# **R.M.K. ENGINEERING COLLEGE, KAVARAIPETTAI**

(Autonomous College) (Autonomous status by UGC, New Delhi and Anna University, Chennai / Approved by AICTE, New Delhi)

# **REGULATIONS 2020**

# CHOICE BASED CREDIT SYSTEM

#### Common to all M.E. Full-Time Programmes Applicable to the Students admitted to M.E. Programmes from the AY 2020-21 onwards

#### **DEGREE OF MASTER OF ENGINEERING**

The following Regulations is applicable to the students admitted to M.E. Programmes at R.M.K. Engineering College, Kavaraipettai, from the academic year **2020-2021** onwards.

#### 1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

- i. "Programme" means Post graduate Degree Programme e.g. M.E., Degree Programme.
- ii. "**Branch**" means specialization or discipline of M.E. Degree Programme like "Computer Science and Engineering", "Applied Electronics", etc.
- iii. "**Course**" means Theory or Practical subject that is normally studied in a semester, like Applied Mathematics, Operating Systems, etc.
- iv. **"Chairman, Academic Council**" means the authority of the Autonomous Institution who is responsible for all academic activities of the Institution/Departments for implementation of relevant Rules and Regulations.
- v. "Head of the Institution" means the Principal of the College.
- vi. "BoS Chairman" means Chairperson of Board of Studies of each department.
- vii. "Head of the Department" means the head of the Department concerned.
- viii. **"Controller of Examinations"** means the authority of the Autonomous Institute who is responsible for all activities of the End semester Examinations.
- ix. "**Credit**" means a numerical value allocated for each course to describe the student's workload required per week.
- x. "Grade" means the letter grade assigned to each course based on the range of marks specified.
- xi. "**Grade Point**" means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- xii. "University" means ANNA UNIVERSITY, CHENNAI.

# 2 PROGRAMMES OFFERED. MODES OF STUDY AND ADMISSION REQUIREMENTS

#### 2.1 <u>P.G. PROGRAMMES OFFERED</u>:

- **1. M.E. Applied Electronics**
- 2. M.E. Computer Science & Engineering
- 3. M.E. Power Electronics & Drives

#### 2.2 MODES OF STUDY:

#### 2.2.1 Full-Time:

Candidates admitted under 'Full-Time' should be available in the College / Institution during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the curricular, co-curricular and extra-curricular activities assigned to them.

The Full-Time candidates should not attend any other Full-Time programme(s) / course(s) or take up any Full-Time job / Part-Time job in any Institution or Company during the period of the Full-Time programme. Violation of the above rules will result in cancellation of admission to the PG programme.

#### 2.2.2 Part-Time Mode:

In this mode of study, the students are required to attend classes conducted in the evenings and complete the course in three years.

2.2.3 Conversion from one mode of study to the other is not permitted.

#### 2.3 ADMISSION REQUIREMENTS:

2.3.1 Candidates for admission to the first semester of the Post-Graduate Degree Programme shall be required to have passed an appropriate Under-Graduate Degree **Examination of the AnnaUniversity** or equivalent as specified under qualification for admission as per the Tamil Nadu Common Admission (TANCA) criteria.

**Note:** TANCA releases the updated criteria during the admissions every academic year. Admission shall be offered only to the candidates who possess the qualification prescribed against each programme.

Any other relevant qualification which is not prescribed against each programme shall be considered for equivalence by the committee constituted for the purpose. Admission to such degrees shall be offered only after obtaining equivalence to such degrees.

2.3.2 However, the Syndicate of the University may decide to restrict admission in any particular year to candidates having a subset of qualifications prescribed at the time of admission.

2.3.3 Notwithstanding the qualifying examination the candidate might have passed, he/she shall have a minimum level of proficiency in the appropriate programme / courses as prescribed by the Syndicate of the University from time to time.

2.3.4 Eligibility conditions for admission such as the class obtained, the number of attempts in qualifying examination and physical fitness will be as prescribed by the Syndicate of the University from time to time.

2.3.5 All Part-Time candidates should satisfy other conditions regarding Experience, Sponsorship etc. that may be prescribed by the Syndicate from time to time.

# 3 STRUCTURE OF THE PROGRAMMES

# 3.1 Categorization of Courses

Every Post Graduate Degree Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. Foundation Courses (FC) may include Mathematics or other basic courses
- ii. **Professional Core (PC)** courses include the core courses relevant to the chosen specialization/branch.
- iii. **Professional Elective (PE)** courses include the elective courses relevant to the chosen specialization/branch.
- iv. **Employability Enhancement Courses (EEC)** include Project Work and/or Internship, Seminar, Professional Practices, Summer Project, Case Study and Industrial/Practical Training.

