**VAAGDEVI COLLEGE OF ENGINEERING**

**(AUTONOMOUS)**

**ELECTRICAL AND ELECTRONICS ENGINEERING**

**COURSE OUTCOMES FOR B.TECH-EEE R15**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Course Outcome** | | | **Year &Semester** | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year I Sem** | | | | | **Mathematics- I** | | | | **A9001** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | By learning the first order differential equations student can able to find the solutions of many applications in engineering field | | | | | | | | | | | | | | | | | | | | |
| 2 | | | By studying the higher order differential equation many of the transcendental equations are solvable very easily. | | | | | | | | | | | | | | | | | | | | |
| 3 | | | By studying the mean value theorems student can find roots of the algebraic and transcendental equations | | | | | | | | | | | | | | | | | | | | |
| 4 | | | By studying the applications of integration the student able to study find area, surface and volume of a revolution | | | | | | | | | | | | | | | | | | | | |
| 5 | | | The students understand how to find the solution of initial and boundary value problem without finding general solution by Laplace technique | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | **Year &Semester** | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **I Year I Sem** | | | | | **English** | | | | **A9012** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | Usage of correct English Language, written and spoken | | | | | | | | | | | | | | | | | | | | |
| 2 | | | Enrichment of comprehension and fluency | | | | | | | | | | | | | | | | | | | | |
| 3 | | | Gaining confidence in using language in varied situations | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | **Year &Semester** | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year I Sem** | | | | | **Applied Physics** | | | | **A9007** | | | | | | | **L/T/P :4/0 /0** | | |
| By the end of the course, students will be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | The student learns about statistical mechanics and quantum mechanics. | | | | | | | | | | | | | | | | | | | | |
| 2 | | | The student learns about classical free electron theory of metals and its successes along with its drawbacks. | | | | | | | | | | | | | | | | | | | | |
| 3 | | | The student learns about classification of solids by band theory. | | | | | | | | | | | | | | | | | | | | |
| 4 | | | The student learns how to calculate number of charge carriers in a semiconductor. | | | | | | | | | | | | | | | | | | | | |
| 5 | | | The student learns about fabrication of semiconductors into devices. | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | **Year &Semester** | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **I Year I Sem** | | | | | **Engineering Chemistry** | | | | **A9011** | | | | | | | **L/T/P :3/0 /0** | | |
| The basic concepts included in this course will help the student to gain: | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | Applications of electrochemistry understanding different types of cells, their representation, knowledge of electrode potentials, utilization of electrical energy and its conversation into different energies. | | | | | | | | | | | | | | | | | | | |
| 2 | | | | Applicability of electrodes in different fields of analysis | | | | | | | | | | | | | | | | | | | |
| 3 | | | | Understanding the utility of batteries as a source of energy in many electronic gadgets & their types. | | | | | | | | | | | | | | | | | | | |
| 4 | | | | Enhancement of power generation by making of fuel cells. Knowledge of need for alternate source of energy | | | | | | | | | | | | | | | | | | | |
| 5 | | | | Deterioration of metal under the influence of environment, Mechanism of corrosion, Factors affecting corrosion, Prevention of corrosion using various methods & A basic knowledge of surface coatings. | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | **Year &Semester** | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year I Sem** | | | | **Engineering Graphics** | | | | **A9303** | | | | | | | **L/T/P :2/0 /4** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | Understand and draw the different types of conic sections | | | | | | | | | | | | | | | | | | | |
| 2 | | | | Analyze the projections of points, straight lines, plane surfaces, solids at different positions and angles | | | | | | | | | | | | | | | | | | | |
| 3 | | | | Convert orthographic views into isometric views and vice versa | | | | | | | | | | | | | | | | | | | |
| 4 | | | | Perform sections of solids, development of surfaces and their applications in human life. | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | **Year &Semester** | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **I Year I Sem** | | | | **Applied Physics Lab** | | | | **A9008** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | The laboratory course helps the student how to operate different equipments related to engineering. It also allows the student to develop experimental skills to design new experiments in engineering. | | | | | | | | | | | | | | | | | | | |
| 2 | | | | The course enlightens the student about modern equipment like solar cell, optical fibre etc. | | | | | | | | | | | | | | | | | | | |
| 3 | | | | With the exposure to these experiments, the student can compare the theory and correlate with experiment. | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | **Year &Semester** | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 2** | |
| **I Year I Sem** | | | | **Engineering Workshop/IT Workshop** | | | | | | **A9307** | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | Know the fundamental knowledge of various trades and their usage in real time applications | | | | | | | | | | | | | | | | | | | |
| 2 | | | | Gain knowledge of Foundry, Welding, Black smithy, Fitting, Machine shop and house wiring. | | | | | | | | | | | | | | | | | | | |
| 3 | | | | Understand the basis for analyzing power tools in construction and wood working, electrical engineering and mechanical engineering. | | | | | | | | | | | | | | | | | | | |
| 4 | | | | Use basic concepts of computer hardware for assembly and disassembly | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | **Year &Semester** | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year II Sem** | | | | **Mathematics – II** | | | | **A9002** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | The student learns about the rank of the matrix and solving of system of simultaneous linear equations. | | | | | | | | | | | | | | | | | | | |
| 2 | | | | The student learns about how to find the eigen values and eigen vectors of different engineering fields and they use concept of matrices in the development of programming languages. | | | | | | | | | | | | | | | | | | | |
| 3 | | | | By studying the Fourier series & Fourier transforms students are able to solve the problem related to theory of circuits and many applications in electronics engineering and communication engineering | | | | | | | | | | | | | | | | | | | |
| 4 | | | | The concept of vector integrations (Green’s, Gauss &Stoke’s theorems), students are able to convert double integration into line integrations and triple integrations. | | | | | | | | | | | | | | | | | | | |
