



**R.M.K. ENGINEERING COLLEGE**  
**RSM Nagar, Kavaraipettai – 601 206**



**Department of Electrical and Electronics Engineering**

**List of courses offered during 2018-19 (Odd Semester)**

Sl. No.	Semester	Theory/Practical	Course Code / Course Name
1	3	Theory	MA8353 – Transforms and Partial Differential Equations
2	3	Theory	EE8351 - Digital Logic Circuits
3	3	Theory	EE8391 – Electromagnetic Theory
4	3	Theory	EE8301 – Electrical Machines- I
5	3	Theory	EC8353– Electron Devices and Circuits
6	3	Theory	ME8792 - Power Plant Engineering
7	3	Practical	EC8311- Electronics Laboratory
8	3	Practical	EE8311- Electrical Machines Laboratory - I
9	5	Theory	EE 6501 – Power System Analysis
10	5	Theory	EE6502- Microprocessor And Microcontroller
11	5	Theory	ME6701 – Power Plant Engineering
12	5	Theory	EE6503– Power Electronics
13	5	Theory	EE6405 – Electrical Machines – II
14	5	Theory	IC6501- Control Systems
15	5	Practical	EE6511- Control and Instrumentation Laboratory
16	5	Practical	GE6674 - Communication and Soft Skills
17	5	Practical	EE6512- Electrical Machines Laboratory - II
18	7	Theory	EE6701 – High voltage engineering
19	7	Theory	EE6702 – Protection and Switchgear
20	7	Theory	EE6703– Special Electrical Machines
21	7	Theory	MG6851- Principles Of Management
22	7	Theory	EI6703 – Fiber Optics & Laser Instruments
23	7	Theory	EE 6008 –Microcontroller Based System Design
24	7	Practical	EE6711 - Power System Simulation Lab
25	7	Practical	EE6712- Comprehension Laboratory Lab

**Course outcomes 2018-2019 odd semester**

**Third Semester**

<b>Course code: MA8353</b>	
<b>Course Name: Transforms and Partial Differential Equations</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO1	Apply the solutions of partial differential equations
CO2	Utilize the Fourier series problems in current flow, sound waves
CO3	Find one dimensional wave equation and heat equations
CO4	Inference of Fourier transforms is in continuous time signals
CO5	Apply the Z transforms in discrete time signals
CO6	Summarize the physical problems of engineering.

<b>Course code:EE8351</b>	
<b>Course Name: Digital Logic Circuits</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>CO – 1</b>	To study various number systems and simplify the logical expressions using Boolean functions
<b>CO – 2</b>	To study combinational circuits
<b>CO – 3</b>	To design various synchronous and asynchronous circuits.
<b>CO – 4</b>	To introduce asynchronous sequential circuits and PLDs

<b>Course code :EE8391</b>	
<b>Course Name: Electromagnetic Theory</b>	

<b>CO – 5</b>	To introduce digital simulation for development of application oriented logic circuits.
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CO	Course outcome(CO) - Statements
CO – 1	Interpret the coordinate systems used in electromagnetic theory
<b>Course code: EE8353</b>	<b>Electric and Magnetic field intensity for continuous charge distributions</b>
<b>Course Name: Electronic Devices and Circuits</b>	<b>Develop the expression for capacitance and inductance in the continuous charge distributions</b>
CO	Course outcome(CO) – Statements
C205.1	Explain the structure, characteristics and biasing of various PN junction diodes and its applications
CO – 4	Apply the boundary conditions for electric and magnetic field intensity
C205.2	Explain the structure, characteristics and biasing of various types of transistors, thyristors and IGBT.
CO – 5	Illustrate the generation of EMF in static and dynamic conditions
C205.3	Analyze the properties of electromagnetic wave propagation from Maxwell's equation.
C205.4	Analyze the BJT amplifier circuits using small signal and high frequency model.
C205.5	Explain the differential amplifier and types of power amplifier and derive its efficiency.

<b>Course code : EE8301</b>	
<b>Course Name: Electrical Machines - 1</b>	
CO	Course outcome(CO) - Statements
CO . 1	To familiarize with Magnetic-circuit analysis and introduce magnetic materials
CO . 2	To understand Constructional details, the principle of operation, prediction of performance, the methods of testing the transformers and three phase transformer connections
CO . 3	To understand the Working principles of electrical machines using the concepts of electromechanical energy conversion principles and derive expressions for generated
CO . 4	To understand the Working principles of DC machines as Generator types, determination of their no-load/load characteristics, starting and methods of speed control of motors.

