

Course Code	TKEE163213													
Course Name	Design of Industrial Power Systems													
Course Instructors	Sariyya;													
Course Type	Elective													
Course Classification	Engineering Topics													
Credit / Contact Hour per Week	2 / 100 minutes per Week													
Course Description	The course of Electrical Design of Industry discusses the things done in an electrical system design on the industry, both for Front End Engineering Design (FEED) and Detail Engineering Design (DED)													
Prerequisites Courses	-													
Covered Student Outcome	Engineering Design (c)													
Learning Outcome	<ol style="list-style-type: none"> 1. Students are able to identify and apply the design and standard of electrical system design in industry 2. Students are able to apply the engineering work, management and drawing in electrical system industry 3. Students are able to apply the power system analysis concept for industrial design 4. Students are able to estimate the engineering project : detail specification, selection, and cost. 													
Topic	<ol style="list-style-type: none"> 1. Engineering concept works 2. Power system studies in industrial design 3. Drawing and documentation in industrial electrical design 4. Engineering Development and Detail Specification, Selection and Purchase in industrial electrical design 													
Direct Assessment	<table border="1"> <thead> <tr> <th>Direct Assessment Plan</th> <th>Measured Learning Outcome</th> </tr> </thead> <tbody> <tr> <td>Assignment</td> <td>LO1,LO2,LO3,LO4</td> </tr> <tr> <td>Mid Term Exam</td> <td>LO1,LO2,LO3</td> </tr> <tr> <td>Final Term Exam</td> <td>LO3,LO4</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Direct Assessment Plan	Measured Learning Outcome	Assignment	LO1,LO2,LO3,LO4	Mid Term Exam	LO1,LO2,LO3	Final Term Exam	LO3,LO4				
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Assignment	LO1,LO2,LO3,LO4													
Mid Term Exam	LO1,LO2,LO3													
Final Term Exam	LO3,LO4													
Indirect Assessment	Questionnaire (EDOM)													
References	<ol style="list-style-type: none"> [1] Electrical Equipment and Installation in Hazardous Areas, Bottrill [2] ETAP Tutorial [3] Handbook for Process Plant Project Engineers, Watermeyer [4] Industrial Electric Network Design Guide Vol 1 & Vol 2, Schneider [5] Khan, S., 2008, Industrial Power System [6] IEEE Recommended Practice for Calculating short-Circuit Currents in Industrial and Commercial Power System [7] IEEE Recommended Practice for Electric Power Distribution for Industrial Plants [8] IEEE Recommended Practice for Grounding of Industrial and Commercial Power System [9] IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power System [10] IEEE Recommended Practice for Powering and Grounding Electronic Equipment [11] IEEE Recommended Practice for Industrial and Commercial Power System Analysis [12] Practical Grounding, Bonding, Shielding and Surge Protection, Vijayaraghavan 													

	[13] Standard Handbook of Plant Engineering, Rosaler
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