| 5 | | | | By studying the partial differential equation students are able to solve the many applications of mechanical and civil Engineering | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | **Year &Semester** | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **I Year II Sem** | | | | **Environmental Studies** | | | | **A9014** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | Understanding of Ecosystem, | | | | | | | | | | | | | | | | | | |
| 2 | | | | | Natural resources Depletion of natural resources & prevention of natural resources. | | | | | | | | | | | | | | | | | | |
| 3 | | | | | Biodiversity Protection, sharing of the biodiversity. | | | | | | | | | | | | | | | | | | |
| 4 | | | | | Environmental pollution Understanding of water, soil, noise, air pollutions and their control measurements | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | | **Year &Semester** | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits:2** | |
| **I Year II Sem** | | | **Computational Mathematics** | | | | | | **A9004** | | | | | **L/T/P :2/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | The students can learn about the algebraic and transcendental equation and they find the roots of the equation by iterative methods. | | | | | | | | | | | | | | | | | | |
| 2 | | | | | The students can interpitate the large data of interpolation through formulae of interpolation | | | | | | | | | | | | | | | | | | |
| 3 | | | | | Students learn how to fit the curve by using least squares method. | | | | | | | | | | | | | | | | | | |
| 4 | | | | | By studying Trapezodial rule and simpson’s rule to improve the differentiation and integration techniques | | | | | | | | | | | | | | | | | | |
| 5 | | | | | By studying the Runge-kutta methods student can able to bring out approximate solutions of first order ordinary differential equations and can be extended to higher order. | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | | **Year &Semester** | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year II Sem** | | | **Electrical Circuits - I** | | | | **A9201** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | After going through this course the student will able to basics of circuit concepts, electrical parameters, single phase AC circuits, magnetic circuits, resonance, and network theorems with which he/she can able to apply the above conceptual things to real-world problems and applications | | | | | | | | | | | | | | | | | | |
| 2 | | | | | Analyze and solve electric & magnetic circuits, Analyze circuit’s response to sinusoidal execution. Find the applications of resonance, Able to apply theorems to solve complicated real time applications. | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | | **Year &Semester** | | | | **Subject Name** | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits:4** | |
| **I Year II Sem** | | | | **Electronic Devices and Circuits** | | | | | **A9401** | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understand and Analyse the different types of diodes, operation and its characteristics | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Design and analyse the DC bias circuitry of BJT and FET | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Design biasing circuits using diodes and transistors. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | To analyze and design diode application circuits, amplifier circuits and | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **I Year II Sem** | | | | | | | **Problem solving and Computer Programming** | | | | **A9501** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understanding how problems are posed and how they can be analyzed for obtaining solutions. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understanding the fundamentals of C programming. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Learning of sequencing, branching, looping and decision making statements to solve scientific and engineering problems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Implementing different operations on arrays and creating and using of functions to solve problems. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Ability to design and implement different types of file structures using standard methodology. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | **Credits: 2** | | |
| **I Year II Sem** | | | | | | | **Electronic Devices and Circuits Lab** | | | | **A9403** | | | | | | | **L/T/P :0/0 /3** | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | To understand the use of RPS & CRO & different meters. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Explore the operation of different electronic components. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Able to understand working principle of electronic circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Able to rig up and test small electronic circuits. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **I Year II Sem** | | | | | | | **Problem solving and Computer Programming Lab** | | | | **A9502** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understanding how problems are posed and how they can be analyzed for obtaining solutions. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understanding the fundamentals of C programming. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Learning of sequencing, branching, looping and decision making statements to solve scientific and engineering problems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Implementing different operations on arrays and creating and using of functions to solve problems. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Ability to design and implement different types of file structures using standard methodology. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year I Sem** | | | | | **Mathematics-III** | | | | | | **A9003** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | To transform the trigonometric functions into the algebraic functions. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | By studying complex variable the students identifying ordinary point, singular point and regular point for the given ordinary differential equations. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | By using the Z-transforms students find the particular solution of the differential equation without finding the general solution and students are able to solve the applications of differential equations with boundary and initial conditions. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **II Year I Sem** | | | | | | | **Electromagnetic Fields** | | | | **A9205** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | The relation between the electric field and the magnetic field, about the various laws governing the concepts of these fields. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The behavior of conductors and dielectrics, their boundary conditions, Maxwell’s equations with respect to electrostatics and magnetostatics. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The concepts related to time varying fields, about scalar and vector magnetic potential, self and mutual inductance | | | | | | | | | | | | | | | | | | | | | | |