<b>CO .5</b>	To study Various losses taking place in D.C. Motor and to study the different testing methods to arrive at their performance
<b>CO .6</b>	To develop the ability to model and analyze electrical apparatus and their application to power system

<b>Course code : ME8792</b>	
<b>Course Name: Power Plant Engineering</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>CO .1</b>	Explain the layout, construction and working of the components inside a thermal power plant
<b>CO .2</b>	Explain the layout, construction and working of the components inside a Diesel, Gas and Combined cycle power plants
<b>CO.3</b>	Explain the layout, construction and working of the components inside nuclear power plants.
<b>CO.4</b>	Explain the layout, construction and working of the components inside Renewable energy power plants
<b>CO.5</b>	Explain the applications of power plants while extend their knowledge to power plant economics and environmental hazards and estimate the costs of electrical energy production

### Laboratory

<b>Course code:EC8311</b>	
<b>Course Name: Electronics Laboratory</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>CO-1</b>	Explain the characteristics of semiconductor devices
<b>CO-2</b>	Analyze astable and monostable multivibrators

CO-3	Develop differential amplifiers using FET
CO-4	Infer frequency and phase measurements using CRO
CO-5	Construct RC, LC phase shift oscillators
CO-6	Experiment with passive filters

<b>Course code: EE8311</b>	
<b>Course Name: Electrical Machines Laboratory – I</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>COs</b>	<b>Course Outcome : The students, after the completion of the course, are expected to ....</b>
CO.1	Ability to understand and analyze DC Generator
CO.2	Ability to understand and analyze DC Motor
CO.3	Ability to understand and analyse Transformers.

### Fifth Semester

<b>Course code : EE6501</b>	
<b>Course Name: Power System Analysis</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C301.1	Model power system for steady state operating condition
C301.2	Apply Gauss-Seidel method for power flow problem.
C301.3	Apply Newton-Raphson method for Load flow problem.
C301.4	Analyze the system under Balanced faulted conditions.
C301.5	Analyze the system under Un-Balanced faulted conditions.\
C301.6	Analyze the transient behaviour of power system

<b>Course code :EE6502</b>	
<b>Course Name: Microprocessor And Microcontroller</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C302.1	Explain the architecture and functionalities of 8085 Microprocessor.
C302.2	Analyze Assembly level programming in real time applications using 8085.
C302.3	Explain the architecture and functionalities of 8051 Microcontroller.
C302.4	Configure the external peripherals interfacing with the 8085 microprocessor and 8051 microcontroller.
C302.5	Develop skill in simple applications programming with 8051.
C302.6	Compare the programming concepts of 8085 and 8051

<b>Course code : EE6405</b>	
<b>Course Name: Electrical Machines – II</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C305.1</b>	Compare the regulation methods of three phase synchronous generators.
<b>C305.2</b>	Identify the starting &Control techniques of synchronous motor
<b>C305.3</b>	Solve the performance calculations of induction motor
<b>C305.4</b>	Identify the starting and control techniques of 3 phase induction motor
<b>Course Name: Power Plant Engineering</b>	
<b>C305.5</b>	Explain the performance characteristic of single phase induction motors
<del>C303.1</del>	<del>Apply the fundamentals of thermodynamic cycles</del>
<del>C305.6</del>	<del>Interpret the performance characteristic Special motors</del>
<del>C303.2</del>	<del>Model of Diesel and Gas power plants.</del>
<b>C303.3</b>	Apply the atomic physics in nuclear reactors.
<b>C303.4</b>	Make use of renewable energy for power production.
<b>C303.5</b>	Summarize different types of power plant.
<b>C303.6</b>	Plan the economic issues in power sectors.

<b>Course code :EE6503</b>	
<b>Course Name: Power Electronics</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C304.1</b>	Summarize the fundamental concepts of power switching devices.
<b>C304.2</b>	Analyze single phase power converter circuits and their application.
<b>C304.3</b>	Analyze three phase power converter circuits and their application.
<b>C304.4</b>	Analyze switching regulator circuits and their application.
<b>C304.5</b>	Analyze various harmonic reduction techniques.
<b>C304.6</b>	Develop skills to simulate converter circuits using simulation software.

