

# SSGMCE SHEGAON DEPARTMENT OF ELECTRICAL ENGINEERING

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

#### **6EP01 POWER ELECTRONICS**

After completing this course, student will be able to

- 1. Explain the knowledge about fundamental concepts and techniques used in power electronics
- 2. Analyze various single phase and three phase power converter and Inverter circuits
- 3. Analyze the operation of DC/DC and AC/AC converter circuits
- 4. Implement industrial applications of power electronic circuits.

#### 6EP02 ELECTRICAL ENERGY DISTRIBUTION & UTILIZATION

After completing this course, student will be able to

- 1. Demonstrate the knowledge of distribution substation
- 2. Compare different power distribution systems
- 3. Describe elements of distribution Automation system
- 4. Select proper electrical drive for industrial applications
- 5. Explain the working of electric traction system
- 6. Design an illumination system for various locations

#### 6EP03 COMPUTER AIDED ELECTRICAL MACHINE DESIGN

After completing this course, student will be able to

- 1. Apply the suitable method for Computer aided machine design & select the proper material.
- 2. Design the single phase & three phase transformer.
- 3. Evaluate the performance of the transformer from its design data
- 4. Design the three phase Induction motor
- 5. Develop the computer program for design of transformer and three phase IM

#### **6EP04 ADVANCE CONTROL SYSTEM (Professional Elective – II)**

After completing this course, student will be able to

- 1. Design compensator using time and frequency domain specifications
- 2. Analyze the system using state space Model
- 3. Apply Z Transform to analyse Digital systems
- 4. Analyze the Nonlinear systems

### **6EP04 PROCESS CONTROL SYSTEMS (Professional Elective – II)**

After completing this course, student will be able to

- 1. Explain the various Electronic Instruments for measurement of electrical parameters.
- 2. Analyse the different signals
- 3. Demonstrate the signal counting, recording and working of digital readout devices.
- 4. Demonstrate the Various techniques of A/D and D/A conversions.
- 5. Apply various signal processing tools as per requirement
- 6. Develop ladder diagrams &programmes for PLC

## 6EP05 ENERGY AUDIT & MANAGEMENT (Open Elective - II)

After completing this course, student will be able to

- 1. Discuss energy scenario and it's management.
- 2. Conduct the energy audit of different systems.
- 3. Determine the economics of energy conservation
- 4. Discuss various energy Conservation methods & their case studies
- 5. Explain fundamentals of Harmonics.

#### **6EP05** ELECTRICAL ESTIMATING & COSTING (Open Elective – II)

After completing this course, student will be able to

- 1. Understand methods of installation and estimation of service connection
- 2. Decide type of wiring, its estimation and costing for residential building
- 3. Carry out electrification of commercial complex, factory unit installations
- 4. Design & estimate for feeders & distributors
- 5. Understand contract, tendering and work execution process.