| 4 | The phenomena of energy stored and energy density in electrostatics and magnetostatics, the concepts of conduction, convection and displacement current density, their equations. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **II Year I Sem** | | | | | | | **Electrical Circuits –II** | | | | **A9206** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | The student gets a thorough knowledge on network topology three-phase systems of electrical circuits, transient analysis of AC and DC networks, Laplace transforms, different types of network functions, two functions, two –port network parameters | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Operation and design of various filter circuits, Fourier transforms and analysis of AC circuit through Fourier, | | | | | | | | | | | | | | | | | | | | | | |
| 3 | apply the above conceptual things to real-world electrical and electronics problems and applications | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **II Year I Sem** | | | | | | | **Electrical Machines-I** | | | | **A9207** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Principle of Energy Conversions. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Construction and Operation of Generators. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Characteristics of Different Generators and Remedies to overcome the Problems of failure of Generation | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Applications and Speed control of DC Motors. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Testing of DC Machines. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | **Subject Code** | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year I Sem** | | | | | | | **Data Structures Through C++** | | | | | **A9506** | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A strong foundation in core Computer Science and Engineering, both theoretical and applied concepts | | | | | | | | | | | | | | | | | | | | | | |
| 2 | An ability to apply knowledge of mathematics, science, and engineering to real-world problems | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Ability to model, understands, and develops complex software for System Software as well as Application Software. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | An ability to communicate effectively, both in writing and oral. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Recognition of the need for, and an ability to engage in life-long learning | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year II Sem** | | | | | | | **Power Systems-I** | | | | **A9211** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | After going through this course the student gets a thorough knowledge on the thermal, nuclear, gas and Hydal power plants operation, | | | | | | | | | | | | | | | | | | | | | | |
| 2 | AC and DC distribution operation and their calculation, AIR insulated and GAS insulated indoor/outdoor substations operation. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Voltage control and power factor improvement techniques, economics aspects of power generation and different types of tariff methods. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | With which he/she can be able to apply the above conceptual things to real-world electrical and electronics problems and applications. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **II Year II Sem** | | | | | | | **Electrical Machines –II** | | | | **A9212** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | After going through this course the student gets a thorough knowledge on, construction operation characteristics and testing of different types of transformers | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Construction operation characteristics testing (concept of circle diagram) and speed control method of poly-phase induction motor | | | | | | | | | | | | | | | | | | | | | | |
| 3 | With which he/she can be able to apply the above conceptual things to real-world electrical and electronics problems and applications | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **II Year II Sem** | | | | | | | **Electrical Measurements and Instrumentation** | | | | **A9213** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Different types of measuring instruments their construction operation and characteristics | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Resistance voltage current measurements through potentiometers, voltage current measurements through instruments transformers. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Power and energy measurements through watt and energy meters, resistance measurements through DC bridges, capacitance and inductance measurements through AC bridges, different types of transducers | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Measurement of frequency and phase through CRO, range extension of measuring instruments and different types of errors & their reduction methods in measuring instruments. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year II Sem** | | | | | | | **Thermal and Hydro Prime Movers** | | | | **A9359** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Describe the basic components of steam power plants and working principles of different types of steam turbines | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Explain the working principle of different types of gas turbines | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Identify the main components of diesel power plant and explain the working principle of diesel engines | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Discuss the working principle of different types of hydraulic turbines | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Illustrate the working principle of centrifugal and reciprocating pumps. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year II Sem** | | | | | | | **Switching Theory and Logic Design** | | | | **A9407** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Be able to manipulate numeric information in different forms, e.g. different bases, signed integers, various codes such as ASCII, gray, and BCD. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Be able to manipulate simple Boolean expressions using the theorems and postulates of Boolean algebra and to minimize combinational functions. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Be able to design and analyze small combinational circuits and to use standard combinational functions/ building blocks to build larger more complex circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Be able to design and analyze small sequential circuits and devices and to use standard sequential functions/building blocks to build larger more complex circuits | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year II Sem** | | | | | | | **Pulse Digital and Linear Integrated Circuits** | | | | **A9447** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A thorough understanding of operational amplifiers with linear integrated circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understanding of the different families of digital integrated circuits and their characteristics. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand the applications of diode as integrator, differentiator, clippers, clampler circuits. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **II Year II Sem** | | | | | | | **Electrical Machines-I Lab** | | | | **A9214** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Select range of apparatus based on the ratings of DC Machines. