor	English	11.04 yrs	NA
41.	Dr.A.Gnanavathe	M.A., M.Phil., Ph.D.	Asst. Professor	English	11.02 yrs	NA
42.	Ms.V.S.Binu	B.Sc., M.A., M.Phil.	Asst. Professor	English	10.10 yrs	NA
43.	Ms.M.Ida	M.A., M.Phil.,	Asst. Professor	English	7 yrs	NA
44.	Ms.M.Rubitha	M.A., M.Phil.	Asst. Professor	English	3.07 yrs	NA
45.	Dr.S.Radhika	M.C.A., M.Phil., Ph.D.	Associate Professor	M.C.A	19.01 yrs	NA
46.	Ms. S. Meenakshi	M.C.A.,(Ph.D).	Associate Professor	M.C.A	13.11 yrs	NA
47.	Mr.V.Vijayabhaskar	M.C.A.,M.Tech. , M.Phil.	Asst. Professor	M.C.A	18	NA
48.	Ms.X.Ignatious Viola	M.C.A., M.Phil., (Ph.D).	Asst. Professor	M.C.A	13.02 yrs	NA
49.	Ms. V. Sharmila Bhargavi	M.C.A.,M.Tech.	Asst. Professor	IT	11Yrs	NA
50.	Ms.M.L.Aishwarya	M.Tech.,	Asst. Professor			NA
51.	Ms.R.Janani	M.E.,	Asst. Professor			NA
52.	Ms.S.Prathima	M.Tech.,	Asst.Professor			NA
53.	Dr.S.D.Umamagesw ari	M.Sc., M.Tech., M.B.A.,Ph.D.	Assoc.Professor	MBA	24 yrs	NA

11. List of senior visiting faculty:

1.	Dr.C.Chudalaimuthu Pillai	M.Sc., Ph.D.	Emeritus Professor	Mathematics	55 yrs	NA
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12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NIL

13. Student -Teacher Ratio (programme wise) : 14.7:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

S.No	Name	Qualification	Designation	No. of Years of Experience
1.	Ms.P.Mythily	B.Sc.,	Lab. Assistant	22 Years
2.	Mr.J.Babu	B.Sc.,	Lab. Assistant	22 Years
3.	Ms.V.Janani Bai	M.Sc.,	DEO	6 Months
4.	Ms.J.Bhagyalakshmi	BCA.,	DEO	4 Months

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.

S.No	Qualification	Number of Teaching faculty
1	Ph.D	15
2	M.Phil	32
3	MCA/M.Tech	6
4	SLET/NET	6

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: Nil

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: Nil

18. Research Centre /facility recognized by the University:

S.No	Research Department	Recognized University	Number of Research Scholars
1	Physics	Anna University	2
2	Chemistry	Anna University	1

19. Publications:

Year	No. of Papers(Journal)	No. of Citation	Impact Factor
2012-13	13	5	0.11,3.45,0.415

2013-14	19	6	5.4,0.728,0.888
2014-15	30	8	1.599,10.0,2.38,3.72
2015-16	36		0.468,6.955,12.0,0.012
Year	Books Reviewed / Edited / Published		
2012-13	2 Published		
2013-14	2 Published		
2014-15	1 Published		
2015-16	4 Edited		

20. Areas of consultancy and income generated:

Area of Consultancy	Amount
Engineering Material	NIL

21. Faculty as members in

- National committees b) International Committees c) Editorial Boards - NIL

22. Student projects

- Percentage of students who have done in-house projects including inter departmental / programme - NA.
- Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - NA.