<b>Course code: IC6501</b>	
<b>Course Name: Control Systems</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C306.1</b>	<b>Analyze</b> electromechanical systems by mathematical modelling.
<b>C306.2</b>	<b>Illustrate</b> the time response of first and second order systems using standard test signals.
<b>C306.3</b>	<b>Examine</b> the frequency-domain response of closed loop system
<b>C306.4</b>	<b>Identify</b> a compensator system satisfying requirements

<b>C306.5</b>	<b>Develop</b> system equations in state-variable form (state variable models)
<b>C306.6</b>	<b>Analyze</b> a control theory applications to AC motors

### Laboratory

<b>Course code: EE6511</b>	
<b>Course Name: Control and Instrumentation Laboratory</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C307.1</b>	Infer the stability of the system using controllers
<b>C307.2</b>	Modeling of various type of First and second order systems
<b>C307.3</b>	Analyze the position of DC and AC control system
<b>C307.4</b>	Experiment with balancing of AC and DC bridges
<b>C307.5</b>	Analyze the performance characteristics of instrument.
<b>C307.6</b>	Analyze the complex control systems problems in process industries

<b>Course code : GE6674</b>	
<b>Course Name: Communication and Soft Skills- Laboratory Based</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C308.1</b>	Take part in international exams like IELTS and TOEFL
<b>C308.2</b>	Develop writing skills
<b>C308.3</b>	Experiment with speaking skills
<b>C308.4</b>	Build leadership qualities
<b>C308.5</b>	Interpret contextual knowledge clearly
<b>C308.6</b>	Utilize mass media and technology effectively

<b>Course code: EE6512</b>	
<b>Course Name: Electrical Machines Laboratory-II</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
<b>C309.1</b>	Examine the regulation of three phase non salient pole alternator

<b>C309.2</b>	Examine the regulation of three phase salient pole alternator
<b>C309.3</b>	Examine the performance characteristics of synchronous motor
<b>C309.4</b>	Analyze the load characteristic of three phase induction motor
<b>C309.5</b>	Analyze the load characteristic of single phase induction motor
<b>C309.6</b>	Experiment with the starting methods of induction motor

### Seventh Semester

<b>Course code : EE6701</b>	
<b>Course Name: High voltage engineering</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C401.1	Describe the causes of power systems over voltages
C401.2	Summarize the impact of over voltages on dielectrics
C401.3	Explain the breakdown mechanism of dielectrics
C401.4	Classify protection devices to prevent Flashovers
C401.5	Discuss the testing of power system apparatus
C401.6	Summarize the methods of HV measurements

<b>Course code : EE6702</b>	
<b>Course Name: Protection and Switchgear</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C402.1	Identify the faults in Power system
C402.2	Interpret the working of relays and their characteristics
C402.3	Explain the types of Apparatus protection
C402.4	Analyze the arcing phenomenon and interruption
C402.5	Explain the different Circuit Breakers
C402.6	Classify the testing of Circuit Breakers



<b>Course code : EE6703</b>	
<b>Course Name: Special Electrical Machines</b>	
<b>Course code: MG6851</b>	<b>Course outcome(CO) - Statements</b>
<b>Course Name: Principles Of Management</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C403.1	Explain the performance characteristics of synchronous reluctance motors.
C403.2	Classify the excitation modes of stepping motor
C404.1	Define the concept of management
C403.3	Construct the power converter circuits for Switched reluctance motor
C404.2	Identify current trends and issues in management
C403.4	Analyze the magnetic characteristics of brushless D.C motor
C404.3	Explain the importance of planning and objective setting
C403.5	Compare the control methods of permanent magnet synchronous motor
C404.4	Identify the authority and responsibility among people
C404.5	Analyze the logical sequence operation of special machines by using Software program.
C404.6	Apply leadership and motivation theories
C404.6	Examine qualitative and quantitative information to control methods

<b>Course code : EI6703</b>	
<b>Course Name: Fiber Optics &amp; Laser Instruments</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C405.1	Compare types of Optical fibers
C405.2	Identify optical sources and Detectors
C405.3	Relate the industrial applications of optical fibers
C405.4	Summarize the LASER types
C405.5	Relate the industrial applications of LASER
C405.6	Infer holography and medical applications of LASER