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Determine Characteristics of DC machines by conducting tests. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Evaluate the efficiency of the machine by analyzing test results. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Study speed control methods for dc machines | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Select range of apparatus based on the ratings of DC Machines | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **II Year II Sem** | | | | | | | **IC PDC Lab** | | | | **A9448** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understand the applications of diode as integrator, differentiator, clippers, clampler circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Student able to design circuits using operational amplifiers for various applications. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Student able to understand the VCO & PLL circuits. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | **Subject Name** | | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **II Year II Sem** | | | | | | **Gender Sensitization** | | | | | **A9019** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Students will have developed a better understanding of important issues related to gender in contemporary India. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Students will attain a finer grasp of how gender discrimination works in our society and how to counter it. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Students will acquire insight into the gendered division of labor and its relation to politics and economics | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Men and women students and professionals will be better equipped to work and live together as equals | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | | **Credits: 4** |
| **III Year I Sem** | | | | | | | **Power Systems—II** | | | | **A9215** | | | | | | | **L/T/P :4/0 /0** | | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | On calculation of Transmission line parameters, analysis of short, medium, long length lines and the factors affecting the performance of Transmission lines, transients in Transmission lines. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Operation of different types of overhead line insulators, sag and tension calculations of Transmission lines and brief study of underground cables for power Transmission and Distribution | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Able to apply the above conceptual to real-world problems and applications | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year I Sem** | | | | | | | **Control Systems** | | | | **A9216** | | | | | | | **L/T/P :4/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Open loop and closed loop systems, concept of feedback in control systems | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Mathematical modeling of systems | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Transfer functions of servomotors and concepts of synchros. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Block diagram representation of control system and signal flow graphs | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Time response analysis of different ordered systems through their characteristic equation and time-domain specifications | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | | **Credits: 4** |
| **III Year I Sem** | | | | | | | **Power Electronics** | | | | **A9217** | | | | | | | **L/T/P :4/0/0** | | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | After going through this course the student gets a thorough knowledge on construction operation V-I characteristics commutation firing and protection of various power semiconductor devices. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Focused analysis of thyristor devices nature of the R, R-L, and R-L-E Loads for different power inputs. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | AC-DC power conversion through single phase and three phase controlled rectifiers | | | | | | | | | | | | | | | | | | | | | | |
| 4 | DC-DC power conversion through step and step down coppers | | | | | | | | | | | | | | | | | | | | | | |
| 5 | AC-AC power conversion through AC Voltage controllers, frequency conversion through Cyclo converters. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year I Sem** | | | | | | | **Renewable Energy Sources** | | | | | | | | **A9218** | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Apply the technology to capture the energy from the renewable sources like sun, wind, ocean, biomass, geothermal. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | use different renewable energy sources to produce electrical power | | | | | | | | | | | | | | | | | | | | | | |
| 3 | minimize the use of conventional energy sources to produce electrical energy | | | | | | | | | | | | | | | | | | | | | | |
| 4 | identify the fact that the conventional energy resources are depleted | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year I Sem** | | | | | | | **Reliability Engineering** | | | | **A9219** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Model various systems applying reliability networks | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Evaluate the reliability of simple and complex systems | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Estimate the limiting state probabilities of repairable systems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Apply various mathematical models for evaluating reliability of irrepairable systems | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year I Sem** | | | | | | | **Electrical Engineering Materials** | | | | **A9220** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Classify various Electrical & Electronics Engineering Materials | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Applications of those Materials in Designing Various Electrical & Electronics Engineering Devices | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year I Sem** | | | | | | | **Electrical Machines –III** | | | | **A9221** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | After going through this course the student gets a thorough knowledge on, construction operation characteristics regulation parallel-operation power circle starting & speed control methods of synchronous machines. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Construction operation characteristics of single-phase motor and special machines, with which he/she can be able to apply the above conceptual things to real-world electrical and electronics problems and applications. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year I Sem** | | | | | | | **Electrical Measurements Lab** | | | | | | **A9222** | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Compare performance of MC , MI and Dynamometer types of measurements, Energy meter | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Determine the circuit parameters using AC and Dc bridges. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Compute the errors CT’s and PT’s. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Select transducers for the measurement of displacement and strain. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Understand the performance of industrial instruments | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year I Sem** | | | | | | | **Electrical Machines -II lab** | | | | **A9223** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Select range of apparatus based on the ratings. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Draw the Equivalent circuits and analyze various AC machines | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Determine performance and Characteristics of AC machinery | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Evaluate the efficiency of the machine by analyzing test results. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year I Sem** | | | | | | | **Basic Simulation Lab** | | | | **A9224** | | | | | | | **L/T/P :0/0 /3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Get the simulation knowledge on network analysis. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Generate various Periodic Signals | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analyze time response of LTI Systems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Know the applications of Fourier Transforms and Laplace Transforms | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year II Sem** | | | | | | | **Power Semiconductor Drives** | | | | **A9225** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Students will get technical knowledge of various control techniques involved in machines | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Ability to work in Industries related to drives. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Ability to apply technical knowledge in Electric Traction and application involved in motion control. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year II Sem** | | | | | | | **Power System Operation and Control** | | | | **A9226** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Select range of apparatus based on the ratings. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Draw the Equivalent circuits and analyze various AC machines | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Determine performance and Characteristics of AC machinery | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Evaluate the efficiency of the machine by analyzing test results | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year II Sem** | | | | | | | **Managerial Economics & Financial Analysis** | | | | **A9621** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | To study fundamental concepts in managerial economics and financial analysis including certain basic issues governing the business operations. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | To learn the concepts of demand, elasticity of demand and demand forecasting and methods of demand forecasting | | | | | | | | | | | | | | | | | | | | | | |
| 3 | To learn various issues involved in production decision analysis. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | To gain the knowledge of Break – Even Analysis and its importance in managerial decision making. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | To learn different types of market environment under various types of competition. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year II Sem** | | | | | | | **Principles of Communication Systems** | | | | **A9455** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Identify various elements, processes, and parameters in telecommunications systems, and describe their functions, effects, and interrelationship | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Design procedure of AM transmission and reception, analyze, measure and evaluate the performance of a telecommunication systems and gains given criteria. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand basic components of digital communication systems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Design optimum receivers for digital modulation techniques | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Know about deferent error detecting and error correcting codes like block codes, cyclic codes and convolution codes. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year II Sem** | | | | | | | **Core JAVA** | | | | **A9512** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A strong foundation in core Computer science and engineering, both theoretical and applied concepts | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Ability to model, understand and develop complex software for System Software as well as Application Software. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | An ability to function effectively within team. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | The board education necessary to understand the impact of computer science and engineering solutions in the scientific, societal and human context. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Recognition of the need for, an ability to engage in life-long learning. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year II Sem** | | | | | | | **High Voltage Engineering** | | | | **A9227** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Able to learn high voltage technology and applications in transformers, rotating machines, circuit breakers and cable power capacitors | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Acquire the knowledge on breakdown in solid, Liquid and gascons dielectrics. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Able to get the knowledge on generation of high voltage and current and able to measure them | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Able to nondestructive testing of material and electrical apparatus. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Get the knowledge on over voltage phenomenon and insulation co-ordination. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **III Year II Sem** | | | | | | | **FACTS** | | | | **A9228** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understand the nature, scope and importance of Managerial Economics. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Know what is demand, analyze demand and how elasticity of demand is used for pricing decisions and to evaluate methods for forecasting demand | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Know how production function is carried out to achieve least cost combination of Inputs and how to analyze cost. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Understand the characteristics of different kinds of markets and outline different form of business organization and analyze how capital budgeting techniques are used for investment decisions. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Know how to prepare final accounts and how to interpret them, analyze and interpret financial statements using ratio analysis. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year II Sem** | | | | | | | **Utilization of Electrical Energy** | | | | | | **A9230** | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Implementation of knowledge of drives to real world problems | | | | | | | | | | | | | | | | | | | | | | |