Instead of two electives in the curriculum, the student may be permitted to choose a maximum of 2 courses from other PG programmes with the approval of the Head of the Department offering such courses.

#### 3.2 Courses per Semester

Curriculum of a semester shall normally have a blend of lecture courses and practical courses including Employability Enhancement Courses. Each course may have credits assigned as per clause 3.3.

#### 3.3 Credit Assignment

Each course is assigned certain number of credits based on the following:

Contact periods per week	CREDITS
1 Lecture Period	1
2 Tutorial Periods	1
2 Practical Periods (Laboratory / Seminar / Project Work etc.)	1

#### 3.4 Project Work

3.4.1 The project work for M.E. Programmes consists of Phase–I and Phase–II. The Phase–I is tobe undertaken during III semester and Phase–II, which is a continuation of Phase–I is to be undertaken during IV semester.

3.4.2 In case of candidates of M.E. Programmes not completing Phase-I of project work successfully, the candidates can undertake Phase-I again in the subsequent semester. In such cases, the candidates can enroll for Phase-II, only after successful completion of Phase-I.

3.4.3 Project work shall be carried out under the supervision of a "qualified teacher" in the Department concerned. In this context "qualified teacher" means the faculty member possessing (i) PG degree with a minimum of 3 years experience in teaching or (ii) Ph.D. degree.

3.4.4 A candidate may, however, in certain cases, be permitted to work on projects in an Industrial/Research Organization, on the recommendations of the Head of the Department concerned. In such cases, the Project work shall be jointly supervised by a supervisor of the department and an expert, as a joint supervisor from the organization and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress.

3.4.5 The Project work (Phase II in the case of M.E) shall be pursued for a minimum of 16 weeks during the final semester.

3.4.6 The deadline for submission of final Project Report is 60 calendar days from the last working day of the semester in which project/thesis/dissertation is done. However, the Phase-I of the Project work shall be submitted within a maximum period of 30 calendar days from the last working day of the semester as per the academic calendar published by the Institution.

#### 3.5 Industrial Training / Internship

The students may undergo Industrial training for a period as specified in the curriculum during summer/winter vacation. In this case the training has to be undergone continuously for the entire period.

The students may undergo Internship at Research organization/University (after due approval from the Head of the Department) for the period prescribed in the curriculum during summer / winter vacation, in lieu of Industrial training.

#### 3.6 Value Added Courses

The Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. One/Two credit courses shall be offered by a Department of an institution with the prior approval from the Head of the Institution. Students can take a maximum of two one credit courses / one two credit course during the entire duration of the Programme.

#### 3.7 Online Courses

3.7.1 Students may be permitted to credit online course subject to a maximum of 3 credits

- 8 weeks course -1 credit
- 12 weeks course -1.5 credit

3.7.2 The approved list of online courses will be provided by the concerned Department. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Controller of Examinations of the Institution.

#### 3.8 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

# 4 DURATION AND STRUCTURE OF THE PROGRAMMES:

4.1 The minimum and maximum period for completion of the P.G. Programmes are given below:

Programme	Min. No. of Semesters	Max. No. of Semesters
M.E. (Full-Time)	4	8
M.E. (Part Time)	6	12

- 4.2 The Curriculum and Syllabi of all the P.G. Programmes shall be approved by the BoS and Academic Council. The number of Credits to be earned for the successful completion of the programme shall be as specified in the Curriculum of the respective specialization of the P.G. Programme.
- 4.3 Each semester shall normally consist of 80 working days or 540 periods of each 50 minutes duration, for full-time mode of study or 250 periods for part-time mode of study. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught. For the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 10) by students, following method shall be used.

Percentage of Attendance = Total no. of periods attended in all the courses per semester X100 (No.of periods / week as prescribed in the curriculum X

(No.of periods / week as prescribed in the curriculum No. of weeks taken together for all courses of the semester)

End Semester Examinations conducted by the Controller of Examinations will be scheduled after the last working day of the semester.

4.4 The minimum prescribed credits required for the award of the degree shall be within the limits specified below:

Programme	Prescribed Credit Range	
M.E.	70 to75	

#### 5. COURSE REGISTRATION

The Institution is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 5.2)). The student can also register for courses for which the student has failed in the earlier semesters.

The registration details of the candidates may be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.

#### The courses that a student registers in a particular semester may include

- i. Courses of the current semester.
- ii. The core (Theory/Lab /EEC) courses that the student has not cleared in the previous semesters.
- iii. Elective courses which the student failed (either the same elective or a different elective instead).

#### 5.2 Flexibility to Drop courses

5.2.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.

5.2.2 From the II to Final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses cannot exceed 6 for PG (Full Time) programmes and cannot exceed 3 for PG (Part Time) programmes.

