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	**ELECTRICAL & ELECTRONICS MEASUREMENT LABORATORY**
Course Code:PC-EE493	**Semester: 4th**
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.	Instrument workshop- Observe the construction of PMMC, Dynamometer, Electrothermal and Rectifier type of instruments, Oscilloscope and Digital multimeter.
2.	Calibrate moving iron and electrodynamometer type ammeter/voltmeter by potentiometer.
3.	Calibrate dynamometer type wattmeter by potentiometer.
4.	Calibrate AC energy meter.
5.	Measurement of resistance using Kelvin double bridge.
6.	Measurement of power using Instrument transformer.
7.	Measurement of power in Polyphase circuits.
8.	Measurement of frequency by Wien Bridge.
9.	Measurement of Inductance by Anderson bridge
10.	Measurement of capacitance by De Sauty Bridge.
11.	Measurement of capacitance by Schering Bridge.

Course Outcome:

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

7. identify appropriate equipment and instruments for the experiment
8. test the instrument for application to the experiment
9. construct circuits with appropriate instruments and safety precautions
10. evaluate and adjust the precision and accuracy of AC energy meter, moving iron and dynamometer type ammeter, voltmeter and wattmeter by potentiometer
11. measure voltage, current, power, energy, phase , frequency, resistance, inductance, capacitance
12. work effectively in a team

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