

Maulana Abul Kalam Azad University of Technology, West Bengal

(Formerly West Bengal University of Technology)

Syllabus for B. Tech in Electrical Engineering

(Applicable from the academic session 2018-2019)

Name of the course	ELECTRIC MACHINE-I LABORATORY
Course Code:PC-EE491	Semester: 4 th
Duration: 6 months	Maximum marks:100
Teaching Scheme	Examination scheme:
Theory: 0 hr/week	Continuous Internal Assessment:40
Tutorial: 0 hr/week	External Assessment: 60
Practical: 2 hrs/week	
Credit Points:1	
	Laboratory Experiments:
1.	Determination of the characteristics of a separately excited DC generator.
2.	Determination of the characteristics of a DC motor
3.	Study of methods of speed control of DC motor
4.	Determination of the characteristics of a compound DC generator (short shunt)
5.	Determination of speed of DC series motor as a function of load torque.
6.	Polarity test on a single phase transformer
7.	Determination of equivalent circuit of a single phase transformer and efficiency.
8.	Study of different connections of three phase transformer.
9.	Study of Parallel operation of a single phase transformers.
10.	Determination of temperature rise and efficiency of the transformer.(Back to back test)

Course Outcome:

After completion of this course, the learners will be able to

1. identify appropriate equipment and instruments for the experiment.
2. test the instrument for application to the experiment.

3. construct circuits with appropriate instruments and safety precautions
4. validate different characteristics of DC machine , methods of speed control of DC motor and parallel operation of the transformer
5. work effectively in a team

Special Remarks: The above-mentioned outcomes are not limited. Institute may redefine outcomes based their program educational objective.