



MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

COURSE CONTENT

INTRODUCTION TO BUSINESS INTELLIGENCE								
IV-I Semester:CSD								
CourseCode	Category	Hours/Week			Credits	MaximumMarks		
		L	T	P		C	CIA	SEE
24X6710	Foundation	3	0	0	3	40	60	100
		ContactClasses:42		TutorialClasses:Nil		PracticalClasses:Nil		TotalClasses:42
Prerequisites:Data Base Management Systems								

CourseOverview:

This course provides BI is the discipline of transforming raw data into meaningful insights that support strategic, tactical, and operational decision-making. This course introduces students to the concepts, tools, and techniques used to collect, analyze, visualize, and interpret data to drive business performance.

CourseObjectives:The students will try to learn

1. Understand the role and significance of BI in organizational decision-making,
2. Explore data warehousing and data mining techniques relevant to BI,
3. Analyze and interpret data for knowledge discovery,
4. Design and apply BI models and visualization tools,
5. Utilize BI strategies and technologies to support business operations and performance.

CourseOutcomes:The students will be able to:

1. Explain the fundamentals of business intelligence.
2. Link data mining with business intelligence.
3. Apply various modeling techniques.
4. Explain the data analysis and knowledge delivery stages.
5. Apply business intelligence methods to various situations.

UNIT- I:Business intelligence: Effective and timely decisions, Data, information and knowledge, The role of mathematical models, Business intelligence architectures, Ethics and business intelligence Decision support systems: Definition of system, Representation of the decision-making process, Evolution of information systems, Definition of decision support system, Development of a decision support system.

UNIT - II: Mathematical models for decision making: Structure of mathematical models, development of a model, Classes of models Data mining: Definition of data mining, Representation of input data, Data mining process, Analysis methodologies, Data preparation: Data validation, Data transformation, Data reduction.

UNIT - III: Business intelligence applications Marketing models:

Relational marketing, Sales force management, Logistic and production models: Supply chain optimization, Optimization models for logistics planning, Revenue management systems. Data envelopment analysis: Efficiency measures, Efficient frontier, The CCR model, Identification of good operating practices.

UNIT - IV: Knowledge Management:

Introduction to Knowledge Management ,Organizational Learning and Transformation, Knowledge Management Activities, Approaches to Knowledge Management, Information Technology(IT)InKnowledge Management, Knowledge Management Systems Implementation, Roles of People in Knowledge Management Artificial Intelligence and Expert Systems: Concepts and Definitions of Artificial Intelligence, Artificial Intelligence Versus Natural Intelligence, Basic Concepts of Expert Systems, Applications of Expert Systems, Structure of Expert Systems, Knowledge Engineering, Development of Expert Systems

UNIT - V: Future of Business Intelligence:

Emerging Technologies, Machine Learning, Predicting the Future with the help of Data Analysis, BI Search & Text Analytics – Advanced Visualization – Rich Report, Future beyond Technology.

TEXTBOOKS:

1. Business Intelligence: Data Mining and Optimization for Decision Making by Carlo Vercellis, Wiley India Publications.
2. Efraim Turban, Ramesh Sharda, Dursun Delen, “Decision support and Business Intelligence Systems”, 9th Edition, Pearson 2013.

REFERENCEBOOKS:

1. P. N. Tan, M. Steinbach, Vipin Kumar, “Introduction to Data Mining”, Pearson Education
2. Michael Berry and Gordon Linoff “Data Mining Techniques”, 2nd Edition Wiley Publications.
3. Michael Berry and Gordon Linoff “Mastering Data Mining- Art & science of CRM”, Wiley Student Edition Vikram Pudi & Radha Krishna, “Data Mining”, Oxford Higher Education.

ELECTRONICRESOURCES:

1. <https://www.geeksforgeeks.org/power-bi/what-is-business-intelligence/>
2. <https://github.com/michalis0/Business-Intelligence-and-Analytics>
3. <https://www.youtube.com/watch?v=hDJdkcdG1iA>

MATERIALS ONLINE:

1. Coursetemplate
2. Tutorialquestionbank
3. TechtalkandConceptVideotopics
4. Open-endedexperiments
5. Definitionsandterminology
6. Assignments
7. Modelquestionpaper–I
8. Modelquestionpaper–II
9. Lecturenotes
10. E-LearningReadinessVideos(ELRV)

