

BIG DATA ANALYTICS [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 - 2018) SEMESTER – VIII			
Subject Code	17CS82	IA Marks	40
Number of Lecture Hours/Week	4	Exam Marks	60
Total Number of Lecture Hours	50	Exam Hours	03
CREDITS – 04			
Module – 1			Teaching Hours
Hadoop Distributed File System Basics, Running Example Programs and Benchmarks, Hadoop MapReduce Framework, MapReduce Programming			10 Hours
Module – 2			
Essential Hadoop Tools, Hadoop YARN Applications, Managing Hadoop with Apache Ambari, Basic Hadoop Administration Procedures			10 Hours
Module – 3			
Business Intelligence Concepts and Application, Data Warehousing, Data Mining, Data Visualization			10 Hours
Module – 4			
Decision Trees, Regression, Artificial Neural Networks, Cluster Analysis, Association Rule Mining			10 Hours
Module – 5			
Text Mining, Naïve-Bayes Analysis, Support Vector Machines, Web Mining, Social Network Analysis			10 Hours
Course outcomes: The students should be able to:			
<ul style="list-style-type: none"> • Explain the concepts of HDFS and MapReduce framework • Investigate Hadoop related tools for Big Data Analytics and perform basic Hadoop Administration • Recognize the role of Business Intelligence, Data warehousing and Visualization in decision making • Infer the importance of core data mining techniques for data analytics • Compare and contrast different Text Mining Techniques 			
Question paper pattern: The question paper will have ten questions. There will be 2 questions from each module. Each question will have questions covering all the topics under a module. The students will have to answer 5 full questions, selecting one full question from each module.			
Text Books: <ol style="list-style-type: none"> 1. Douglas Eadline, "Hadoop 2 Quick-Start Guide: Learn the Essentials of Big Data Computing in the Apache Hadoop 2 Ecosystem", 1st Edition, Pearson Education, 2016. ISBN-13: 978-9332570351 2. Anil Maheshwari, "Data Analytics", 1st Edition, McGraw Hill Education, 2017. ISBN-13: 978-9352604180 			
Reference Books:			
<ol style="list-style-type: none"> 1) Tom White, "Hadoop: The Definitive Guide", 4th Edition, O'Reilly Media, 2015. ISBN-13: 978-9352130672 2) Boris Lublinsky, Kevin T. Smith, Alexey Yakubovich, "Professional Hadoop Solutions", 1st Edition, Wrox Press, 2014 ISBN-13: 978-8126551071 			

- 3) Eric Sammer, "**Hadoop Operations: A Guide for Developers and Administrators**", 1st Edition, O'Reilly Media, 2012. ISBN-13: 978-9350239261