OEC INFORMATION SYSTEMS

Teaching Scheme
Lectures: 3 hrs/week

Examination Scheme
100 marks: Continuous evaluation-
Assignment/Quizzes – 40 marks
End Sem Exam - 60 marks

Unit 1: **(6 hrs)**

Introduction:
Define and understand the term information systems (IS). Technology, people, and organizational components of an information system, various types of information systems, nature of information systems in the success and failure of modern organizations, Understand and plan for the future of managing IS. Information systems for automation, organizational learning and strategic support, Formulate and present the business case for a system

Unit 2: **(8 hrs)**

Database Management and Internet:
Importance of databases in modern organizations, Working of database management systems, Database design, Query Processing, how organizations are getting the most from their investment in database technologies. Role of telecommunications in organizations, Types of computer networks, Extranets, Intranets, Working of Internet, Basic Internet services, World Wide Web.

Unit 3: **(6 hrs)**

Information Systems Development and Acquisition:
Process used by organizations to manage the development of information Systems. Major phases of the systems development life cycle: systems identification, selection, and planning; system requirement specifications; system design; system implementation; and system maintenance. Software prototyping, rapid application development, object-oriented analysis and design methods of systems development and their strengths and weaknesses, Factors in building a system in-house, along with situations, three system development options: external acquisition, outsourcing, and end-user development.

Unit 4: **(4 hrs)**

Organizational Information Systems:
Characteristics of the operational, managerial, and executive levels of an organization, decision support systems, expert systems, office automation systems, collaboration technologies

Unit 5: **(6 hrs)**

Electronic Commerce:
Business to Customer e-commerce, Business to Business e-commerce, Customer to Customer

e-commerce, Advantages and disadvantages of e-commerce, E-Commerce System Architecture, Payment schemes in e-commerce, Cash transactions in e-commerce, e-commerce applications.

Unit 6: (6 hrs)

Information Systems Ethics, Computer Crime, and Security:
Impact of computer ethics on information systems, Issues associated with information privacy, accuracy, property and accessibility, computer crime and list several types of computer crime, computer virus, worm, Trojan horse, and logic or time bomb, various methods for providing computer security, IT Act 2000.

Text Books:
- "Information Systems Today, Managing in the Digital World" , Third Edition by Leonard M. Jessup; Joseph S. Valacich, Publisher: Prentice Hall
- "Introduction to Information Technology", V. Rajaraman, PHI

Reference Books:
- "Information Systems Management in Practice" Barbara C. McNurlin, Ralph H. Sprague, Publisher: Pearson Education.

Outcome
After studying this course it will develop ability to:

- Analyse functional and non-functional requirements to produce a system architecture that meets those requirements
- Understand and apply process and methodology in building the application
- Create design models using known design principles (e.g. layering) and from various view points (logical, physical etc.)
- Explain and justify all the design choices and tradeoffs done during the application's development