#### 6 EVALUATION OF PROJECT WORK

The evaluation of Project Work for Phase-I & Phase-II shall be done independently in the respective semesters and marks shall be allotted as per the weightages given in Clause 6.1.

6.1 There shall be three assessments (each 100 marks) during the Semester by a review committee. The Student shall make presentation on the progress made before the Committee. The Head of the Institution shall constitute the review committee for each branch of study. The total marks obtained in the three assessments shall be reduced to 40 marks and rounded to the nearest integer (as per the Table given below). There will be a viva-voce Examination during End Semester Examinations conducted by a Committee consisting of the supervisor, one internal examiner and one external examiner. The internal examiner and the external examiner shall be appointed by the Controller of Examinations. The distribution of marks for the internal assessment and End semester examinations is given below:

Internal Assessment (40Marks)		Internal Assessment (40Marks) End Semester Examination (60 Marks)			0 Marks)	
Review– I	Review– II Review- III		Thesis Evaluation		Viva –	Voce
			External Examiner	Internal Examiner	External Examiner	Supervisor
10	15	15	20	15	15	10

- 6.2 The Project Report prepared according to approved guidelines as given by Academic Council and duly signed by the supervisor(s) and the Head of the Department concerned shall be submitted to the Head of the Institution.
- 6.3 If the candidate fails to obtain 50% of the internal assessment marks in the Phase–I and Phase–II/final project, he/she will not be permitted to submit the report for that particular semester and has to re-enroll for the same in the subsequent semester.

If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-enroll for the same in a subsequent semester. This applies to both Phase–I and Phase–II project work.

If a candidate fails in the end semester examinations of Phase–I, he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. If he/she fails in the End semester examination of Phase–II of Project work of M.E., he/she shall resubmit the Project Report within 60 days from the date of declaration of the results. The resubmission of a project report and subsequent viva-voce examination will be considered as reappearance with payment of exam fee. For this purpose the same Internal and External examiners shall

evaluate the resubmitted report.

6.3.1 A copy of the approved Project Report after the successful completion of viva-voce examination shall be kept in the library of the college/institution.

6.3.2 Practical/Industrial Training, Summer Project if specified in the Curriculum shall not exceed the maximum duration of 4 weeks and should be organized by the Head of the Department for every student.

6.3.3 At the end of Practical/Industrial Training/Summer Project, the candidate shall submit a certificate from the organization where he/she has undergone training and also a brief report. The evaluation for 100 marks will be carried out internally based on this report and a Viva-Voce Examination will be conducted by a Departmental Committee constituted by the Head of the Institution. Certificates submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.

# 7 FACULTY

# 7.1 Class Advisor

There shall be a class advisor for each class. The class advisor will be one among the courseinstructors of the class. He/She will be appointed by the Head of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class advisor shall be:

- To act as the channel of communication between the HoD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

# 7.2 Counselor

The Counselor shall advise and guide their counseling students in registering of courses, the reappearance of courses, monitor their attendance and progress, and counsel them periodically. The Counselor shall discuss/inform to the parents about the progress/performance of the students concerned.

# 8 CLASS COMMITTEE

- 8.1 A Class Committee consists of teachers of the concerned class, student representatives and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching-learning process. The functions of the class committee include:
  - Solving problems experienced by students in the class room and in the laboratories.
  - Clarifying the regulations of the programme and the details of rules therein.
  - Informing the student representatives, the "academic schedule" including the dates of assessments and the syllabus coverage for each assessment period.
  - Informing the student representatives, the details of regulations regarding the weightage

used for each assessment. In the case of practical courses (laboratory/project work/ seminar etc.) the breakup of marks for each experiment/ exercise/ module of work, should be clearly discussed in the class committee meeting and informed to the students.

- Analyzing the performance of the students of the class after each test and finding the ways and means of improving the Students Performance
- Identifying the slow learners, if any, in any specific subject and requesting the teachers concerned to provide some additional help or guidance or coaching to such slow learners as frequently as possible.
- 8.2 The class committee for a class under a particular programme is normally constituted by the Head of the Department. However, if the students of different programmes are mixed in a class, the class committee is to be constituted by the Head of the Institution.
- 8.3 The class committee shall be constituted on the first working day of any semester or earlier.
- 8.4 At least 2 student representatives (usually 1 boy and 1 girl) shall be included in the class committee.
- 8.5 The chairperson of the class committee shall invite the Class advisor(s) and the Head of the Department to the meeting of the class committee.
- 8.6 The Head of the Institution may participate in any class committee of the institution.
- 8.7 The Chairperson of the Class Committee is required to prepare the minutes of every meeting, submit the same to the Head of the Institution within two days of the meeting and arrange to circulate among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the Head of the Institution.
- 8.8 The first meeting of the class committee shall be held within one week from the date of commencement of the semester in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held at suitable intervals. During these meetings the student members, representing the entire class, shall meaningfully interact and express the opinions and suggestions of the class students to improve the effectiveness of the teaching-learning process.

