

GOVERNMENT CO.ED POLYTECHNIC RAIPUR (C.G)												
DEPARTMENT OF ELECTRICAL ENGINEERING												
LESSON PLAN												
Session:												
Session start as per university calendar:												
Course Name: AC Machines												
Name of Subject Teacher:												
Lecturer plan T+P = 3												
Course code: 2024472(024)												
Discipline: EE, EEE		Semester: 4th			Class room Instruction Start Date:							
S.No.	Chapter No.	Topics	Sub Topic to be covered under this unit	Total hours	No. of periods planned	Actual No of periods taken	Date of Class Conduction	Use of AV resource s if any	Remarks if any			
1	1	Alternators	Types & Applications	17				NA				
			Construction – Salient and cylindrical rotor, equivalent circuit and phasor diagram									
			Voltage equation, Open circuit and short circuit characteristics									
			Synchronization and its condition, two bright and one dark lamp method									
			Cooling system of alternator, maintenance of given alternators									
2	2	Synchronous Motor	Working Principle, starting methods, Equivalent circuit and phasor diagram	15				NA				
			Effect of change in excitation and PF, V and Inverted V curves									
			Applications of synchronous motor, constant speed, condenser									
			Hunting and its prevention									
			Maintenance of synchronous motors									
3	3	Three Phase Induction Motors	Construction, types, SCIM, SRIM, working principle,Torque slip curve	18				NA				
			Torque equation, starting, running, and conditon for max torque									
			Starter and its types, DOL, Star-delta, auto transformer type									
			No load and blocked rotor test,losses and efficiency									
			Speed control of SCIM and SRIM									
			Maintenance of different types of induction motors									
			Single Phase Induction Motor		Construction working and types based on starting methods- split	13					NA	
					Double revolving field theory equivalent circuit							
					Speed /torque characteristics							
					Maintenance of different types of single phase motors							
5	5	Special Electrical Machines	Construction, working, speed/torque characteristics	12				NA				
			AC servo motor, linear induction motor									
			Reluctance motor, hysteresis motor, AC series, universal motor									
			75 Hours									