| 2 | An ability to function effectively in industry related to drives. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Ability to apply the technical knowledge in electric traction and application involved in motion control. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Ability to work in industry related to lightening. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year II Sem** | | | | | | | **HVDC Transmission** | | | | **A9231** | | | | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understand the complete operation of HVDC Converter stations. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understand the power flow control on HVDC Transmission system. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand the Operation of the controller for HVDC in worst and normal operations. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Design the Various filters. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | **Subject Code** | | | | | | **No. of Hours** | | | **Credits: 4** | |
| **III Year II Sem** | | | | | | | **VLSI Technology & Design** | | | | | | | **A9464** | | | | **L/T/P :4/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Acquire qualitative knowledge about the fabrication process of integrated circuit using MOS transistors | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Choose an appropriate invert depending on specifications required for a circuit | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Draw the layout of any logic circuit which helps to understand and estimate parasitic of any logic circuit | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Design different types of logic gates using CMOS inverter and analyze their transfer characteristics | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Design simple circuit using PLA, PAL, FPGA and CPLD. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year II Sem** | | | | | | | **Advanced English Language and Communication Skills Lab** | | | | | | **A9021** | | | | | **L/T/P :0 /0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Developing sound vocabulary and its proper use contextually. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Inculcating flair for Writing and felicity in written expression. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Enhancing job prospects. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Acquiring effective speaking abilities | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year II Sem** | | | | | | | **Control Systems Lab** | | | | **A9232** | | | | | | | **L/T/P :0 /0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Analyze the time & Frequency response of control systems | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Analyze performance of feedback control systems. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analyze the response of PID controllers. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Performance of PLC’s and its applications. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Performance of AC & DC servo motors | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **III Year II Sem** | | | | | | | **Power Electronics and Drives Lab** | | | | **A9233** | | | | | | | **L/T/P :0/0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Study of Characteristics of various Power Semiconductor devices | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Design Gate firing and Commutation Circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand the behavior of various motors with the power electronic converters. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Understand types of Power Electronic converters and identify their applications. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 0** | |
| **III Year II Sem** | | | | | | | **Logical Reasoning and Quantitative Aptitude** | | | | **A9018** | | | | | | | **L/T/P :2/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | To improve their logical thinking in terms of general and mathematical concepts. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The main outcome is to improve students to compete in academic as well as competitive levels through which students are able to solve the real world problems. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Microprocessors and Micro Controllers Architecture & Programming** | | | | | | **A9465** | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | The Student Will Learn the Internal Organization of Popular 8086/8051 Microprocessors/Microcontrollers | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The Student Will Learn Hardware And Software Interaction And Integration. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The Students Will Learn The Design Of Microprocessors Microcontrollers – Based Systems. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 4** | |
| **IV Year I Sem** | | | | | | | **Switch Gear and Protection** | | | | | | **A9234** | | | | | **L/T/P :4/0/0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Students are will be able to analyse the in depth of are physics material and their nature and their correction with power systems | | | | | | | | | | | | | | | | | | | | | | |
| 2 | They will be able to understand the phenomenon beyond the making of switch gear and protection assesses the curve and effect relationship in making belay & circuit breakers. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Classification of various protection schemes and their corresponding protection equipment will be analysed | | | | | | | | | | | | | | | | | | | | | | |
| 4 | they will be able to assess the rating, type, scheme, apparatus for a specific problem with relevant switch gear and protection analysis | | | | | | | | | | | | | | | | | | | | | | |
| 5 | They will have and overall knowledge of relay circuits between and may other protection equipment their range and application in field of power systems | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Database Management System** | | | | | | **A9511** | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A strong foundation in core Computer Science and Engineering, both theoretical and applied concepts. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | An ability to apply knowledge of mathematics, science, and engineering to real-world problems. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Ability to model, understand, and develop complex software for system software as well as application software. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | An ability to communicate effectively, both in writing and oral. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | The broad education necessary to understand the impact of computer science and engineering solutions in the scientific, societal and human contexts. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Advanced JAVA** | | | | **A9571** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A strong foundation in core Computer science and engineering, both theoretical and applied concepts | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Ability to model, understand and develop complex software for System Software as well as Application Software | | | | | | | | | | | | | | | | | | | | | | |
| 3 | An ability to function effectively within team | | | | | | | | | | | | | | | | | | | | | | |
