Republic of Iraq

Ministry of Higher Education

& Scientific Research



University: Diayla College: Engineering

Department: Electrical Power & Machines

Stage: Forth

Lecturer name: Ass. Lec. Qasim Al Azze

Qualification:

Place of work; College of Engineering, Department of Electrical Power and

Machines Engineering

Flow up of Implementation celli pass play

Course Instructor	Qasim Al Azze		
E-mail	Qasm_eng@yahoo.com		
Title	Electrical Machines and Drives		
Course Coordinator	3 hours per week		
Course Objective	Introduction to control and drives of Dc and Ac Machines, its application, Understanding Power Electronic as Drives, Introduction to Single Phase and Special Machines		
Course Description			
Textbook	Recommended Textbooks : > S.Dewan,G.Slemon & A.Straughen Power Semiconductor Drives John Wiley Pub. > A.Fitzgerald,C.Kingsley & A.Kusko Electric Machinery McGraw-Hill Pub. > ELECTRICAL TECHNOLOGY B.L. THERAJA A.K. THERAJA		
Course Assessments	First Semester	Second Semester	Final Exam
	As(20%)	As(20%)	As(60%)
General Notes			

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Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1	29/9/2016	The Basic Generalized Machine Theory		
2	6/10/2016	Generalized Machine Equation of Single coil, Double Coils, and Three Coils		
3	13/10/2016	Equivalent circuit, performance calculation.		
4	20/10/2016	Introduction to Machines Drive		Quiz
5	27/10/2016	Electrical Drive Mode, Four Quadrant Operation		
6	3/11/2016	. Torque-Speed Characteristic (Mechanical Characteristic) and Speed Variation Electrical Speed Control DC Motor		
7	10/11/2016	Electrical Speed Control of Shunt Separated Excited DC Motor Series DC Motor		
8	17/11/2016	Electrical Breaking of DC Motor Types, and Methods		First Exam
9	24/11/2016	Basics of Industrial Motor Control		
10	1/12/2016	AC Static Switch		Quiz

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11	8/12/2016	DC Static Switch			
12	15/12/2016	DC Drive, Machines Control			
13	22/12/2016	Traction Drive			
14	29/12/2016	AC Drive, Machines Control			
15	5 /1 /2017	Choice Of Electrical Drives	Quiz		
16	12/1/2017	status of DC & AC drives			
17	19/1/2017	V/f Control Speed			
18	26/1/2017	AC voltage controllers & soft start, variable frequency control from voltage and current sources	Second Exam		
19	2/2/2017	variable frequency control from voltage and current sources			
	Half Year Break				
21	23/2/2017	Introduction to single phase machine and special machine			
22	2/3/2017	Double Revolving Field Theory			
23	9/3/2017	Single-Phase Induction Motor			
24	16/3/2017	Single Phase Induction Motor Capacitor Type			
25	23/3/2017	AC Series Motors			
26	30/3/2017	Universal motor			
27	6/4/2017	Hysteresis Motor			
28	13 /4/2017	Stepper Motor			

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29	20/4/2017	Linear Motor	Quiz
30	27 /4/2017	Single Phase Synchronous Motors, and Applications	
31	4/5/2017	Repultion Motor.	
32	11/5/2017	Permanent Magnet Machines	
33	18/5/2017	Apply Basic Knowledge of Energy to Describe Renewable and Alternative Energy	
34	25/5/2017	Analyses the Characteristics of Energy Storage Devices	

INSTRUCTOR Signature:

Assist Lecturer Qasim AI Azze