23. Awards / Recognitions received by faculty and students

(a) Awards / Recognitions received by students

S.No	Names	Event	Prize	College
1	Balajee k, Balaji p, Bala vignesh. K, Giritharan v	Science Exhibition	First	R.M.K. Engineering college
2	Arockia Christopher U S, Balaji. K, Charan Kumar S.K, Diwakar V, Gnana Anandharam M	Science Exhibition	Second	R.M.K. Engineering college
3	Rahul Rajeev S.E	Science Exhibition	Third	R.M.K. Engineering college
4	Hem Kumar Rao R	Essay Competition	First	Murugapa Polytechnic college

(b) Awards / Recognitions received by faculty

S.No	Names	Department	Awards/ Recognition
1.	Dr. S. Pavai Madheswari	Mathematics	Best faculty award by CTS
2.	Ms.M.GMeedphin Arasi	English	Infosys campus connect inspire faculty partnership level and excellence silver award(Soft Skill)
3.	Ms.Binu V.S	English	Infosys campus connect inspire faculty partnership level and excellence silver award(Soft Skill)
4.	Ms.S.Meenakshi	General Engineering	Infosys campus connect inspire faculty partnership level and excellence silver award(Technical Skill)
5.	Ms.S.Meenakshi	General Engineering	Best SPoc for remarkable contribution to Infosys campus connect program.
6.	Dr. S.Radhika	General Engineering	Infosys campus connect inspire faculty partnership level and excellence Bronze award(TechnicalSkill)
7.	Dr. S.Radhika	General Engineering	IBM Distinguished Mentor Award.

**25. List of eminent academicians and scientists / visitors to the department - NIL.
Seminars/ Conferences/Workshops organized & the source of funding**

- **National** - Nil
- **International** –Nil

26. Student profile programme/course wise:

Name of the Course/programme	Academic Year	Applications Received/Selected	Enrolled		Pass percentage
			*M	*F	
B.E /B.TECH	2015 - 16	790/778	471	307	88.20
B.E /B.TECH	2014 - 15	786/777	466	311	92.03
B.E /B.TECH	2013 - 14	1077/1044	715	329	90.15
B.E /B.TECH	2012 - 13	1073/1066	726	340	87.8

*M = Male *F = Female

27. Diversity of Students

Year	Name of the Course	% of students from the same state	% of students from otherStates	% of students from abroad
2015 - 16	B.E /B.TECH	77.69 %	23.22 %	-
2014 - 15	B.E/B.TECH	79.61 %	21.96%	-
2013 - 14	B.E/B.TECH	73.37 %	26.63 %	-
2012 - 13	B.E/B.TECH	84.39 %	19.61 %	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? - NA

29. Student progression

Student progression	Against % enrolled
UG to PG	NA
PG to M.Phil.	NA
PG to Ph.D.	NA
Ph.D. to Post-Doctoral	NA
Employed	
Campus selection	NA
Other than campus recruitment	
Entrepreneurship/Self-employment	NA

30. Details of Infrastructural facilities

a) Library Total area: 1450 sq.m

Number of titles : 1498		Number of volumes: 5141				
Year	Number of new titles added	Number of new editions added	Number of new volumes added	Journal subscription		
				N	I	T
2012 – 2013	98	148	364	6	48	54
2013 – 2014	101	154	375	13	54	67
2014 – 2015	131	139	384	13	57	70
2015-2016	124	168	341	11	256	267

b) Internet facilities for Staff & Students

Name of the Internet provider	Band width	Wi-Fi availability	Internet in Laboratory	Security	Internet in Department
Tata Teleservices	70 mbps	Yes(Hostel)	Yes	Secured	Available
Reliance communications	220mbps				
College website – www.rmkec.ac.in (Each faculty and student is provided with email)					

c) Class rooms with ICT facility

- 10 Class Rooms & 1 Seminar Hall with ICT facilities such as,
 - Enabled Computer system
 - LCD projector
 - White board
 - OHP
- Library: 499 books
- Internet facilities for Staff & Students: computers with Internet facilities.
- Class rooms with ICT facility: All 26 class rooms are spacious and well equipped with necessary infrastructure making it conducive for the teaching – learning process.
- Small Class size (30 / 40 students per section) for giving individual attention to improve learning process.
- **Laboratories:**

Adequate number of laboratories is available in the department as per AICTE norms. Equipment is maintained in working condition so that satisfactory and reliable results are obtained. Equipments are available to conduct experiments beyond curriculum.

