

Name of the course Coordinators: Manjunatha Babu P & Ozwin Dominic Dsouza

Open Course Title: TRANSFORMERS AND ARMATURE WINDING DESIGN

Target Students from Branches: 30 To 40 (EEE)

Total duration of the course: 25 Hours.

No. of Lecture hours: 7 Hr.

No. of hands on / Practical: 18 Hr.

Abstract

The main objective is to know several design standards, material specification, properties of electrical material, insulation material, assumptions and constraints. A designer is generally confronted with a number of problems for which there may not be one solution, but many solutions. A design should ensure that the products perform in accordance with the requirements at higher efficiency, lower weight of material for the desired output, lower temperature rise and lower cost. Also they are to be reliable and durable. The design problems, that have been considered to solve, are of different nature from the design worked out in respect of any machine. However, these test problems provide adequate elementary skills in design, which is an indication that a student has a fair knowledge to deal with the entire design.

Open Course Details

After the successful completion of the course, students will be able to

CO1: Apply the knowledge of electrical machine design using a design tool (Auto-CAD).

CO2: Design Transformer windings.

CO3: Design armature winding for DC machines.

Note: The coordinators shall provide at least three course outcomes for the open course.

Schedule

Day 1:12/02/2019			
Time	Topics	Resource Person Details	CO-PO Mapping
9 AM To 12:30 PM	Introduction & Transformer Winding	Manjunatha Babu P	CO1-PO5
1:30 PM To 4 PM	Transformer Winding	Ozwin Dsouza	CO2-PO9,10
Day 2:13/02/2019			
Time	Topics	Resource Person Details	CO-PO Mapping
9 AM To 12:30 PM	Hands on Session :Transformer	Manjunatha Babu P &	CO2-PO3
1:30 PM To 4 PM	Winding	Ozwin Dsouza	CO2-PO3
Day 3:14/02/2019			
Time	Topics	Resource Person Details	CO-PO Mapping
9 AM To 12:30 PM	Visit to Vignesh Vidyuth Controls:	Prof. Murali Krishna	CO2,3-PO3
1:30 PM To 4 PM	Distribution Transformer Manufacturing Company.		
Day 4:15/02/2019			
Time	Topics	Resource Person Details	CO-PO Mapping
9 AM To 12:30 PM	Introduction & Armature Winding	Ozwin Dsouza	CO1-PO5
1:30 PM To 4 PM	Hands on Session : Armature Winding	Manjunatha Babu P	CO3-PO9,10
Day 4:16/02/2019			
Time	Topics	Resource Person Details	CO-PO Mapping
9 AM To 12:30 PM	Hands on Session : Armature Winding	Manjunatha Babu P & Ozwin Dsouza	CO3-PO9,10
1:30 PM To 4 PM	Hands on Session : Armature Winding followed by Assessment(Activity Based)+ Valedictory	Manjunatha Babu P & Ozwin Dsouza	CO2,3 –PO3,9,10

CO-PO Matrix

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1					3							
CO2			2						2	2		
CO3			2						2	2		

3- Strongly related

2-Moderately related

1- Lightly related