<b>Course code : EE6008</b>	
<b>Course Name: Microcontroller Based System Design</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C405.1	Impart knowledge about Architecture of PIC microcontroller
C405.2	Interrupts and timers
C405.3	Peripheral devices for data communication and transfer
C405.4	Functional blocks of ARM processor
C405.5	Architecture of ARM processors
C405.6	Design and programming of microcontroller based system design-case studies and exercises

### Laboratory

<b>Course Code: EE6711</b>	
<b>Course Name: Power System Simulation lab</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C407.1	Model the Transmission line of power system
C407.2	Develop Bus Impedance and Admittance matrices for a network
C407.3	Analysis of Load flow by numerical methods
C407.4	Determine the fault current for the N bus system
C407.5	Examine the stability level of Single and Multi machine system
C407.6	Analyze the load frequency dynamics of multi area system

<b>Course Code: : EE6712</b>	
<b>Course Name: Comprehension Laboratory</b>	
<b>CO</b>	<b>Course outcome(CO) - Statements</b>
C408.1	Explain Engineering fundamentals
C408.2	Apply mathematics to engineering problem
C408.3	Apply Engineering fundamentals to complex circuits
C408.4	Take part in discussion as a leader in diverse teams
C408.5	Extend knowledge on communication and presentation skills
C408.6	Develop managerial skills to establish start ups



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**Department of Electrical and Electronics Engineering**

**List of courses offered during 2018-19 (Even Semester)**

Sl. No.	Semester	Theory/Practical	Course Code / Course Name
1	4	Theory	MA8491 – Numerical Methods
2	4	Theory	EE8401 - Electrical Machines – II
3	4	Theory	EE8402 – Transmission and Distribution
4	4	Theory	EE8403 – Measurements and Instrumentation
5	4	Theory	IC8451– Control Systems
6	4	Theory	EE8451 - Linear Integrated Circuits and Applications
7	4	Practical	EE8411- Electrical Machines Laboratory – II
8	4	Practical	EE8461- Linear and Digital Integrated Circuits Laboratory
9	4	Practical	EE8412- Technical Seminar
10	6	Theory	EC6651 – Communication Engineering
11	6	Theory	EE6601- Solid State Drives
12	6	Theory	EE6602 – Embedded Systems
13	6	Theory	EE6603– Power System operation &Control
14	6	Theory	EE6604 – Design of Electrical Machines
15	6	Theory	EE6002- Power System Transients
16	6	Practical	EE6611- Power Electronics and Drives Lab
17	6	Practical	EE6612 - Microprocessors and Microcontrollers Laboratory
18	6	Practical	EE6613- Presentation Skills and Technical Seminar
19	8	Theory	EE6801 – Electric Energy Generation, Utilization and Conservation
20	8	Theory	EE6009 – Power Electronics for Renewable Energy Systems
21	8	Theory	GE6757 – Total Quality Management
22	8	Theory	EE6811- Project Work

**Course outcomes 2018-2019 Even semester**

<b>Course Code: MA8491</b>	
<b>Course Name: Numerical method</b>	
<b>CO</b>	<b>Course outcome (CO) statement</b>
CO 201. 1	Find the solutions of algebraic and transcendental equations
CO 201. 2	Choose power method for Eigen values
CO 201. 3	Apply the concept of Numerical differentiation and integration in engineering
CO 201.4	Examine Initial value problem for Ordinary differential equation
CO 201.5	Apply the boundary value problem in PDE and ODE
CO 201. 6	Solve the Linear system of Equation

<b>Course Code: EE8402</b>	
<b>Course Name: Transmission and Distribution</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 202. 1	Understand the importance and the functioning of transmission line parameters.
CO 202. 2	Understand the concepts of Lines and Insulators
CO 202. 3	Acquire knowledge on the performance of Transmission lines
CO 202.4	Understand the importance of distribution of the electric power in power system
CO 202.5	Acquire knowledge on Underground Capabilities
CO 202. 6	Become familiar with the function of different components used in Transmission and Distribution levels of power system and modelling of these components.