S.No.	Laboratory Description	Major Equipment
1.	Physics Lab	<ul style="list-style-type: none"> • Torsional Pendulum • Traveling microscope • Lees disc Apparatus • Ultrasonic Interfero meter • Grating 1500 lines/meter • Galvanometer

		<ul style="list-style-type: none"> • Laser Source • Helium Laser source • Jig, Optical fiber • Spectro meter
2.	Chemistry Lab	<ul style="list-style-type: none"> • pH Meter • Ostwald Viscometer • Iodine Flask. • Conductivity Meter • Spectrophotometer • Potentiometer 5 • Flame Photometer • Weighing Balance
3.	Computer Lab	<ul style="list-style-type: none"> • 80 Computers with configuration of P4 Processor, 2G RAM, 80GB Hard Disc
4.	Drawing Hall (02 Nos)	

31. Number of students receiving financial assistance from college, university,

Government or other agencies:

Agency	Number of students receiving financial assistance			
Year	2012-13	2013-14	2014-15	2015-16
College	13	13	17	13
University	-	-	-	-
Government	BC – 63 MBC – 36 SC - 48 ST - 0 Tuition fee exemption - 0 First graduate -214	BC – 46 MBC – 27 SC - 37 ST - 01 Tuition fee exemption - 51 First graduate - 137	BC – 69 MBC – 33 SC - 34 ST - 01 Tuition fee exemption - 35 First graduate – 104	BC – 59 MBC – 35 SC - 39 ST - 01 Tuition fee exemption - 40 First graduate – 89
Other Agencies	-			

32. Details on student enrichment programmes (special lectures /workshops /seminar) with external experts

Name of Programme	2012-13	2013-2014	2014-15	2015-16
Perils And Revival of Hopes	-	-	750	-
Stepping Stone (Engineering Orientation)	-	1039	765	771
Two days Life Skills Workshop	1066	1039	765	771
Personality Development	1066	1039	765	771

33. Participation in Institutional Social Responsibility (ISR) and Extension Activities

Academic Year	NSS
2013 – 14	2
2014 – 15	2
2015 - 16	3

34. SWOC analysis of the department and Future plans:

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND CHALLENGES (SWOC)

ANALYSIS

STRENGTHS

- Staff retention rate is very high.
- The department holds within its canopy highly qualified, dedicated & well experienced faculty members who have made persistent and strenuous efforts to promote ‘implementation of practical aspects’ of applied sciences & humanities, in order to build a solid foundation as part of the engineering education.
- The department could boast of well spaced Physics, Chemistry & language labs equipped with the state-of-art infrastructure and adequate instruments that add value to this department.
- The department helps activate skills in self learning activities: NPTEL etc.,
- A wide range of teaching methodologies like PPT’s, Video clips and so on, other than the usual Chalk & Talk method is implemented as per the need.
- Students ‘interest’ in department programmes is very strong and English Literary Club, Science Club, Coding Club and Sports Club remains active throughout the year.

WEAKNESSES

- As ours is a minority institution, we get a heterogeneous mix of students wherein students from different boards, languages and areas are admitted.

OPPORTUNITIES

- The strategic position of the college can be utilized to admit creamy layer of students
- Fully qualified gamut of faculty uses ICT facilities to impart technical knowledge
- As the institution is located in the industrial hub with 7 government industrial estates provides opportunities to develop a strong industry institute relationship for
- Carrying out consultancy work and research work by our faculty members
- Organizing industrial visits for our students to understand the real time operations of the industry
- Organizing entrepreneurship development and skill development programs

CHALLENGES

- Syllabus framed by the university is oriented towards students scoring marks but not increasing their critical evaluation ability.
- Limited teaching hours in semester mode hampers the growth of thinking process.
- Excellence in teaching ought to be sustained.
- To build and sustain the student interest in reading and upgrading themselves through research journals, newspapers and science related magazines.
- To make students think beyond the horizons and work towards their goals with sincerity and hard work.

FUTURE PLANS:

- Motivate the students to participate in technical events organized by industries.
- Encourage the students to solve coding challenges posted in websites like hackerrank, hackerearth.
- To introduce an active mentoring system for enhancing peer learning
- To channelize the activities of Quality Circle for improving the quality of teaching learning process and hence the overall performance
- To start Ramanujan's Math Cub
- To enforce the faculty to get certified in atleast one online course per semester
- To organize a conference / workshop per year
- To encourage the faculty to publish / present atleast one research paper per year
- To improve the research and development activities.

