



Shri Balasaheb Mane Shikshan Prasarak Mandal's

# ASHOKRAO MANE GROUP OF INSTITUTIONS

NH – 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: [hodele@amgoi.edu.in](mailto:hodele@amgoi.edu.in), Website: [www.amgoi.org](http://www.amgoi.org)

**NBA accredited Programs\* | Accredited by NAAC with 'A' Grade (CGPA 3.08)**



## DEPARTMENT OF ELECTRICAL ENGINEERING

### Course Outcome

**A.Y.2018-19**

### **SY B.Tech. (Odd Semester)**

Sr.No.	Name of Subject	Course Outcome
1	Network Analysis & Synthesis	To review basic components of electric network. To design and develop network equations and their solutions. To apply Laplace theorem for electric network analyses. To analyze AC circuit.
2	Fluid Mechanics & Thermal Engg.	To introduce properties of fluid and hydraulic measurement. To understand dynamics of fluid flow. To understand basic concepts of IC engines. To understand concept of refrigeration and air conditioning.
3	Measurement & Instrumentation	To understand philosophy of measurement. To understand different methods analog and digital measurement. To study principle of construction and operation of different transducer and dismay methods.
4	Basic Human Rights	To study concept of time value of money. To study about demand in detail. To understand Meaning of Production and factors of production. To understand dif. Concept about market.
5	Engg. Economics	To study concept of time value of money. To study about demand in detail. To understand Meaning of Production and factors of production. To understand dif. Concept about market.
6	Electrical Engg. Materials	To study about crystal structure. To understand magnetic material structure. To study about conducting and superconducting materials. To study dielectric and nano materials.
7	Network Analysis & Synthesis Lab	Verifies principles of network.
8	Electrical Workshop /Mini Project	Build and verifies basic scientific principles.



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## DEPARTMENT OF ELECTRICAL ENGINEERING

### SY B.Tech. (Even Semester)

Sr.No.	Name of Subject	Course Outcome
1	Electrical Machines-I	To study diff. types, construction and operating principle of diff. types of electrical machines.
2	Power System -I	To Understand basic operation of power system, power system components and their characteristics.
3	Electrical Installation And Estimation	To prepare estimates and costing of electrical installations of power system. To understand procedures of contracting and purchase.
4	Numerical Methods And Programming	To study and understand MATLAB programming. To review mathematical concepts. To develop computer program for linear and nonlinear equations.
5	Product Design Engineering	Create simple mechanical or other designs. Create design documents for knowledge sharing. Manage own work to meet design requirements. Work effectively with colleagues.
6	Analog And Digital Electronics	To review basic number system. To understand design and characteristics of digital logic gates. To study different techniques in use of digital circuits. To design digital systems.
7	Introduction To Non-Conventional Energy Sources	To review energy scenario. To understand basic concepts, construction and operational features of different non-conventional sources.



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## DEPARTMENT OF ELECTRICAL ENGINEERING

### TY B.Tech. (Odd Semester)

Sr.No.	Name of Subject	Course Outcome
1	Electrical Machines-II	To study different methods of speed control of AC and DC motor. To study importance and procedure of different performance test on AC and DC motor. To determine different operating characteristics of AC and DC machines.
2	Power System -II	To study different parameters of power system operation and control. To study load flow and Diff. methods of reactive power control. To understand diff. methods of fault analysis and stability study.
3	Microprocessor And Micro Controller	To know the architecture of 8085 and 8051. To understand interfacing and interrupt features of 8085 and 8051. To develop program for basic applications.
4	Value Education, Human Rights And Legislative Procedures	To understand value of education and self-development. To develop good values and character. To know Human right and legislative procedure.
5	Advances In Renewable Energy Systems	To know the principle of energy conversion technique from biomass, geothermal and hybrid energy systems. To understand effects of air pollution and ecosystems.
6	Power Plant Engineering	To review basic components of power system, energy sources. To understand principle of construction and operation of different conventional power plants.

\*Civil, Mechanical & Electrical Engineering



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## DEPARTMENT OF ELECTRICAL ENGINEERING

### TY B.Tech. (Even Semester)

Sr.No.	Name of Subject	Course Outcome
1	Control System	To understand the behavior of nonlinear control system. To design and analyze PID controller. To understand and analyze state variable technique. To design and analyze suitable control system for engineering application.
2	Principles Of Electrical Machine Design	To understand principles of electric machine design. To design different components of electric machine. To design Transformer. To understand CAD and use it for transformer design.
3	Power Electronics	To review principle of construction, operation and characteristics of basic semiconductor devices. To understand and analyze performance of controlled and uncontrolled converters. To understand and analyze performance of DC to DC converters. Dc to AC converters. To understand and analyze performance of AC voltage controllers.
4	Industrial Automation And Control	To understand construction and working principle of different industrial measurement systems. To understand new trends in industrial process control.
5	Switch Gear And Protection	To understand principles of protective relaying. To understand principle of construction, operation and selection of different type of circuit breaker used in power system. To understand different protection schemes used in power system operation.
6	Project Management	To understand concepts of project management. To develop a project plan. To understand the project implementation strategy. To analyze post project affects.

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## DEPARTMENT OF ELECTRICAL ENGINEERING

### Final Year B.Tech. (Odd Semester)

Sr.No.	Name of Subject	Course Outcome
1	Controlled Drives	To understand concept of electric drive and their control. To analyze different control techniques on control of industrial drives. To select/ recommend suitable drive for particular application for industry.
2	Power System Modeling And Analysis	To obtain mathematical models of power system components. To conduct power flow, fault and stability analysis using models. To analyze the power system dynamic performance. To understand the effect of excitation control.
3	Entrepreneurship Development	To select right entrepreneurship filed. To write feasible report. To understand organization setups and behaviors. To understand different financial sources for entrepreneurship.
4	HVDC Transmission And Facts	To understand importance, configuration and types of HVDC transmission. To analyst the operation of HVDC converter, system control and protection. To understand the concept of FACTS, their role, type and functionality. To analyze the operation of static series and shunt compensator.
5	Controlled Drives Lab	Understand characteristics of power electronic switches. To understand application of different switches as circuit component. To use the power electronic circuitry for different applications.
6	Power system modeling and Analysis Lab	Understand various power system components and their performance



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## DEPARTMENT OF ELECTRICAL ENGINEERING

### Final Year B.Tech. (Even Semester)

Sr.No.	Name of Subject	Course Outcome
1	Electrical Utilization	To review basics of electric motor characteristics and components. To review use of electrical energy for different applications like electrolytic process, heating, welding, lighting and traction. To analyze the suitable study of characteristics of traction motors.
2	High Voltage Engineering	To study conduction and breakdown in gases and liquids. To study the lightening phenomenon. To understand the methods and measurement of high voltage generation and measurement. To know different testing and standards in HV.
3	Advance Control Systems	To analyze continuous and discontinuous systems. To study different stability theorem for nonlinear systems. To design and analyze a optimal and adaptive control system.
4	Energy Audit And Conservation	To revive energy scenario, energy sources, energy utilization and energy efficiency. To understand different terms and types of energy audit. To identify energy conservation measures in different sector To prepare energy audit reports.
5	Electrical Utilization Lab	To study and understand different control devices and different process used in industry.
6	High Voltage Engineering Lab	Get acquainted with high voltages tests and measurements.

(Prof.S.H.Shete)

**HOD**