| 4 | An ability to communicate effectively, both in writing and oral. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | The board education necessary to understand the impact of computer science and engineering solutions in the scientific, societal and human context. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Management Science** | | | | **A9622** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Plan an organizational structure for a given context in the organization carry out production operations through Work study. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Carry out production operations through Work study. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand the markets, customers and competition better and price the given products appropriately. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Ensure quality for a given product or service. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Plan and control the HR function better | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | | | **Subject Code** | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Computer Methods in Power Systems** | | | | | | **A9235** | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Analyze fault using Z-bus. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Develop computer programs for different load flow techniques. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analyze security of the power system. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Perform stability analysis of power system. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Linear System Analysis** | | | | **A9236** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Designing techniques of various Circuits with respect to Transfer Function. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The way of thinking and implementing the hardware circuits. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | The methods to improve the efficiency and bandwidth | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Digital Signal Processing** | | | | **A9423** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Perform the frequency and Z-transform analysis on signals and systems. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understand the inter relationship between DFT and various transforms. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Design a digital filter for a given specification. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Understand the fast computation of DFT and appreciate the FFT processing. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Understand the tradeoffs between normal and multi rate DSP techniques and finite length word effects. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Electrical Distribution Systems** | | | | **A9237** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | The student will be able to calculate the distribution voltage drop calculations | | | | | | | | | | | | | | | | | | | | | | |
| 2 | The student can design the required capacitor to compensate the losses in distribution system | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Able to design required capacitor for power factor correction and improvement | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Study the equipment required for voltage control and line drop compensation | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Neural Networks and Fuzzy Systems** | | | | **A9238** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | To expose the students to the concepts of feed forward neural Networks | | | | | | | | | | | | | | | | | | | | | | |
| 2 | To provide adequate knowledge about feedback networks. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | To teach about the concept of fuzziness involved in various systems. To provide adequate knowledge about fuzzy set theory. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | To provide comprehensive knowledge of fuzzy logic control and adaptive fuzzy logic and to design the fuzzy control using genetic algorithm | | | | | | | | | | | | | | | | | | | | | | |
| 5 | To provide adequate knowledge of application of fuzzy logic control to real time systems in engineering. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Digital Control Systems** | | | | **A9239** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | This course provides a foundation in discrete-time linear control system theory. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Analyze digital control systems using transform techniques (frequency response) and state-space methods (pole-placement). | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analyzing and understanding the challenges to interface digital computing devices with the Analog dynamics of most real-world systems. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Embedded Systems** | | | | **A9430** | | | | | | | **L/T/P :3/1 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Understand and design embedded systems. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Learn basic of OS and RTOS | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Understand types of memory and interacting to external world. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Understand embedded firmware design approaches | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **IV Year I Sem** | | | | | | | **Power Systems Lab** | | | | **A9240** | | | | | | | **L/T/P :0 /0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Calculation of Transmission line parameters, efficiency and regulation. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Performance analysis of Over/Under Voltage Relay. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analysis and performance testing of Feeder Protection System | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Calculation of Sequence Reactances of 3-Φ Transformer. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Application and usage of IDMT Over Current Relay. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **IV Year I Sem** | | | | | | | **Microprocessors and Micro Controllers Lab** | | | | **A9428** | | | | | | | **L/T/P :0 /0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Demonstrate experimentally basic programming of Microprocessor. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Exhibit microprocessor interfacing with various peripherals for various applications. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Demonstrate experimentally basic programming of microcontroller. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Exhibit microprocessor interfacing with various peripherals for various applications. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year & Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 2** | |
