MANGALORE UNIVERSITY
Department of Library and Information Science
Master of Library and Information Science

LSH552: INFORMATION TECHNOLOGY – III

Objectives:

- To study database design, development and management
- To know WINISIS and MS-Access
- To introduce the concept of digital library
- To understand the process of web programming, database connectivity
- To study the implications of Web technologies to library and information management.
- To understand internet tools and techniques
- To familiarize students with open sources library software

Course Outcomes (CO):

CO1 Familiarizing students with internet, design, development of DBMS, web design and digital library using metadata standards.

CO2 Skills for installing and customizing computer system application software like WINISIS,

CO3 Understanding of topology and requirements of computer networks and type for networks available for accessing information online

CO4 Knowledge of scripts and standards required for web design and programming.

CO5 Clear understanding of purpose, methods and cyber laws related to internet and its usage

CO6 Knowledge of computer hardware, software and other infrastructure required to develop digital library

CO7 Familiar with metadata and other web standards to create digital libraries and open sources software available for creating digital repositories

Unit 1 : Database: Design, Development and Management, Database Models, DBMS, RDBMS. Data mining and Data warehousing: Decision Support Systems (DSS) and Online Analytical Processing (OLAP). **06hrs**

Unit 2 : Study of WINISIS and MS-Access: System Overview, system Installation, Database Construction, Techniques, Menus, Tools and Creation of database **08hrs**

Unit 3 : Networks: Concept, Definition, Need, Uses. Network Topologies, Types of Networks LAN, MAN and WAN. Network Architecture, Network Protection and Security - TCP/IP, IPX. **06hrs**

Unit 4 : Web design: Web Server, Web hosting, using web graphics, medias, Design tools – HTML, XHTML, Dreamweaver, CSS, Javascripts. Website – types, Web standards. **08hrs**

Unit 7   :   Digital Library Standards, Storage, Security and Open Source Software: Standards- **08hrs**
MARC or MARC-21, Dublin Core Metadata, Z39.50. Storage-database and Security.
Open source software like Greenstone, DSpace and Eprint, Digital Library Projects.

Unit 5   :   Internet: History, ISP, Internet Tools and Services, Electronic resources available on **06hrs**
the Internet, WWW, E-Mail, Telnet, FTP, Internet Relay Chat. Search Engine,
Gopher, Archie, Veronica, WAIS, Usenet/List Forum, PING, Web sites, Browser,
Blogs, Semantic Web, Social Network, Cloud Computing, Regulation of Cyber Laws.

Unit 6   :   Digital Librareis: Meaning, Definition, Functions, Scope; Infrastructure required for **08hrs**
setting up a Digital Libraries – Hardware, Software and Human ware, Library
Materials, Digital Materials; Advantages and Disadvantages of Digital Libraries.
Institutional Repositories

References:
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5. Faruthi, S N Ed.**:** Library Techniques and Technologies Perspectives in Multimedia Library Development. New Delhi, Kanishka, 1997
6. Kent, A and Galvin, T J Ed.: Information Technology: critical Choice for library Decision Makers. 1992
7. Martin M: Schaum;s outline of Theory and problems of data processing
8. Menon, V V and Prasad, H N Ed.**:** Information Technology and National Development. Agra, Y K Publishers, 1994
9. Moorthy, A L **:** Information Technology applications in academic Libraries in India with emphasis on networking services and information sharing, Ahmedabad, INFLIBNET, 1997
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12. Rouse, Rowena**:** CD_ROM and online computing, Electronics and Telecommunication databases, London, ASLIB, 1994
13. Satyanarayana, R **:** Information Technology and its facts. New Delhi, Manak, 1998
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18. Prasher, R.G.: Indian Libraries in IT Environment, Medallion Press, Ludhiana, 2003.
19. Khaisar M. Khan, Mallaiah, Vishala B.K.: Proceedings of the National Conference on 'Democratization of Information using ICT: Role of Libraries for Social Enlightenment (DEMICT-2014), DLISc., Mangalagangothri, 2014, ISBN: 978-93-82845-33-1.