EE429-3: Utilization of Electrical Power

Course code and name	EE429-3: Utilization of Electrical Power
Credits units	3 Credit units
Contact hours	5 Contact hours: 2 lecture, 1 tutorial and 2 practical
Instructor name	
Textbook	N.V. Suryanarayana, Utilization of electric power, New Age International (P) Limited, Publishers. 2004
Other supplemental materials	
	Specific course information
a. Course description	This course aims to acquire the student with the essential knowledge to understand of the utilization of electrical power like illumination engineering, electroplating, heating and welding, electric devices and control, electric traction and finally the economic considerations. The course provides the students with the necessary practical and professional skills concerning the selection the appropriate lamps and designing the indoor and outdoor lighting schemes. In addition, evaluate the different parameters used to control the electric welding and heating, the different oven structures and the types of motors used in electrical devices.
b. Prerequisite	EE323-3
c. Required / Elective	Elective
	Course Learning Outcomes
<u>CLO of the Lecture Activities:</u> CLO1: Describe the principles of the electric heating, illumination an electric traction. CLO2: Recognize the different type of traction system and different types of lamps. CLO3: Solve engineering problems relating to electric heating and electric traction. CLO4: Solve engineering problems relating to illumination, Tariff and Economic consideration.	

CLO5: Design lighting scheme.

CLO of the Laboratory Activities:

CLO1: Verify theory and to improve knowledge learned in class.

CLO2: Formulate and solve problems related to theory.

CLO3: Design and safety conducts an experimental procedure.

CLO4: Independently perform accurate quantitative measurements, interpret experimental results, perform calculations on these results and draw a reasonable, accurate conclusion.

CLO5: Communicate critical analysis of scientific information through written reports.

CLO6: Be integrated inside a group of work and respect the team working.

Brief list of topics to be covered

- Electric Heating

- Electric traction

- Illumination

- Tariffs And Economic Considerations

- Cost and Power Factor Improvement

Mapping Course Learning Outcomes to Student Outcomes

	Lecture Activities						
	SO1	SO2	SO3	SO4	SO5	SO6	SO7
CLO1							
CLO2							
CLO3							
CLO4							
CLO5							
	Laboratory Activities						
	SO1	SO2	SO3	SO4	SO5	SO6	SO7
CLO1							

CLO2							
CLO3							
CLO4							
CLO5							
CLO6							