

Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NMCC511	Neural Networks & Deep Learning Lab	0	0	3	1.5

Course Objective
• To give an Idea about Neural Network & Deep Learning applications in Data Analytics
Learning Outcomes
• Upon successful completion of this course, Students will learn how to use Neural Network & Deep Learning in Data Analytics.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Implementation of different activation functions to train Neural Network, Implementation of different Learning Rules, Implementation of Perceptron Networks	08	This unit will help students to learn the implementation of different activation functions to train Neural Network, implementation of different Learning Rules, implementation of Perceptron Networks.
2	Implementation of Adeline network for system identification, Implementation of Madeline network, Pattern matching using different rules.	08	This unit will make students learn the implementation of Adeline network for system identification, implementation of Madeline network, Pattern matching using different rules.
3	Project related to application of machine learning in healthcare, Project related to application of machine learning in business analysis	10	Students will do some projects and learn how to implement machine learning in healthcare and in business analytics
4	Project related to application of machine learning in sports analytics, Project related to application of machine learning in Time Series Analysis & Forecasting.	10	Students will do some projects and learn how to implement machine learning in sports analytics and applications of Machine learning Techniques in Time Series Analysis & Forecasting.
5	Practice session and Practical Lab Exam etc.	06	
Total		42	

Text Book:

1. S. N. Sivanandam and S. N. Deepa, Introduction to neural networks using Matlab, 2016.

Reference Book:

1. Simon Haykin, Neural Networks and Learning Machines, PHI, 2008.