Course Type	Course Code	Name of Course	L	T	P	Credit
DE	NMCD508	Big Data	3	0	0	3

Course Objective
• This course will provide exposure to theory of Big data.
Learning Outcomes
• Students will able to use Big data analysis in Data Analytics.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Basic Statistics and R, basic statistical concepts with a brief review of R.	10	This unit will help students to understand of R and its use in Statistical Analysis.
2	Relationships and Representations, Graph Databases. Introduction to Spark 2.0 and Hadoop.	10	This unit will help students to understand Relationships and Representations, Graph Databases.
3	Language processing, Analysis of Streaming Data, Applications of ML Library, Basic Neural Network and Tensor Flow, Advance Tensor Flow	10	This unit will help students to get the concept Language processing, Analysis of Streaming Data, Applications of ML Library, Basic Neural Network and Tensor Flow, Advance Tensor Flow.
4	Assessing Quality of Big Data Analysis, Analysis of Images, OCR Applications, Analysis of Speech Signal, Page Rank like Search systems, Analysis of Streaming Data with Tensor Flow, VoltDB, Data Flow Engines and other memory databases.	12	This unit will help students to get the idea about the applications of Big data in various areas like: Image analysis, Speech and Signal analysis, analysis of Data flow engine, etc.
	Total	42	

Text Books:

1. H. Karau, Andy Konwinski, Patrick Wendell, Matei Zaharia, Learning Spark: Lightning-Fast Big Data Analysis, O'Reilly Media Inc, 2015

Reference Books:

1. Data Science and Big Data Analytics: Discovering, Analyzing, Visualizing and Presenting Data, EMC Education Services, John Willey & Sons, 2015
2. T. Harkness, Big Data: Does Size Matter? Bloomsbury Publication, 2015