

MBA 336: BUSINESS INTELLIGENCE USING DATA MINING

Teaching Scheme	Examination Scheme
Lectures: 4 hrs./Week Tutorials: 1 hrs./Week Credits: 4	Class Test -12Marks Teachers Assessment - 6Marks Attendance – 12 Marks End Semester Exam – 70 marks

Course Objectives:


- Approach business problems data-analytically by identifying opportunities to derive business value from data.
- Know the basics of data mining techniques and how they can be applied to extract relevant business intelligence
- To analyse data, choose relevant models and algorithms for respective applications.
- To study spatial and web data mining.
To develop research interest towards advances in data mining.

Hours: 40


UNIT I (10 Hours): Data Mining Functionalities, Classification of Data Mining systems, Major issues in Data Mining. Data Pre-processing: Needs, Pre-processing the Data, Data Cleaning, Data Integration and Transformation, Data Reduction, Discretization and Concept Hierarchy Generation. Introduction to data warehousing: Data Warehouse and OLAP Technology for Data Mining, Data Warehouse, Design of data using Multidimensional Data Models, Data Warehouse Architecture, From Data Warehousing to Data Mining. Data Mining Primitives.

UNIT II (10 Hours): Definition, History, Business and Technical Drivers, Decision Makers and Decision Making Process, Role of Decision Support Tools. Components of BI solutions: BI Solutions with Backend Data Warehouse Solutions, Different Types and Uses of BI-Statistical Analysis, OLAP, Association Rule Mining, Correlation analysis, Classification and prediction, Cluster Analysis, Text Mining for Unstructured Data.

UNIT III (10 Hours): BI from Organizational and Business Perspective, Understanding Business Process, Process Reengineering, Customization, BI Testing, Deployment. BI Development Process: Agile process, Different Stages of BI Development Process.


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UNIT IV (10 Hours): Emerging Technology, BI Search and Text Analytics, Advanced Visualization, Rich Report lets. **BI Package:** Pentaho Business Analytics , Data integration, Analysis, Services, Reporting, Data Mining, Dash Board, Work Flow, ETL.

Suggested Readings:


1. Successful Business Intelligence, Indi Howson, McGraw-Hill, 2nd Edition, 2007.
2. Data Mining -Concepts and Techniques, Han, Kamber, Harcourt India, 2006.
3. Business Intelligence for Dummies, Swain Scheps, John Willy & Sons, 1st Edition, 2008.
4. Business Intelligence, Ramesh Sharda, Prentice Hall, 1st Edition, 2007.


COURSE OUTCOMES : After completion of this course, the student will be able to

COURSE OUTCOMES DESCRIPTION	
CO1	Ability to examine the types of the data to be mined and present a general classification of tasks and primitives to integrate a data mining system
CO2	Ability to discover interesting patterns from large amounts of data to analyse and extract patterns to solve problems, make predictions of outcomes.
CO3	Able to apply and analyse data mining for Business Intelligence Application.
CO4	Ability to compare and evaluate different data mining techniques like classification, prediction, clustering and association rule mining
CO5	Able to experiences towards research and innovation. integration.
CO6	Ability to identify and apply the knowledge of subject practically in real life situations

Employable Skills	Measuring Tools
Ability to identify and apply the knowledge of subject practically in real life situations	Exercise Workshop Quiz Classroom Discussions


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