

Course - IV (e)

Digital Library Management System

Course Title & Code	Credits	Credit Distribution			Teaching Hours	Internal Marks	Exam Marks	Total Marks
		Lecture	Tutorial	Practical/ Practice				
Course-IV(e): Digital Library Management System	4	3	1	0	60 Hours	25	75	100

Course Objectives

Upon successful completion of this course, the scholars will gain knowledge about the Digital Libraries and its architecture along with national and international initiatives. In addition, they will learn about digitization workflows, metadata standards, interoperability protocols, preservation strategies, etc which will help them to practically implement the concept while working with the libraries. Further, this course will enhance their skills to evaluate the digital system and its performance through usability metrics and impact assessment.

Unit-1: Foundations and Architecture (15 Hours)

- ☞ Digital Library (DL): Concept, need, characteristics, and evolution
- ☞ Digital Library Architecture and 5S Framework
- ☞ Planning, design, implementation, evaluation and management of DL
- ☞ Digital Library Initiatives: National (NDLI, TKDL) and International (World Digital Library, Europeana, DPLA)

Unit-2: Digitization and Standards (15 Hours)

- ☞ Digitization: concept, need and methods
- ☞ File formats, tools and digitization workflow
- ☞ Compression: types and methods
- ☞ Metadata Types and Standards: Dublin Core, METS, MODS, PREMIS

Unit-3: Design and Development of Digital Libraries

(20 Hours)

- ☞ DL software: Greenstone Digital Library Software (GSDL), Dspace
- ☞ DL hardware: input capture devices: scanners, digital cameras
- ☞ Institutional Repositories (IR): Design, development, and policy formulation for scholarly communication
- ☞ Interoperability Standards: OAI-PMH (Metadata Harvesting), Z39.50, and SRU/SRW
- ☞ Digital Preservation: Long-term strategies including migration, emulation, and bit-preservation

Unit-4: Evaluation and Quality Metrics

(10 Hours)

- ☞ Methods of Evaluation of DLs
- ☞ Usability and User Experience (UX)
- ☞ Performance Metrics
- ☞ Impact Assessment

Essential Readings

- ☞ ARMS (WY). Digital libraries. Cambridge, MIT Press. 2001.
- ☞ CHOWDHURY (GG) and CHOWDHURY (S). Introduction to Digital Libraries. Facet Publishing. 2003.
- ☞ LESK (M). Understanding digital libraries. 2nd ed. San Francisco, Morgan Kaufmann. 2004.
- ☞ SCHUBERT (F) and CHOWDHURY (GG). Digital libraries and information access: Research Perspectives. London, 2012.
- ☞ TEDD (LA) and LARGE (JA). Digital Libraries: Principles and practice in a global environment. Walter de Gruyter. 2005.
- ☞ WITTEN (IH), BAINBRIDGE (D) and NICHOLS (DM). How to build a digital library. Morgan Kaufmann. 2010.
- ☞ ALBERT (B) and TULLIS (T). Measuring the User Experience: Collecting, Analyzing, and Presenting UX Metrics (Interactive Technologies). 3rd ed. Morgan Kaufmann. 2022.
- ☞ O'Dwyer (A), Dobрева (M) and Feliclat (P). User Studies for Digital Library Development. Facet Publishing. 2012.

Suggested Readings

- ☞ CALHOUN (K). Exploring digital libraries: Foundations, resources, and futures. London, Facet Publishing. 2017.
- ☞ CHOWDHURY (GG) and CHOWDHURY (S). Information Users and Usability in the Digital Age. Facet Publishing. 2011.
- ☞ XIE (I) and MATUSIAK (KK). Discover digital libraries: theory and practice. Elsevier. 2016.