Annexures



E-mail : principal@rmkec.ac.in
Website : www.rmkec.ac.in

☎ : (044) 3330 3330
☎ : (044) 27925102, 27925338, 27925339
☎ : (044) 3330 3334



R.M.K. ENGINEERING COLLEGE

(Sponsored by LAKSHMIKANTHAMMAL EDUCATIONAL TRUST)

(Approved by the All India Council for Technical Education)
(Affiliated to Anna University)

R.S.M. NAGAR, KAVARAIPETTAI - 601 206, GUMMIDIPOONDI TK., THIRUVALLUR DIST., TAMIL NADU, INDIA.

Dr. K.A. MOHAMED JUNAID, M.E., Ph.D.,
PRINCIPAL

DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

Place:
Date:



Junaid
31/3/17
Signature of the Head of the institution
with seal:

PRINCIPAL
R.M.K. ENGINEERING COLLEGE
R.S.M. NAGAR, KAVARAIPETTAI - 601 206,
GUMMIDIPOONDI TALUK, THIRUVALLUR DIST.

Administrative Office

PLOT No. 2981, Z BLOCK, 1st STREET, 13th MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040. ☎ : 26211504, 26266046



E-mail : principal@rmkec.ac.in
: rmkecp@gmail.com
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R.M.K. ENGINEERING COLLEGE

(Sponsored by LAKSHMIKANTHAMMAL EDUCATIONAL TRUST)

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R.S.M. NAGAR, KAVARAIPETTAI - 601 206, GUMMIDIPOONDI TK., THIRUVALLUR DIST., TAMILNADU, INDIA.

Certificate of Compliance

This is to certify that **R.M.K. ENGINEERING COLLEGE, KAVARAIPETTAI, THIRUVALLUR Dist.** fulfils all norms.

1. Stipulated by the affiliating University - Anna University, Chennai and
2. Regulatory Council - AICTE and
3. The affiliation and recognition is valid as on date.

In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

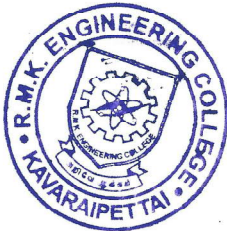
It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date:27-04-2017

Place:Kavaraipettai.

Zunaid
27/4/17
Principal/Head of the Institution
(Name and Signature with Office seal)



Dr. K.A. MOHAMED JUNAID, M.E., Ph.D.,
PRINCIPAL
R.M.K. ENGINEERING COLLEGE
R.S.M. NAGAR, KAVARAIPETTAI -601 206
GUMMIDIPOONDI TALUK, THIRUVALLUR DIST.

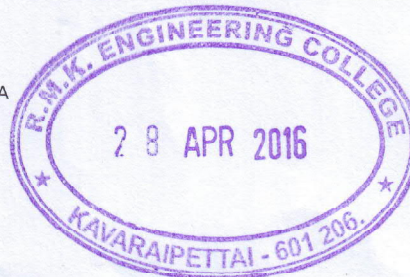
Administrative Office



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

19
28/4/16



F.No. Southern/1-2811165868/2016/EOA

Date: 28-Apr-2016

To,

The Principal Secretary
(Higher Education) Govt. of Tamil Nadu,
N. K. M. Bld. 6th Floor Secretariat,
Chennai-600009

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/09/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Southern	Application Id	1-2811165868
Name of the Institute	R.M.K. ENGINEERING COLLEGE	Permanent Id	1-2019411
Name of the Society/Trust	LAKSHMIKANTHAMMAL EDUCATIONAL TRUST	Institute Address	RSM NAGAR, KAVARAIPETTAI, GUMMIDIPOONDI TALUK., KAVARAIPETTAI, THIRUVALLUR, Tamil Nadu, 601206
Institute Type	Unaided - Private	Society/Trust Address	PLOT NO.2981, 'Z' BLOCK, FIRST STRFFT, 13TH MAIN ROAD, ANNA NAGAR, CHENNAI, CHENNAI, Tamil Nadu, 600040

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake indicated below for the academic year 2016-17

Application Id: 1-2811165868			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIO / FN / Gulf quote Approval status	Foreign Collaboration/Twinning Program Approval status
Program	Shift	Level								
ENGINEERING AND	1st Shift	POST GRA	APPLIED ELECTRONICS	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA

Application Number: 1-2811165868

Note: This is a Computer generated Report.No signature is required.

