



SSGMCE SHEGAON
DEPARTMENT OF ELECTRICAL ENGINEERING

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

7EP01 POWER SYSTEM – II

After completing this course, student will be able to

1. Explain the basic Concept of Fault Analysis in Electrical systems.
2. Analyze the different types of symmetrical and Unsymmetrical Fault in Electric Power System
3. Explain the concept of Power System Stability and synchronous machine parameter determination.
4. Analyze the steady state stability of system.
5. Assess transient state stability of two-machine system

7EP02 DIGITAL SIGNAL PROCESSING

After completing this course, student will be able to

1. Analyze the discrete time signals in time domain
2. Analyze the discrete time systems using DTFT and DFT
3. Explain the concept of Bandpass sampling
4. Design the structures of different types of digital filters
5. Analyze the frequency response of various digital filters
6. Apply the knowledge of multi-rate signal processing

7EP03 ENTREPRENEURSHIP AND PROJECT MANAGEMENT

After completing this course, student will be able to

1. Understand the concept of entrepreneurship and its role in economic development.
2. Compare the various business model and select the most suitable.
3. Identify & formulate the project report and Source of finance for a project.
4. Estimate the cost, time & resources for the project work.

7EP04 POWER SYSTEM OPERATION & CONTROL (Professional Elective-III)

After completing this course, student will be able to

1. Apply the knowledge of preliminaries on power system operation and control.
2. Determine the optimal scheduling of generation for a two-plant system with and without losses for the economic operation of the power system.
3. Develop the mathematical model of the Automatic Voltage Regulator (AVR) loop and the Automatic Load-Frequency Control (ALFC) loop.
4. Build the block diagram of two area system.
5. Explain the role of the power system stabilizer in damping the steady-state oscillations set up in the power system

7EP04 WIND AND SOLAR SYSTEMS (Professional Elective-III)

After completing this course, student will be able to

1. Understand the energy scenario and the consequent growth of the power generation from renewable energy sources.
2. Understand the basic physics of wind and solar power generation.
3. Understand the power electronic interfaces for wind and solar generation.
4. Understand the issues related to the grid-integration of solar and wind energy systems.

7EP05 ARTIFICIAL INTELLIGENCE (Professional Elective-IV)

After completing this course, student will be able to

1. Build Artificial model of neuron and architectures of neural network
2. Make use of supervised /unsupervised learning methods for training of ANN
3. Apply fuzzy logic for solving engineering problems
4. Utilize genetic algorithm for optimization of engineering problem

7EP05 ELECTRICAL DRIVES & CONTROL (Professional Elective-IV)

After completing this course, student will be able to

1. Elaborate the Concept of electrical drives.
2. Demonstrate the knowledge of modern speed and torque control techniques of electrical drives.
3. Elaborate the scalar control strategies of AC drives.
4. Discuss the vector controlled strategies for AC motor drives
5. Explain direct torque & flux control techniques of Electrical drives.