#### 8.9 Online Feedback

Online Feedback from students shall be collected for every subject about the faculty for various parameters and the consolidated Feedback Information shall also be conveyed to the concerned faculty member through respective HoD to improve the Teaching Process by the Faculty members.

#### 9 COURSE COMMITTEE FOR COMMON COURSES

Each common course offered to more than one group of students shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the course Coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course committee' shall meet as often as possible and ensure uniform evaluation of the tests and arrive at a common scheme of evaluation for the tests. Wherever it is feasible, the course committee may also prepare a common question paper for the Assessment Test(s).

#### 10 ATTENDANCE REQUIREMENTS FOR COMPLETION OF A SEMESTER

10.1 A candidate who has fulfilled the following conditions shall be deemed to have satisfied the attendance requirements for completion of a semester.

Ideally every student is expected to attend all classes and earn 100% attendance. However in order to allow provision for certain unavoidable reasons such as prolonged hospitalization/ accident/specific illness, the student is expected to earn a minimum of 80% attendance to become eligible to write the End-Semester Examinations.

Therefore, every student shall secure not less than 80% of overall attendance in that semester as per clause 4.3.

- 10.2 However, a candidate who <u>secures overall attendance between 65% and 79%</u> in that current semester due to medical reasons (prolonged hospitalization / accident / specific illness / participation in sports events) may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate / sports participation certificate to the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.
- 10.3 Candidates who could secure less than 65% overall attendance and **Candidates who do not** satisfy the clauses 10.1 & 10.2 will not be permitted to write the end-semester examination of that semester and are not permitted to go to next semester. They are required to repeat the incomplete semester in the next academic year.

#### 11 END SEMESTER EXAMINATIONS

- 11.1 Performance in each course of study shall be evaluated based on (i) continuous internal assessment throughout the semester and (ii) End Semester Examination.
- 11.2 Each course, both theory and practical (including project work & viva voce Examinations) shall beevaluated for a maximum of 100 marks.

For all theory and practical courses including project work, the continuous internal assessment will carry **40 marks** while the End - Semester examination will carry **60 marks**.

- 11.3 Industrial training and seminar shall carry 100 marks and shall be evaluated through internal assessment only.
- 11.4 The end semester examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.
- 11.5 The end semester examination for project work shall consist of an evaluation of the final report submitted by the student by an external examiner and an internal examiner, followed by a vivavoce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.
- 11.6 For the end semester examination in both theory and practical courses including project work, the internal and external examiners shall be appointed by the Controller of Examinations.

#### 12 PROCEDURES FOR AWARDING MARKS

For all theory and practical courses (including project work) the end semester examination is

conducted for 100 marks and the total mark shall be reduced to 60 and rounded to the nearest integer. The continuous assessment shall be for a maximum of 40 marks. The continuous assessment shall be awarded as per the procedure given below:

#### 12.1 Theory Courses

Three tests each carrying 100 marks shall be conducted during the semester by the Department / College. The total marks obtained in all tests put together out of 300, shall be proportionately reduced for 20 marks and rounded to the nearest integer (This also implies equal weightage to all the three tests). The remaining 20 marks will be awarded based on the other continuous assessments like MCQs (5 Marks), Assignment (5 Marks), Mini Project/others (5 Marks), and attendance (5 Marks).

#### 12.2 Laboratory Courses

The maximum marks for Internal Assessment shall be 40 in case of practical courses. Every practical exercise/ experiment shall be evaluated based on the conduct of the experiment / exercise and records maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 40 is as follows: 20 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory, 10 marks for the test and 10 marks for the attendance.

#### 12.3 Theory Courses with Laboratory Integrated Component

If there is a theory course with a Laboratory component, there shall be three tests: the first two tests (each 100 marks) will be from theory portions and the third test (maximum mark 100) will befor the laboratory component. The sum of marks of the first two tests shall be reduced to 60 marks and the third test mark shall be reduced to 40 marks. The sum of these 100 marks may then be arrived at for 40 marks and rounded to the nearest integer.

#### 12.4 Other Employability Enhancement Courses

- (a) The seminar / Case study is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three-member committee appointed by the Head of the Institution will evaluate the seminar. At the end of the semester, the marks can be consolidated and taken as the final mark. The evaluationshall be based on the seminar paper (40%), the presentation (40%) and response to thequestions asked during the presentation (20%).
- (b) The Industrial / Practical Training, Summer Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial/Practical training/internship/Summer Project, the candidate shall submit a certificate from the organization where he / she has undergone training and a brief report. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution. The certificates (issued by the organization) submitted by the students and mark list shall be forwarded to the Controller of Examinations with the approval of the Head of the Institution.

