



SSGMCE SHEGAON
DEPARTMENT OF ELECTRICAL ENGINEERING

COURSE OUTCOMES OF ALL COURSES OF THIRD SEMESTER
BE ELECTRICAL (ELECTRONICS & POWER)

3EP01 ENGINEERING MATHEMATICS – III

After completing this course, student will be able to

1. solve the Linear Differential equations with constant coefficients and apply this knowledge to Electrical circuits
2. analyse Laplace Transform of various types of functions and able to find Laplace Transform of Periodic, Impulse & Unit step function. Use LT to solve LDE
3. apply the knowledge of Laplace Transform to find solution of Linear Differential equations with constant coefficients.
4. find Fourier Transform of various types of functions and apply this knowledge to find Fourier Transform of functions, in their core subjects
5. find Z Transform of various types of functions and apply this knowledge to problems in Electrical Engineering.
6. Differentiate and integrate the vector point functions and apply this knowledge to problems in Electrical Engineering, especially in Electric and Magnetic fields.

3EP02 ELECTRICAL CIRCUIT ANALYSIS

After completing this course, student will be able to

1. Analyze electric and magnetic circuits using basic circuit laws
2. Analyze the circuit using Network simplification theorems
3. Solve circuit problems using concepts of electric network topology
4. Evaluate transient response of different circuits using Laplace transform
5. Evaluate two-port network parameters and network functions

3EP03 ELECTRICAL MACHINE – I

After completing this course, student will be able to

1. Explain the Construction, working, operation of DC Machines.
2. Determine Performance Parameter of DC machine by conducting various tests on DC Machine
3. Illustrate characteristics, starting, braking of DC Motors
4. Demonstrate the construction, working, types of connection and Application of Transformers.
5. Determine Performance Parameter of Transformer by conducting various tests on Transformers

3EP04 ENERGY RESOURCES AND GENERATION

After completing this course, student will be able to

1. Explain the operation of Thermal, Hydro, Nuclear and Diesel power plants
2. Summarize solar energy conversion, solar radiation measuring instruments, wind energy conversion and their applications.
3. Outline the principle and operation of fuel cells, ocean & tidal energy conversion, and other nonconventional energy resources.
4. Determine the various factors and curves related to electrical load & generating plant.

3EP05 ELECTRONIC DEVICES & CIRCUITS

After completing this course, student will be able to

1. Demonstrate the knowledge of semiconductor physics and PN Junction Diode
2. Analyze the rectifier and regulator circuits.
3. Analyze the operational parameters of BJT
4. Analyze various multistage amplifier circuits
5. Demonstrate the knowledge of JFET, MOSFET, UJT and their operational parameters