Page 1 of 4
Letter Printed On:28 April 2016

Printed By : AE852211



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TECHNOLOGY		DUALITY								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	POWER ELECTRONICS AND DRIVES	FULL TIME	Anna University, Chennai	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	CIVIL ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL AND ELECTRONICS ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS AND INSTRUMENTATION ENGINEERING	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	Anna University, Chennai	180	180	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	Anna University, Chennai	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	Anna University, Chennai	120	120	NA	NA	NA



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The above mentioned approval is subject to the condition that R.M.K. ENGINEERING COLLEGE shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

Course(s) Applied for Closure by the Institute for the AY 2016-17:

Application Id: 1-2811165868			Name of the Course	Full/Part Time	Affiliating Body	Course Closure Status
Program	Shift	Level				
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	VLSI DESIGN : (Last Approved Intake 18)	FULL TIME	Anna University, Chennai	Approved
MANAGEMENT	1st Shift	POST GRADUATE	MASTERS IN BUSINESS ADMINISTRATION : (Last Approved Intake 60)	FULL TIME	Anna University, Chennai	Approved

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made in AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case Institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

- The Regional Officer,**
All India Council for Technical Education
Shastri Bhawan 26, Haddows Road
Chennai - 600 006, Tamil Nadu
- The Director Of Technical Education,**
Tamil Nadu
- The Registrar,**
Anna University, Chennai
- The Principal / Director,**

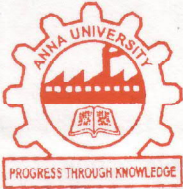


All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-India.org

R.M.K. ENGINEERING COLLEGE
RSM NAGAR,
KAVARAIPETTAI,
GUMMIDIPOONDI TALUK,,
KAVARAIPETTAI, THIRUVALLUR,
Tamil Nadu,601206

5. **The Secretary / Chairman,**
LAKSHMIKANTHAMMAL EDUCATIONAL TRUST
PLOT NO.2981,
'Z' BLOCK, FIRST STREET,
13TH MAIN ROAD,
ANNA NAGAR,
CHENNAI,CHENNAI,
Tamil Nadu,600040
6. **Guard File(AICTE)**



ANNA UNIVERSITY

CHENNAI - 600 025, INDIA

Phone : (O) 22352161, 22357004

Fax : 91-44-2235 1956

Gram : ANNATECH

E-mail : registrar@annauniv.edu

REGISTRAR



Lr No. 02 /AFFLN/CAI/AU/2016-17/1117

Date: 12-05-2016

To

The Principal,
R M K Engineering College, R.S.M. Nagar, Kavaraipettai,
Gummidipoondi Taluk, Tiruvallur District - 601
206.-601206

Sir,

Sub: AU - AFFILIATION - Provisional Affiliation for the existing course(s) / New course(s) / variation in intake - U.G. / P.G. for the academic year 2016-17 Granted - Reg.

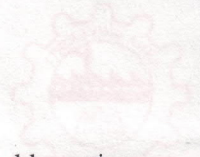
- Ref: 1. Your application for affiliation for the academic year 2016-17
2. AICTE Approval for the academic year 2016-17.

I am to inform that under the provisions of Section 7.6.1 of the Statutes for affiliation of Anna University, Chennai, **Provisional Affiliation** for the continuation of the existing course(s) / new course(s) / variation in intake in the existing course(s) is granted for the following U.G / P.G. courses with the sanctioned intake mentioned against each course for the academic year **2016-17** at **R M K Engineering College, R.S.M. Nagar, Kavaraipettai, Gummidipoondi Taluk, Tiruvallur District - 601 206.-601206.**