# 12.5 Assessment for Value Added Course

- The one / two credit course shall carry 100 marks and shall be evaluated through **continuous** assessments only.
- Two Assessments shall be conducted during the semester by the Department concerned.

- The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer.
- A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall monitor the evaluation process.
- The list of students along with the marks and the grades earned may be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.

# 12.6 Assessment for Online Courses

Students may be permitted to credit online courses (which are provided with a certificate) subject to a maximum of three credits. The approved list of online courses will be provided by the BoS Chairman with the approval of the Head of the Institution from time to time. These online courses of 3 credits (8 Week Courses – 3 OR 12 Week Courses -2) can be considered instead of one elective course as approved by BoS of the respective Department. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Institution. The course shall be evaluated through the End Semester Examination conducted by Controller of Examinations of the Institution.

#### 12.7 Attendance Record

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks, and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the department will put his signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years). The Academic Audit Team may verify the records of attendance and assessment of both current and previous semesters.

#### 12.8 Marks for Attendance

Attendance marks (**rounded to the nearest integer)** for the theory and laboratory courses will be awarded as per the procedure given below:

Attendance %	Theory Course	Laboratory Course
97 to 100	5	10
93 to 96	4	8
89 to 92	3	6
85 to 88	2	4
80 to 84	1	2

The maximum marks assigned to different courses shall be as given below:

Each of the theory and practical courses (including project work) shall carry a maximum of 100 marks of which 40 marks will be through internal assessment and the End Semester Examination (ESE) will carry 60 marks.

#### 13 REQUIREMENTS FOR APPEARING FOR SEMESTER EXAMINATION

- 13.1 A candidate shall normally be permitted to appear for the End semester examinations of the current semester if he/she has satisfied the semester completion requirements as per clauses 10.1 & 10.2 and has registered for examination in all courses of the current semester.
- 13.2 Further, registration is mandatory for all the courses in the current semester as well as for arrear(s) course(s) for the end semester examinations failing which, the candidate will not be permitted to move to the higher semester.
- 13.3 A student who has passed all the courses prescribed in the curriculum for the award of the degree shall not be permitted to re-enroll to improve his/her marks in a course or the aggregate marks / CGPA.

#### 14 PASSING REQUIREMENTS

- 14.1 A candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End Semester Examinations] with a minimum of 50% of the marks prescribed for the End-Semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and practical courses including project work.
- 14.2 If a student fails to secure a pass in courses in any semester, he/she is allowed to write arrear examinations in the supplementary/arrear examinations conducted within a period of one month after the publication of results, when the examination is conducted in that course he/she should continue to register and reappear for the examinations in the failed subjects till he/she secures a pass. However, the absentees in any current semester examinations may be permitted to write the supplementary examination conducted within a period of one month after the publication of results is subject to, the valid reason provided by the student and the recommendation by the HoD with approval of the Academic Council.
- 14.3 The continuous internal assessment marks obtained by the candidate in current semester shall be retained and carried forward upto next three consecutive semesters and their internal marks shall be carried over for the above mentioned period of three consecutive semesters.

In case, if he/she has not successfully completed all the courses of semester I at the end of semester IV, he/she shall redo the semester I courses along with regular students. For the subsequent semesters of II, III and IV, the same procedure shall be followed, subject to the maximum permissible period for this programme.

- 14.4 The passing requirement for the courses which are assessed only through purely internal assessment (EEC courses except project work), is 50% of the internal assessment marks only.
- 14.5 A student can apply for Photocopy and Review of the student's semester examination answer paper in a theory course, within 1 week from the declaration of results, on payment of a prescribed fee along with prescribed application to the CoE through the Head of the Institution. The CoE will arrange for the review and the results will be intimated to the student concerned through the Head of the Institution. Review is not permitted for laboratory course and project work.

#### 15 AWARD OF LETTER GRADES

15.1 All assessments of a course will be evaluated on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain

number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each subject as detailed below:

Letter Grade	Grade Points	Marks Range
O (Outstanding)	10	91 - 100
A + (Excellent)	9	81 - 90
A (Very Good)	8	71 – 80
B + (Good)	7	61 – 70
B (Average)	6	50 - 60
RA	0	<50
SA (Shortage of Attendance)	0	
W	0	

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+" or "B".

'SA' denotes shortage of attendance (as per clause 10.3) and hence prevention from writing the end semester examinations. 'SA' will appear only in the result sheet.

**"RA"** denotes that the student has failed to pass in that course. **"W**" denotes **withdrawal** from the exam for the particular course. The grades RA and W will figure both in Marks Sheet as well as in Result Sheet. In both cases the student has to earn Continuous Assessment marks and appear for the End Semester Examinations.