| **IV Year I Sem** | | | | | | | **Simulation of Electrical Systems Lab** | | | | **A9241** | | | | | | | **L/T/P :0 /0/3** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Get the simulation knowledge | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Analyze the concepts based on simulated results in the domain of Electrical Engineering | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year & Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year I Sem** | | | | | | | **Mini Project** | | | | **A9242** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Students will be able to practice acquired knowledge within the chosen area of technology for project development | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Identify, discuss and justify the technical aspects of the chosen project with a comprehensive and systematic approach. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Reproduce, improve and refine technical aspects for engineering projects | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Work as an individual or in a team in development of technical projects &Communicate and report effectively project related activities and findings. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year & Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year IISem** | | | | | | | **Advanced Power Electronics** | | | | **A9243** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Distinguish between different types of Modern power semiconductor devices and their characteristics. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Analyze of Resonant Converters | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Analyze ZVs and ZCS techniques | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | | | | | **Electrical Machine Design** | | | | **A9244** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Design of various parts of dc machines and solve the problems. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Design concepts of transformers and know about how to design the parts. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Design concepts of induction machines and solve the problems | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Design concepts of synchronous machines and solve the problems | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | | | | | **Soft Computing** | | | | **A9545** | | | | | | | **L/T/P :3/0/0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A strong foundation in core computer science and engineering, both theoretical and applied concepts. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | An ability to apply knowledge of mathematics, science, and engineering to realworld problems. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Ability to model, understands, and develop complex software for system software as well as application software. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | The broad education necessary to understand the impact of computer science and engineering solutions in the scientific, societal and human contexts | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | | |
| **IV Year &II Sem** | | | | | | | **Power Quality** | | | **A9245** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Basic concepts of power quality issues. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Voltage and current during the fault period of a given power system. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Sags and phase angle jumps in different types of faults. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Various equipment behavior with voltage sags. | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Various interfacing devices between system and equipment to mitigate the sags and interruptions | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | | | |
| **IV Year &II Sem** | | | | | | | **Disaster Management** | | **A9624** | | | | | | | **L/T/P :3/0/0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Acquire the knowledge of disaster Management | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understand the vulnerability of ecosystem and infrastructure due to a disaster | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Acquire the knowledge of Disaster Management Phases | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Understand the hazard and vulnerability profile of India | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | | | | | **Cloud Computing** | | | | **A9542** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | An ability to apply knowledge of mathematics, science and engineering to real world problems | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Ability to model, understand and develop complex software for system software as well as application software. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | An ability to communicate effectively, both in writing and oral. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | The board education necessary to understand the impact of computer science and engineering solutions in the scientific, societal and human context | | | | | | | | | | | | | | | | | | | | | | |
| 5 | A recognition of the need for, an ability to engage in life-long learning | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | | | | | **Computer Organization** | | | | **A9564** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | Ability to model, understands, and develops complex software for system software as Well as application software | | | | | | | | | | | | | | | | | | |
| 2 | | | | | The broad education necessary to understand the impact of computer science and Engineering solutions in the scientific, societal and human contexts | | | | | | | | | | | | | | | | | | |
| 3 | | | | | Knowledge of contemporary issues | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | | | | **Year &Semester** | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | **Seminar** | | | | **A9246** | | | | | | | **L/T/P :3/0 /0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Identify and analyze the real time Electrical Engineering problems | | | | | | | | | | | | | | | | | | | | | |
| 2 | | Acquire awareness on latest technology and current trends in the field of Electrical Engineering. | | | | | | | | | | | | | | | | | | | | | |
| 3 | | Participate in discussions for enhancement of knowledge | | | | | | | | | | | | | | | | | | | | | |
| 4 | | Apply communication skills | | | | | | | | | | | | | | | | | | | | | |
| 5 | | Document and present technical reports following professional ethics. | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | | **Year &Semester** | | | | | | **Subject Name** | | | | | **Subject Code** | | | | | | **No. of Hours** | | | **Credits: 3** | |
| **IV Year &II Sem** | | | | | | **Comprehensive viva** | | | | | **A9247** | | | | | | **L/T/P :0 /0/0** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Demonstrate the application of the knowledge acquired in the eight semesters to solve the problems. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Understand the practical difficulties in applying the various forms of solutions to find the feasible solution. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Solve the real life problems and assess the implications of various forms of solutions. | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Make effective presentation of different topics learnt before the expert problem. | | | | | | | | | | | | | | | | | | | | | | |
| **Course Outcome** | **Year &Semester** | | | | | | | **Subject Name** | | | | **Subject Code** | | | | | | | **No. of Hours** | | | **Credits: 12** | |
| **IV Year &II Sem** | | | | | | | **Major Project** | | | | **A9248** | | | | | | | **L/T/P :0 /0/15** | | |
| After learning the contents of this subject, the student must be able to | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Identify the problem by applying acquired knowledge. | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Ability to plan and implement an investigative or developmental project. | | | | | | | | | | | | | | | | | | | | | | |
| 3 | In-depth skill to use some laboratory, modern tools and techniques | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Ability to communicate results, concepts, analyses and ideas in written and oral form. | | | | | | | | | | | | | | | | | | | | | | |