<b>Course code: EE8401</b>	
<b>Course Name: Electrical Machines-II</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 203. 1	Compare the regulation methods of three phase synchronous generators.
CO 203. 2	Identify the starting &Control techniques of synchronous motor.
CO 203. 3	Solve the performance calculations of induction motor.
CO 203.4	Compare the starting and control techniques of 3 phase induction motor.
CO 203.5	Explain the performance characteristic of single phase induction motors.
CO 203. 6	Interpret the performance characteristic Special motors

<b>Course Code: EE8451</b>	
<b>Course Name: Linear Integrated Circuits and Applications</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 204. 1	Signal analysis using Op-amp based circuits.
CO 204. 2	Applications of Op-amp.
CO 204. 3	Functional blocks and the applications of special ICs like Timers, PLL circuits, regulator Circuits
CO 204.4	IC fabrication procedure.

<b>Course Code: EE8403</b>	
<b>Course Name: Measurements and Instrumentation</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 205. 1	Outline the functional elements of measuring instruments
CO 205. 2	Explain the working principle of electrical measuring instruments
CO 205. 3	Interpret the resistance, capacitance and inductance using bridges
CO 205.4	Select the storage devices for measuring electrical quantities
CO 205.5	Choose the analog and digital display devices for measuring electrical quantities
CO 205. 6	Identify the type of electrical transducers for physical quantities

<b>Course Code: IC 8451</b>	
<b>Course Name: Control Systems</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 206. 1	<b>Analyze</b> electromechanical systems by mathematical modeling.
CO 206. 2	<b>Illustrate</b> the time response of first and second order systems using standard test
CO 206. 3	<b>Examine</b> the frequency-domain response of closed loop system
CO 206.4	<b>Identify</b> a compensator system satisfying requirements
CO 206.5	<b>Develop</b> system equations in state-variable form (state variable models)
CO 206. 6	<b>Analyze</b> a control theory applications to AC motors

<b>Course Code: EE8411</b>	
<b>Course Name: Electrical Machines Laboratory – II</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 207. 1	Ability to understand and analyze EMF and MMF methods
CO 207. 2	Ability to analyze the characteristics of V and Inverted V curves
CO 207. 3	Ability to understand the importance of Synchronous machines
CO 207.4	Ability to understand the importance of Induction Machines
CO 207.5	Ability to acquire knowledge on separation of losses

<b>Course Code: EE8461</b>	
<b>Course Name: Linear and Digital Integrated Circuits Laboratory</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 208. 1	Ability to understand and implement Boolean Functions
CO 208. 2	Ability to understand the importance of code conversion
CO 208. 3	Ability to Design and implement 4-bit shift registers
CO 208.4	Ability to acquire knowledge on Application of Op-Amp
CO 208.5	Ability to Design and implement counters using specific counter IC.

<b>Course Code: EE8412</b>	
<b>Course Name: Technical Seminar</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
CO 209. 1	To encourage the students to study advanced engineering developments
CO 209. 2	To prepare and present technical reports.
CO 209. 3	To encourage the students to use various teaching aids such as overhead projectors, power point presentation and demonstrative models.

### Sixth Semester

<b>Course Code: EC6651</b>	
<b>Course Name: Communication Engineering</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C310.1	Illustrate the fundamental concepts of communication systems
C310.2	Identify the elements of digital communication systems
C310.3	Compare the coding techniques for enhancing transmission rate
C310.4	Utilize communication systems with multiple access techniques
C310.5	Analyze digital technologies in satellite communication
C310.6	List the communication schemes in power line carrier communication

<b>Course Code: EE6601</b>	
<b>Course Name: Solid State Drives</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C311.1	Illustrate the characteristics of electric drive
C311.2	Explain the different techniques for DC drive
C311.3	Demonstrate the operation of modern induction motor drive
C311.4	Apply the appropriate methods for the special electric drive
C311.5	Analyze the closed loop controller for DC drive
C311.6	Utilize the closed loop controller for electric drives

<b>Course Code: EE6602</b>	
<b>Course Name: Embedded Systems</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C312.1	Explain the basic building blocks of Embedded systems.
C312.2	Extend Embedded development strategies.
C312.3	Distinguish Bus communication protocols.
C312.4	Summarize Embedded product development phases.
C312.5	Infer RTOS and task communication
C312.6	Experiment with Embedded system applications

<b>Course Code: EE6603</b>	
<b>Course Name: Power System operation &amp;Control</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C313.1	Illustrate the Load forecasting techniques
C313.2	Analyze the frequency control of Interconnected system
C313.3	Model the excitation System of Generator
C313.4	Explain the voltage control techniques of power system
C313.5	Categorize the economic operation of power system
C313.6	Summarize the computer control operation of power system.

