



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Engineering

Subject Code: 3721416

Management Information System

2nd SEMESTER

Type of Course: Elective

Prerequisite: NIL

Rationale:

This course is designed to provide a broad overview of the issues technology and general managers face when managing information systems.

Teaching and Examination Scheme

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
			ESE	PA(M)	Viva	PA (I)		
3	0	2	4	70	30	30	20	150

Course Contents

Sr.No.	Topics	Hrs.
1	Introduction to MIS The Need for Information Systems: Digital Convergence and the changing Business Environment; Information and Knowledge Economy; Contemporary Approach to IS and Management Challenges Dissemination of Information, History of Management Information Systems, Advantages and Disadvantages, Management information systems in construction industry, Types of Information Systems in the Organization; Information Technology and Strategy	07
2	Application of MIS in project management Computerized project management systems, use of automated programs for planning, scheduling, estimating and controlling construction projects, data processing and applications in pricing.	08
3	Application of MIS in Construction Industry Tendering, scheduling and cost control system, simulation of construction operations, internet technology, web applications in construction, use of project planner software.	08
4	Integrated construction Management Information System-Project Management Information System-Functional Areas, Finance, Marketing, Production, Personnel-Levels, DSS, EIS, ESS & MIS -Comparison, Concepts and Knowledge Representation-Managing International Information System.	08
5	System Audit	



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	System. Software Engineering Qualities-Design-Production, Service, Software Specification, Software metrics, Software Quality assurance-Systems Methodology-Objectives-Time and Logic, Knowledge and Human Dimension-Software Life Cycle Models-Verification and Validation.	
	Total	39

Reference Book(s)

- Management Information Systems – Organization and Technology by Kenneth C Laudon and Jane Price Laudon, Prentice Hall, 1996.
- Management Information System: Conceptual Foundations by Gordon B. Davis, Structure and Development, McGraw Hill, 1974.
- Case Series for Management Information Systems by Joyce J Elam, Simon and Schuster, Custom Publishing, 1996.
- Decision Support for managers by Ralph H Sprague and Huge J Watson, Prentice Hall, 1996.
- Software Quality assurance and Management by Michael W Evans and John J Marciniah, John Wiley And Sons , 1987
- Measuring Software Design Quality by Card and Glass, Prentice Hall, 1990.
- Management Information Systems by Sadagopan S., Phi Learning, 1997
- Corporate Information Strategy and Management: Text and Cases by Applegate, Lynda M., et al

Course Outcome

Sr. No.	CO statement	Marks % weightage
CO-1	Students would be able to comprehend types of Information Systems	25%
CO-2	Students would be able to schedule and control construction project in MIS environment	30%
CO-3	Students would be able to apply concepts of integrated construction management information	25%
CO-4	Students would be able to comprehend concepts of system audit	20%

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	25	20	20	15	10

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above

List of Open Source Software/learning website: www.nptel.ac.in/courses/