IV Year I Semester	L	T	P	C
17EE752	0	0	3	2

POWER SYSTEM & SIMULATION LABORATORY
(Skill Course Lab-II)

Learning objectives:

1. To perform fault analysis, evaluation of bus admittance and impedance matrices

Note: Any of the 10 experiments are to be conducted

1. Form the Y_{BUS} by using both direct inspection method and singular transformation method.
2. Form the Z_{BUS} for a given network using step by step method.
3. Calculation of R, L, C, Z_s of 3-phase Transmission Line
4. To evaluate the voltage distribution of a sting of insulators
5. To evaluate the fault currents on a transmission line.
6. To evaluate the feeder rating for a radial test bus system. ANN based solar MPPT experiment
7. Estimation of TARIFF based on load curve
8. To perform the load flow analysis using Fast Decoupled Method of load flow.
9. To perform the transient analysis using point by point method.
10. ANN based solar MPPT algorithm.

Software Packed Used:

1. MATLAB/Simulink 2017 (a) Licensed version

Text books:

1. Charles K. Alexander and Mathew N.O. Sadiku, “Fundamentals of Electric Circuits”, 5th Edition, Tata McGrawHill Publications, 2012.

Reference books:

1. M.E. Van Valkenburg , “Network Analysis”, Prentice Hall of India Pvt Ltd.,3rd Edition, New Delhi.
2. Hayt and Kemmerly, “Engineering Circuit Analysis”, Tata McGrawHill Publications, 7th Edition, 2007.