

COURSE TITLE : AC MACHINES LAB - II
COURSE CODE : 6039
COURSE CATEGORY : A
PERIODS/WEEK : 5
PERIODS/SEMESTER : 75
CREDITS : 3

Course Objectives:

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	1	To understand the characteristics of synchronous machine.
	2	Comprehend the performances of synchronous alternators.
	3	To understand synchronization of alternators.
	4	To analyze the characteristics of synchronous motor.
	5	To understand the starting methods of single phase induction motors

LIST OF EXPERIMENTS

1. To dismantle and assemble a single phase CSIR type induction motor and identify its parts.
2. To identify terminals and run a single phase motor in forward and reverse directions.
3. To run an alternator at rated speed and plot open circuit characteristics (OCC).
4. To run an alternator at different speeds with constant field current and measure the frequency and voltage in eh case.
5. To conduct direct load test on alternator and determine regulation at various power factor.
6. To pre-determine regulation of three phase alternator at various power factor in MMF method. Plot regulation curves in both cases.
7. To pre-determine regulation of three phase alternator at various power factor in EMF method. Plot regulation curves in both cases.
8. To pre-determine regulation of three phase alternator at various power factor in ZPF method.
9. To synchronize a three phase alternator with existing power supply in dark lamp, bright lamp, dark & bright lamp and synchroscope methods.
10. To plot 'V' and 'inverted V' curves of a synchronous motor at various load conditions.