Course Type	Course Code	Name of the Course	L	T	P	Credits
DP	NEEC518	Advanced Simulation Lab	0	0	3	1.5

Course Objective

- The objective of this lab is to introduce postgraduate students to the MATLAB simulation software.

Learning Outcomes

Upon successful completion of this course, students will develop:

- an ability to deal with electrical model simulation in MATLAB.
- an idea about the working on projects using MATLAB Simulation.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Experiments on different traditional optimization techniques using MATLAB/ SIMULINK	2x4	Students will learn working of different traditional optimization techniques
2	Experiments on different meta-heuristic optimization techniques using MATLAB/ SIMULINK	2x4	Students will learn working of different meta-heuristic optimization techniques
3	Experiments on different intelligent control techniques using MATLAB/ SIMULINK	2x4	Students will learn working of different intelligent control techniques
4	Experiments using script file in MATLAB/ SIMULINK	2x3	Students will learn use of script file
5	Experiments on live script file in MATLAB/ SIMULINK	2x3	Students will learn use of live script file
6	Practice and review	6	---
	Total Contact Hours	**42**	

Text Books:

1. Dr. Shailendra Jain, :"Modeling & Simulation Using MATLAB-Simulink", Wiley India

Reference Books:

1. RudraPratap, "Getting Started with MATLAB", Oxford University Press, 2010.
2. Amos Gilat, "MATLAB –an introduction with Applications", 4th Edition, JOHN WILEY & SONS, INC.