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## **ELECTRICAL AND ELECTRONICS ENGINEERING**

### **II Year-I Sem**

#### **ELECTRICAL CIRCUIT ANALYSIS**

##### **( EE302PC)**

#### **Course Outcomes:**

At the end of this course, students will demonstrate the ability to

- 1) Apply network theorems for the analysis of electrical circuits.
- 2) Analyze two port circuit behavior
- 3) Obtain the transient and steady-state response of electrical circuits.
- 4) Analyze circuits in the sinusoidal steady-state (single-phase and three-phase).
- 5) Analyze two port circuit behavior.

#### **ENGINEERING MECHANICS**

##### **(EE301ES)**

#### **Course Outcomes:**

At the end of the course, students will be able to

- 1) Determine resultant of forces acting on a body and analyse equilibrium of a body subjected to a system of forces.
- 2) Solve problem of bodies subjected to friction.
- 3) Find the location of centroid and calculate moment of inertia of a given section.
- 4) Understand the kinetics and kinematics of a body undergoing rectilinear, curvilinear, rotatory motion and rigid body motion.
- 5) Solve problems using work energy equations for translation, fixed axis rotation and plane motion and solve problems of vibration.



## **ANALOG ELECTRONICS**

### **(EE303PC)**

#### **Course Outcomes:**

At the end of this course, students will demonstrate the ability to

- 1) Know the characteristics, utilization of various components.
- 2) Understand the biasing techniques
- 3) Design and analyze various rectifiers, small signal amplifier circuits.
- 4) Design sinusoidal and non-sinusoidal oscillators.
- 5) A thorough understanding, functioning of OP-AMP, design OP-AMP based circuits with linear integrated circuits.

## **ELECTRICAL MACHINES – I**

#### **Course Outcomes:**

At the end of this course, students will demonstrate the ability to

- 1) Identify different parts of a DC machine & understand its operation
- 2) Carry out different testing methods to predetermine the efficiency of DC machines
- 3) Understand different excitation and starting methods of DC machines
- 4) Control the voltage and speed of a DC machines
- 5) Analyze single phase and three phase transformers circuits.

## **ELECTROMAGNETIC FIELDS**

### **(EE305PC)**

#### **Course Outcomes:**

At the end of the course, students will demonstrate the ability

- 1) To understand the basic laws of electromagnetism.
- 2) To obtain the electric and magnetic fields for simple configurations under static conditions.
- 3) To analyze time varying electric and magnetic fields.
- 4) To understand Maxwell's equation in different forms and different media.
- 5) To understand the propagation of EM waves



## **ELECTRICAL CIRCUITS LAB**

**(EE308PC)**

### **Course Outcomes:**

After Completion of this lab the student is able to

- 1) Analyze complex DC and AC linear circuits
- 2) Apply concepts of electrical circuits across engineering
- 3) Evaluate response in a given network by using theorems

## **ANALOG ELECTRONICS LAB**

**(EE307PC0)**

### **Course Outcomes:**

At the end of this course, students will demonstrate the ability to

- 1) Know the characteristics, utilization of various components.
- 2) Understand the biasing techniques
- 3) Design and analyze various rectifiers, small signal amplifier circuits.
- 4) Design sinusoidal and non-sinusoidal oscillators.
- 5) A thorough understanding, functioning of OP-AMP, design OP-AMP based circuits with linear integrated circuits.

## **ELECTRICAL MACHINES LAB – I**

**(EE304PC)**

### **Course Outcomes:**

After completion of this lab the student is able to

- 1) Start and control the Different DC Machines.
- 2) Assess the performance of different machines using different testing methods
- 3) Identify different conditions required to be satisfied for self - excitation of DC Generators.
- 4) Separate iron losses of DC machines into different components



## **GENDER SENSITIZATION LAB**

**( \*MC409/\*MC309)**

### **Course Outcomes:**

- 1) Students will have developed a better understanding of important issues related to gender in contemporary India.
- 2) Students will be sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.
- 3) Students will attain a finer grasp of how gender discrimination works in our society and how to counter it.
- 4) Students will acquire insight into the gendered division of labour and its relation to politics and economics.
- 5) Men and women students and professionals will be better equipped to work and live together as equals.
- 6) Students will develop a sense of appreciation of women in all walks of life.
- 7) Through providing accounts of studies and movements as well as the new laws that provide
- 8) protection and relief to women, the textbook will empower students to understand and respond to gender violence.

**Principal**