<b>Course Code: EE6604</b>	
<b>Course Name: Design of Electrical Machines</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C314.1	Explain the process of heat dissipation in rotating machines
C314.2	Apply magnetic circuit calculations of machines and transformers
C314.3	Calculate parameters associated with the design of a DC machine
C314.4	Calculate parameters associated with the design of a transformer
C314.5	Calculate parameters associated with the design of an induction machine
C314.6	Calculate parameters associated with the design of an synchronous machine



<b>Course Code: EE6002</b>	
<b>Course Name: Power System Transients</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C315.1	Identify the causes of power system transients
C315.2	Explain the effects of transients on power system
C315.3	Analyze normal and abnormal switching transients
C315.4	Illustrate the impact of lightning on power system
C315.5	Outline the path of travelling waves on transmission lines
C315.6	Apply electromagnetic transient program for simulating transient conditions

<b>Course Code: EE6611</b>	
<b>Course Name: Power Electronics and Drives Lab</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C316.1	Demonstration of firing circuits
C316.2	Analyze static and dynamic characteristics of switching devices
C316.3	Experiment with converters.
C316.4	Experiment with switch mode power supplies.
C316.5	Experiment with switching regulators.
C316.6	Analyze the converter circuits using simulation software

<b>Course Code: EE6612</b>	
<b>Course Name: Microprocessors and Microcontrollers Laboratory</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C317.1	Develop the simple arithmetic operations using 8085 processors
C317.2	Explain the interfacing techniques using 8051 microcontrollers
C317.3	Analyze two 8051 kits using serial communication.
C317.4	Develop simple programs using 8051 controllers
C317.5	Demonstrate basic instructions using 8051 microcontroller
C317.6	Design and implementation of embedded system based projects

<b>Course Code: EE6613</b>	
<b>Course Name: Presentation Skills and Technical Seminar</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C318.1	Compare the review process in Presentation
C318.2	Identify the technological developments
C318.3	Build Skill in document preparation
C318.4	Organize technical and non technical reports
C318.5	Utilize various teaching aids and working models
C318.6	Defend the placement interview

### Eighth Semester

<b>Course Code: EE6801</b>	
<b>Course Name: Electric Energy Generation, Utilization and Conservation</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C419.1	Explain the various concepts of renewable energy resources
C419.2	Interpret energy conservation and energy auditing.
C419.3	Develop the illumination systems based on various lightning system
C419.4	Demonstrate the different methods of electric heating and welding
C419.5	Illustrate the traction system and their performance
C419.6	Organize the engineering aspects of electrical energy generation and utilization.

<b>Course Code: EE6009</b>	
<b>Course Name: Power Electronics for Renewable Energy Systems</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C420.1	Interpret knowledge about the stand alone and grid connected renewable energy systems
C420.2	Derive the criteria for designing the power converters for renewable energy applications
C420.3	Analyze the various operating modes of wind electrical generators and solar energy systems
C420.4	Design different power converters for renewable energy systems
C420.5	Develop maximum power point tracking algorithms
C420.6	Analyze power system operation, stability, control and protection

<b>Course Code: GE6757</b>	
<b>Course Name: Total Quality Management</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C421.1	Facilitate the Quality Management principles and its process
C421.2	Explain the customer care management systems
C421.3	Apply the leadership qualities in management
C421.4	Explain the Benchmark in manufacturing system
C421.5	Explain the ISO Auditing system
C421.6	Design the techniques for quality management in the field of manufacturing and services processes.

<b>Course Code: EE6811</b>	
<b>Course Name: Project Work</b>	
<b>CO</b>	<b>Course outcome(CO) – Statements</b>
C422.1	Explain the engineering concepts
C422.2	Solve problems to new situations with knowledge, facts, techniques and rules in a different way
C422.3	Discover new computational platform in electrical & electronics fields
C422.4	Determine the performance of complex power network
C422.5	Formulate real world problem with global outlook
C422.6	Improve the managerial skills to meet the industry