If the grade W is given to course, the attendance requirement need not be satisfied.

If the grade RA is given to a core **theory course**, the attendance requirement need not be satisfied, but if the grade RA is given to a **Laboratory Course/ Project work / Seminar and any other EEC course**, the attendance requirements (vide clause 10) should be satisfied.

15.2 The grades O, A+, A, B+, B obtained for the one credit course shall figure in the Mark sheet under the title 'Value Added Courses'. The Courses for which the grades are RA, SA will not figure in the mark sheet.

#### 15.3 GRADE SHEET

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The college in which the candidate has studied.
- The list of courses enrolled during the semester and the grades scored.
- The Grade Point Average (GPA) for the semester and
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA for a semester is the ratio of the sum of the products of the number of credits for courses acquired and the corresponding points to the sum of the number of credits for the courses acquired in the semester. CGPA will be calculated in a similar manner, considering all the courses registered from first semester. RA grades will be excluded for calculating GPA and CGPA.

$$GPA/CGPA = \frac{\begin{array}{c}n\\\sum C_{i} GP_{i}\\i=1\end{array}}{\begin{array}{c}n\\\sum C_{i}\\j=1\end{array}}$$

where

C<sub>i</sub> is the number of credits assigned to the course

**GP**<sub>i</sub> is the Grade point corresponding to the grade obtained for each Course **n** is number of all Courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of **CGPA**.

# 16 ELIGIBILITY FOR THE AWARD OF THE DEGREE

- 16.1 A student shall be declared to be eligible for the award of the PG Degree (M.E.) provided the student has
  - i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

#### ii. a. M.E.(Full Time)

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 4 semesters within a maximum period of 4 years reckoned from the commencement of the first semester to which the candidate was admitted.

#### b. M.E.(Part Time)

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 6 semesters within a maximum period of 6 years reckoned from the commencement of the first semester to which the candidate was admitted.

- iii. No disciplinary action pending against the student.
- iv. The award of Degree must have been approved by the Syndicate of the University.

#### 17 CLASSIFICATION OF THE DEGREE AWARDED

#### 17.1 FIRST CLASS WITH DISTINCTION:

A Student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction**:

#### M.E. (Full Time)

- Should have passed the examination in all the courses of all the four semesters in the student's First Appearance within **three** years, which includes authorized break of study of one year (if availed). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- Should NOT have been prevented from writing End Semester Examination due to lack of attendance in any of the courses.

# M.E. (Part Time)

 Should have passed the examination in all the courses of all the six semesters in the student's First Appearance within four years, which includes authorized break of study of one year (if availed). Withdrawal from examination (vide Clause 18) will not be considered as an appearance.

- Should have secured a CGPA of not less than **8.50**.
- Should NOT have been prevented from writing End Semester Examination due to lack of attendance in any of the courses.

# 17.2 FIRST CLASS:

A student who satisfies the following conditions shall be declared to have passed the examination in **First class**:

# M.E. (Full Time)

- Should have passed the examination in all the courses of all four semesters within three years, which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than 7.00.

# M.E. (Part Time)

- Should have passed the examination in all the courses of all six semesters **within four years**, which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than **7.00**.

# 17.3 SECOND CLASS:

All other students (not covered in clauses 17.1 and 17.2) who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.

17.4 A student who is absent in End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 18) for the purpose of classification.

#### 17.5 Valuation

Double valuation is adopted for all the theory courses to overcome any subjectivity in single valuation in the end semester examinations. So the provision for revaluation does not arise. However, if a student wants to appeal for photocopy of the answer paper and review of the result in any subject, he/she can submit a challenge review applications to the office of the Controller of Examinations of the Institution. A committee consisting of the Head of the Department, concerned course instructor and a subject expert (Internal/External) nominated by the CoE will review and give its recommendations.

17.5.1 If the <u>difference of total marks obtained between two valuations is less than 15 marks</u>, the highest mark among the two valuations will be considered for the award of marks.

17.5.2 If the difference in total marks obtained between two valuations is more than 15 marks, a third valuation is applicable. Out of the three valuations, the highest mark between two nearest marks (the mark obtained in third valuation and the marks obtained nearer to the third valuation out of the first two valuations) shall be considered for the award of marks. However, the difference between these two nearest marks must be less than 15.

