SSGMCE SHEGAON
DEPARTMENT OF ELECTRICAL ENGINEERING

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

4EP01 ELECTROMAGNETIC FIELD

After completing this course, student will be able to

1. Demonstrate the understanding of basic mathematical concepts related to electromagnetic vector fields
2. Apply the principles of electrostatics to the solutions of problems relating to electric field
3. Apply the principles of magneto statics to the solutions of problems relating to magnetic field
4. Apply Maxwell's equation in different forms (differential and integral) to diverse engineering problems.

4EP02 ELECTRICAL MEASUREMENT & INSTRUMENTATION

After completing this course, student will be able to

1. Classify the various measuring instruments like PMMC, MI, Electrodynamometer, and Induction type instruments for measurement of current, voltage, power, and energy.
2. Demonstrate the construction & working of Instrument Transformers and special purpose meters.
3. Analyze various methods for measurement of resistance, inductance, and capacitance using AC/DC bridges.
4. Explain the working of various Digital measuring instruments.
5. Explain the generalized Instrumentation system & working of different transducers.

4EP03 CONTROL SYSTEM

After completing this course, student will be able to

1. Demonstrate the fundamental concepts of automatic Control and mathematical modelling of the System
2. Determine the transfer function of control system components
3. Analyze the time response of various systems and performance of controllers
4. Evaluate the stability of linear systems using various methods

4EP04 NUMERICAL METHODS & OPTIMIZATION TECHNIQUES

After completing this course, student will be able to

1. Determine solutions for linear and simultaneous equations using numerical methods.
2. Apply various curve fitting techniques.
3. Make use of various numerical methods for solving Numerical differentiation, integration, and Differential Equations.
4. Determine the optimum scheduling by using CPM and PERT.

4EP05 ANALOG & DIGITAL CIRCUITS

After completing this course, student will be able to

1. Explain the principles of operational amplifiers, parameters of op-amp
2. Illustrate the linear and nonlinear applications of op-amp
3. Demonstrate the knowledge of Voltage regulator and Timer ICs
4. Describe the working of Logic families and their applications.
5. Demonstrate the knowledge of combinational and sequential circuits and its application