Sl. No.	Degree	Course(s)	Sanctioned Intake	
			2015-16	2016-17
1	B.E.	Civil Engineering	120	120
2	B.E.	Computer Science and Engineering	120	120
3	B.E.	Electrical and Electronics Engineering	120	120
4	B.E.	Electronics and Communication Engineering	180	180
5	B.E.	Electronics and Instrumentation Engineering	60	60
6	B.E.	Mechanical Engineering	120	120
7	B.Tech.	Information Technology	60	60
8	M.E.	Applied Electronics	18	18
9	M.E.	Computer Science and Engineering	18	18
10	M.E.	Power Electronics and Drives	18	18

The above said Provisional Affiliation is being granted subject to the fulfillment of the conditions mentioned below:

- Production of Originals of AICTE / COA / DGS approval and all other related documents for verification, whenever demanded by the University.
- Verification by a Committee towards the fulfillment of the conditions mentioned above and the continued fulfillment of the requirements for the above-mentioned course(s) as per the norms and standards of AICTE / University and the laboratory requirements as per the curricula and syllabi of Anna University, Chennai for the above courses. In the event of any violation/infringement of the above said conditions and / or the provisions of Anna University, Chennai Act / Statutes / Regulations, AICTE



Act, norms & standards / regulations / guidelines or any other law being in force, suitable action including suspension / withdrawal of affiliation of course(s) may be initiated against the college.

- Students should not be admitted for the above course(s) for the next academic year without obtaining the order of continuation of provisional affiliation for the next academic year from the University.

The Provisional Affiliation is granted without prejudice to the right of the University of requiring production of certificate required under Section 37-B of TAMILNADU Reforms (LC) Act 1961 subject to the decision of the Hon'ble High Court of Madras in W.A. No. 3454 / 2002 batch and W.A. No. 3482 / 2002 batch.



Yours sincerely,

REGISTRAR
REGISTRAR
ANNA UNIVERSITY
CHENNAI-600 025

Copy to:

1. The Director of Technical Education, DOTE campus, Chennai - 600 025.
2. The Regional Officer, Southern Regional Office, AICTE, 26, Haddows Road, Shastri Bhawan, Chennai 600 006.
3. Master file.



Higher Education (J1) Department,
Secretariat, Chennai-9.

Letter (D) No.112, dated 15.5.2012

From
Dr. T.S.Sridhar.I.A.S.,
Additional Chief Secretary to Government.

To
The Managing Trustee,
Lakshmikanthammal Educational Trust,
Plot No.2981, Z Block 1st Street,
13th Main Road,
Anna Nagar, Chennai – 600 040.
(through the Commissioner of Technical, Chennai-25)



Sir,

Sub: Higher Education – Technical Education – Self Financing Engineering Colleges – R.M.K. Engineering College, R.S.M.Nagar, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur District – Conferment of minority status for five years from 2012-2013 to 2016-2017 – Orders – Issued.

- Ref: 1. G.O.(Ms) No.270, Higher Education Department, dated 17.6.1998.
2. Judgement of the 11 Judges Constitution Bench of the Supreme Court of India, dated 3.10.2002 in W.P. (Civil) No.317/1993 in T.M.A.Pai Foundation and Ors. Vs State of Karnataka and Ors.
3. G.O.(Ms) No.20, Higher Education Department, dated 13.2.2003.
4. Judgement of the Seven Judge Bench of the Supreme Court of India, dated 12.8.2005 in Civil Appeal No.1541/2005 in P.A.Inamdar and Others Vs State of Maharastra and Others.
5. G.O.(Ms) No.386, Higher Education Department, dated 11.12.2006.
6. Letter (Ms) No.291, Higher Education (J1) Department, dated 11.7.2008.
7. From the Commissioner of Technical Education, letter No.3784/H1/2011, dated 16.3.2012.

I am directed to convey the approval of the Government for the continuance of minority status, already conferred in the letter sixth cited, to the R.M.K. Engineering College, R.S.M. Nagar, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur District run by Lakshmikanthammal Educational Trust, Plot No.2981, Z Block 1st Street, 13th Main Road, Anna Nagar, Chennai-600 040 for a further period of five years from 2012-2013 to 2016-2017.

Yours faithfully,

In. Sridhar I.A.S.
15.5.12

for Additional Chief Secretary to Government.

Copy to
The Commissioner of Technical Chennai-25.