# 18 PROVISION FOR WITHDRAWAL FROM EXAMINATION:

- 18.1 A student may, for valid reasons, (medically unfit /unexpected family situations/sports approved by HoD and Head of the Institution) be granted permission to withdraw from appearing for the end semester examination in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to the Academic Council through the Head of the Institution with the required documents.
- 18.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 10) and if it is made within TEN days prior to the commencement of the examination in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations.
- 18.3 Notwithstanding the requirement of mandatory 10 days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 18.4 In case of withdrawal from a course / courses (Clause 13) the course will figure both in Marks Sheet as well as in Result Sheet. **Withdrawal essentially requires the student to register for the course/courses.** The student has to register for the course, fulfill the attendance requirements (vide clause 10), earn continuous assessment marks and attend the end semester examination. However, withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.
- 18.5 Withdrawal is permitted for the end semester examinations in the final semester only if the period of study of the student concerned does not exceed 3 years as per clause 17.1.

#### **19 AUTHORIZED BREAK OF STUDY FROM A PROGRAMME**

- 19.1 A student is permitted to go on break of study for a maximum period of one year as a single spell.
- 19.2 Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation, the candidate may apply for additional break of study not exceeding another one year by paying prescribed fee for break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Academic Council, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of rejoining the programme.
- 19.3 The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Academic Council in the prescribed format through Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 19.4 The authorized break of study would not be counted towards the duration specified for passing all the courses for the purpose of classification (vide Clause 17.1).
- 19.5 The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 4.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 19.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 19.1)

# 20 DISCIPLINE

- 20.1 Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the Institution. The Head of Institution shall constitute a disciplinary committee consisting of Head of Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the Academic Council about the disciplinary action
- 20.2 If a student indulges in malpractice in any of the End Semester / internal examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

#### 21 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution may from time-to-time revise, amend or change the Regulations, Curriculum, Syllabus and scheme of examinations through the Academic Council with the approval of Governing Body.

-----

recommended for approval.

If a student indulges in malpractice in any of the End Semester / internal examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

# 22 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and scheme of examinations through the Academic Council with the approval of Governing Body.

- - - - - -



# **R.M.K. ENGINEERING COLLEGE**

(An Autonomous Institution)

(Affiliated to Anna University, Chennai / Approved by AICTE, New Delhi Accredited by NAAC with A+ Grade / All the Eligible UG Programs are Accredited by NBA, New Delhi)



# AMENDMENTS TO THE REGULATION 2020 FOR B.E./B.Tech./M.E (UG / PG) DEGREE PROGRAMME APPROVED BY 5<sup>th</sup> ACADEMIC COUNCIL MEETING HELD ON 15.07.2022

- With reference to the circular Letter No. 4041/AU/CAC/Rel. Grading/2022 dated 25.06.2022 received from Anna University the relative grading and uniform valuation was implemented for all the students from the academic year 2021-22 onwards as given in Annexure -I about the Uniform evaluation method with Relative grading for the students who have joined from the academic year 2021 22 onwards.
- The uniform valuation consists of the norms to be followed for the award of the internal and end semester examination of all type of courses, passing requirements, relative grading and award of letter grades and classification of degree. Further details are given in Annexure I

(37/22

Principal/Academic Council Chairman Dr. K.A. MOHAMED JUNAID, M.E., Ph.D., PRINCIPAL R.M.K. ENGINEERING COLLEGE R.S.M. NAGAR, KAVARAIPETTAI-601 206 GUMMIDIPOONDI TALUK, TIRUVALLUR DIST.



# ANNA UNIVERSITY

SARDAR PATEL ROAD, CHENNAI-600 025. www.annauniy.edu Phone : +91 44 2235 2161 : +91 44 2235 7003 Office : +91 44 2235 7004 Fax : +91 44 2235 1956 E-Mail : registrar@annauniv.edu

Letter No.4041/AU/CAC/Rel. Grading/2022

25.06.2022

To The Principals of Autonomous Colleges Anna University.

Sir/Madam,

- Sub: Anna University Uniform Evaluation Method of Students based on Relative Grading Reg.
- Ref: Approval of Vice-Chancellor, dated 24.06.2022.

\*\*\*\*

With reference to the above, the Academic Council of Anna University had decided to introduce a uniform evaluation method for all the UG / PG students of University Departments, Non-Autonomous Colleges and Autonomous Colleges affiliated to Anna University, who all joined from the academic year 2021 - 2022 onwards.

This uniform evaluation method consists of the norms to be followed for the award of marks for internal and end semester examinations of all types of courses, passing requirements, relative grading and award of letter grades and classification of degree. Further details are provided in Annexure I.

This shall be followed for the evaluation and passing of results for all the UG / PG students who have joined from the academic year 2021-2022 onwards in University Departments, Non-autonomous and Autonomous colleges affiliated to Anna University.

This decision is taken with the approval of the competent authority.

This may be taken up for **ratification** in the forthcoming Academic Council of Anna University, Chennai.

This is for your information and necessary action at your end.

