Teaching Lesson Plan

Semester-VIII

AMJ 3: ARTIFICIAL INTELLIGENCE FOR BUSINESS

Lecture hours: 60

OBJECTIVES: To equip the learners with the basic ideas and techniques underlying the usage of Artificial Intelligence in Business. The course illustrates both the potential and current limitations of these techniques with examples from a variety of applications.

SN	Subject and Objectives	Lectures Hrs	Methodology	Evaluation Mode
Unit-I	**Introduction**	**12Hrs**		
	Data & Data Science; Data analytics and data Conclusion using MS-Excel, Classification of Analytics, Introduction of Big Data, 5V of Big data, Big data as Solution in current business.	6	PPT, Illustrations	Q & A, Assignments
	Traditional Business intelligence versus Big data technology, Challenges for big data analytics; Data driven decision making.	6	PPT, Illustrations	Q & A, Assignments
Unit-II	**Analytical Tools**	**12Hrs**		
	1. Descriptive Statistics and Inferential Statistics; Advanced Analytical Techniques; Data Cleansing & Preparation; Data Summarization and Visualization. 2. Machine learning Algorithms. Describing data using charts and basic statistical measures. Correlation.	6 6	PPT, Illustrations	**CIA**
Unit-III	**Predictive Analytics**	**12Hrs**		
	Simple Linear Regression; Coefficient of Determination; Residual Analysis; Confidence & Prediction intervals.	6	PPT, Illustrations	Q & A, Assignments
	Multiple Linear Regression; Interpretation of Regression Coefficients; heteroscedasticity; multi collinearity.	6	PPT, Illustrations	Q & A, Assignments
Unit-IV	**Getting started with R**	**12Hrs**		
	Introduction to R and R Studio	12	PPT, Illustrations	Q & A, Assignments
Unit-V	**Textual Data Analysis**	**12Hrs**		
	1. Basics of textual data analysis, significance, application, and challenges. Methods and Techniques of textual analysis: Text Mining, Categorization, Entity Extraction, Sentiment Analysis, Deep Linguistics. 2. Introduction to Textual Analysis using Python.	6 6	PPT, Illustrations	Q & A, Assignments

Reference Books:

1. Alexander, M., Decker, J., & Wehbe, B. (2014). Microsoft Business Intelligence Tools for Excel Analysis. New Jersey: Wiley.
2. Kumar, D. U. (2017). Business Analytics: The Science of Data Driven Decision Making. N. Jersey: Wiley.
3. McKee, A. (2003). Textual Analysis: A Beginner's Guide. London: Sage Publication.
4. Motwani, B. (2019). Data Analytics with R. New Jersey: Wiley.
5. North, M. (2012). Data Mining for the masses. Athens, Georgia: Global Text Project.
6. Paul, T. (2011). R Cook book. New York: O Reilly Media'.
7. Provost, F., & Fawcett, T. (2013). Data Science for Business. New York: O'Reilly Media.

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