



Big Data
Big Data
[ELECTIVE COURSE]

Semester: III

Credits: 3

Subject Code: BC32105

Lectures: 48

Course Outcomes:

At the end of this course the learner will have the,

- Identify and Recognize comprehensive platform for career development, innovation and further study.
- Develop expert knowledge and analytical skills in current and developing areas of analysis statistics, and machine learning.
- Identify, develop and apply detailed analytical ,creative, problem solving skills.
- Create programs using R machine concepts

Unit 1: Introduction to Big Data

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- Introduction to Big Data
- Types of Digital Data
- Big Data Analytics
- Application of Big data

Unit 2: Introduction to Data Science

10

- Basics of Data Analytics.
- Types of Analytics
 - Descriptive,
 - Predictive,
 - Prescriptive
 - Statistical Inference
- Population and Samples
 - Statistical modeling,
 - Probability
 - Distribution
 - Correlation
 - Regression

Unit 3: Introduction to Machine Learning

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- Basics of Machine Learning.
- Supervised Machine Learning.
 - K- Nearest-Neighbours,
 - Naïve Bayes

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- Decision tree
- Support Vector Machines
- Unsupervised Machine Learning
 - Cluster analysis
 - K means
 - EM Algorithm
 - Association Rule Mining
 - priori algorithms
- Regression Analysis
 - Linear Regression
 - Nonlinear Regression

Unit 4: Data Analytic with R Machine Learning.

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- Introduction
- Data Manipulation
- Data Visualization
- Data Analysis

#12 hours for Library work, assignments practical or field work

Recommended Text Books:

- Seema Acharya, Subhasini Chellappan, "Big Data Analytics", Wiley 2015
- Jay Liebowitz, "Big Data and Business Analytics", Auerbach Publications, CRC press (2013)
- Arvind Sathi, "Big Data Analytics: Disruptive Technologies for Changing the Game", MC Press, 2012

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St. Mira's College for Girls, Pune
(SYBBA (CA) 2021-2024)

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