REGISTRAR i/c

Encl: Annexure I

#### Copy to:

12

- 1. PS to Vice Chancellor
- 2. PA to Registrar
- The Chairpersons, Faculty of Civil / Mechanical / Electrical / ICE / Technology / Management Sciences / S&H / Architecture & Planning, AU, Ch – 25.
- 4. Office of the Controller of Examinations.
- 5. The Stock File, CAC.

# ANNEXURE - I

A few excerpts from Regulation 2021 of B.E/B.Tech Programmes of Non-Autonomous colleges Affiliated to Anna University is given below. The same shall be adopted for all the UG/PG students following from academic year 2021-2022 onwards studying in University Departments and Autonomous Colleges of Anna University.

#### PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all the theory courses, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below:

#### THEORY COURSES

Two assessments each carrying 100 marks shall be conducted during the semester by the Department / College concerned. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (1	00 Marks)	Assessment II (1	00 Marks)	
Individual Assignment / Case Study / Seminar / Mini Project	Written Test	Individual Assignment / Case Study / Seminar / Mini Project	Written Test	<b>Total</b> Internal Assessment
40	60	40	60	200*

\*The weighted average shall be converted into 40 marks for internal Assessment.

A minimum of two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar/Mini project and Test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

#### LABORATORY COURSES

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records are t o b e maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer.

Internal Assessment (100 Marks)*	
Evaluation of Laboratory Observation, Record	Test
75	25

\* Internal assessment marks shall be converted into 60 marks

# THEORY COURSES WITH LABORATORY COMPONENT

If there is a theory course with laboratory component, there shall be two assessments: the first assessment (maximum mark is 100) will be similar to assessment of theory course and the second assessment (maximum mark is 100) will be similar to assessment of laboratory course respectively. The weightage of first assessment shall be 40 % and the second assessment be 60%.

The weighted average of these two assessments shall be converted into 50 marks and rounded to the nearest integer.

Assessment I (40% weightage) (Theory Component)				
Individual Assignment / Case Study / Seminar / Mini Project	Written Test	Evaluation of Laboratory Observation, Record	Test	Internal Assessment
40	60	75	25	200*

\*The weighted average shall be converted into 50 marks for internal Assessment.

#### PASSING REQUIREMENTS

A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).

If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA + End Semester Examination), then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the University end semester examinations alone.

#### AWARD OF LETTER GRADES

The award of letter grades will be decided based on relative grading principle. The relative grading is applicable to ONLY those students who have passed the examination as per the passing requirements enumerated above. For those students who have not passed the examination, Reappearance (RA) shall be awarded as shown in the below Table.

For those students who have passed the course, the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. For a given course, if the students' strength is greater than 30, the relative grading method shall be adopted. However, if the students' strength is less than 30 then the fixed grading shall be followed with the grade range as specified below.

0	A+	Α	B+	В	С	RA
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 – 55	< 50

The performance of a student shall be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points*
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
C (Satisfactory)	5
RA (Re-appearance)	0
SA (Shortage of Attendance)	0
W (Withdrawal)	0

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C". 'SA' denotes shortage of attendance and hence prevented from writing the end semester examinations. 'SA' will appear only in the result sheet.

**"RA"** denotes that the student has failed to pass in that course. **"W**" denotes **withdrawal** from the exam for the particular course. The grades RA and W will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations.

If the grade RA is given to **Theory Courses**/ Laboratory Courses it is not required to satisfy the attendance requirements, but has to appear for the end semester examination and fulfil the passing requirments to earn a pass in the respective courses.

If the grade RA is given to **EEC (Employability Enhancement Course) (except Project Work), which are evaluated only through internal assessment,** the student shall register for the course again in the subsequent semester, fulfill the passing requirements to earn pass in the course. However, attendance requirement need not be satisfied.

#### CLASSIFICATION OF THE DEGREE AWARDED

#### FIRST CLASS WITH DISTINCTION

A student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction**:

- Should have passed the examination in all the courses of all the eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) in the student's First Appearance within **five** years (Six years in the case of Mechanical (Sandwich) and Four years in the case of Lateral Entry). Withdrawal from examination will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed of) is included in the five years (Six years in the case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examination due to lack of attendance in any semester.

#### FIRST CLASS:

A student who satisfies the following conditions shall be declared to have passed the examination in **First class**:

- Should have passed the examination in all the courses of all eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) within five years. (Six years in case of Mechanical (Sandwich) and Four years in the case of Lateral Entry).
- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (Six years in case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class.
- Should have secured a CGPA of not less than 6.50.

#### SECOND CLASS:

All other students who qualify for the award of the degree shall be declared to have passed the examination in **Second Class**.

The corresponding specific changes are to be made to B.Arch. / M.Arch. /M.Plan. / MBA / M.Sc.(5years).

\*\*\*\*\*\*

Jund

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