

Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with 'A++' Grade by NAAC.CGPA 3.65/4, Category I by UGC
Coimbatore-641 043, Tamil Nadu, India



Report of the First Short Term Capacity Building Program on

Smart Data Storage: Next Gen Archiving and Retrieval

**Organised
by**

**AIU – Avinashilingam Institute – Academic and
Administrative Development Centre (AIU-AI-AADC)**

19.02.2024 - 23.02.2024

Mode : Online

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Coimbatore-641 043, Tamil Nadu, India



First Short Term Capacity Building Program on

Smart Data Storage: Next Gen Archiving and Retrieval

PROGRAMME COORDINATOR

Dr. (Mrs.) T. Thilagavathi

Assistant Librarian (SG)

Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore – 641 043

ORGANIZING SECRETARIES

(Mrs.) K. Mahalakshmi

Assistant Librarian (SS)

Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore – 641 043

(Mrs.) J. Geetha

Information Scientist

Avinashilingam Institute for Home Science and Higher
Education for Women, Coimbatore – 641 043



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Coimbatore-641 043, Tamil Nadu, India



AIU-AI-AADC

First Short-Term Capacity Building Programme for the year 2024 on

‘Smart Data Storage: Next Gen Archiving and Retrieval’

19.02.2024 to 23.02.2024 (5 Days) - Online Mode

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Avinashilingam Institute for Home Science and Higher Education for Women

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Coimbatore - 641 043, Tamil Nadu, India

AIU-AI-AADC

Report on First Short-Term Capacity Building Program on Smart Data Storage: Next-Gen Archiving and Retrieval

19.02.2024-23.02.2024

The AIU-AI-AADC (Association of Indian Universities - Avinashilingam Institute - Academic & Administrative Development Centre) and the Central Library organized its First Short Term Capacity Building Program on Smart Data Storage: Next-Gen Archiving and Retrieval for 2024 between *19th to 23rd February 2024* with multi-fold objectives: equip participants with a deep understanding of the latest innovations in smart data storage technologies, enhance retrieval capabilities through advanced techniques for quick and accurate data access, explore the benefits and best practices of leveraging cloud-based solutions for scalable and secure archiving, provide strategies and tools for efficient management and archiving of large datasets in the educational context, showcase real-world applications of smart data storage technologies through case studies and success stories, tailor content to the specific needs of information scientists, focusing on advanced topics and specialized knowledge, facilitate networking and collaboration, encouraging the exchange of best practices and community-driven problem-solving. There were 18 participants from various higher educational institutions (HEIs) attended the program in online mode. This is an international program. The following image shows some of the participants with their videos unmuted.



Few of the Participants and Organisers with their videos unmuted

Day I Inauguration (19.02.2024; 9.30 am-10.15 am)

The program started with a prayer, Dr. K. Ramya, Nodal Officer, AIU-AI-AADC, Assistant Professor - SG, Business Administration, welcomed the gathering, followed by a prologue of the program by Dr. T.Thilagavathi, Assistant Librarian (SG) and Programme Coordinator. Dr. Devika P. Madalli, Director, INFLIBNET Centre, Gandhinagar, Gujarat, inaugurated the program, and madam, in her inaugural address, opined that data sets produced in various contexts and become a knowledge resource. There needs to be a paradigm shift in the libraries handling datasets and their retrieval to the user fraternity. Dr. K. Mahalakshmi, Assistant Librarian, proposed a vote of thanks, and the master of the ceremony done by Mrs. J. Geetha, Information Scientist.



Inauguration by Dr. Devika P.Madalli

Day I Session I (19.02.2024; 10.00am-11.15am)

After the inauguration, the first-day first session was handled by Dr Devika P. Madalli, Director, INFLIBNET Centre, Gandhinagar, Gujarat, on "Smart data storage in Higher Education Institutions". Madam highlighted the need for smart data storage to manage the explosion of data, optimize business operations, efficiently utilise resources, and enhance retrieval speed. She also discussed the challenges involved in the volume of data and scalability issues, data security and compliance, and the complexity involved in data migration, accessibility, and retrieval speed. The following strategies can be adopted in smart data archiving: data classification and prioritisation, automating archiving due to the data and complex nature, dynamic storage allocation and regular data audits. When dealing with intelligent retrieval techniques, she emphasised the role of libraries in indexing and metadata tagging, search algorithms, leveraging AI for intelligent retrieval and dynamic query optimisation. Madam clearly explained the need for smart data storage with case studies of financial institutions and the healthcare industry.

Take away messages

Data sets are a knowledge resource
Smart data storage are backbone of knowledge exploration
Provides a foundation for technological advancements



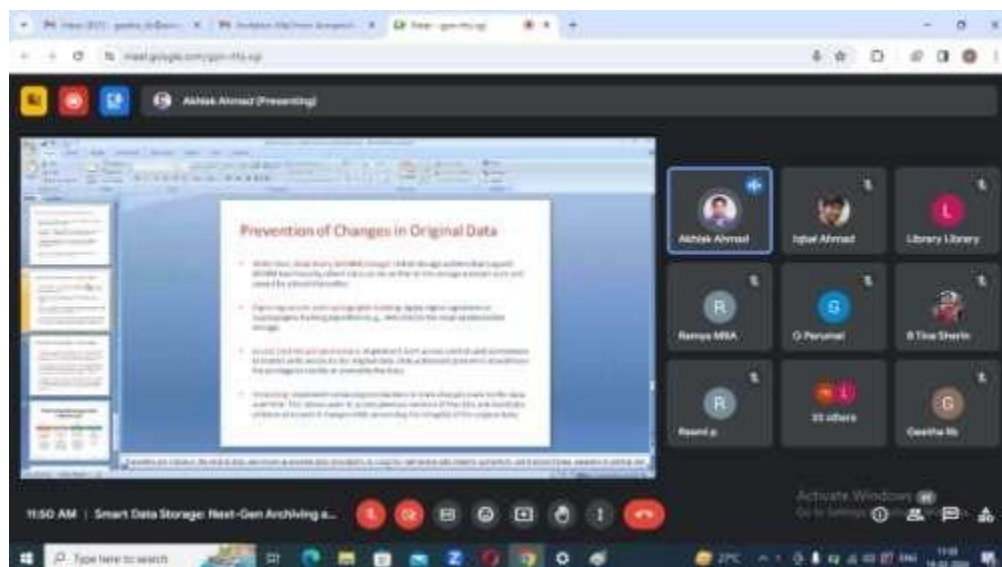
Day I Session I on Smart Data Storage in Higher Education Institutions

Day I Session II (19.02.2024; 11.15am-12.45pm)

Dr. Akhlaq Ahmad, Library Associate, Centre for Women's Development Studies, New Delhi, handled a session on "Best Practices in Data Archiving and Retrieving in HEIs." He shared the practices that they have undergone in their library. Also, he spoke about the various structures and types of metadata, file formats, key characteristics of data archiving, multiple steps involved in data migration without data loss, storage medium, and data integrity and security aspects. He also highlighted the role of PREMIS, an internationally recognised digital archiving standard.

Take away messages

Case study of CWDS
Metadata standards
Data migration without its loss



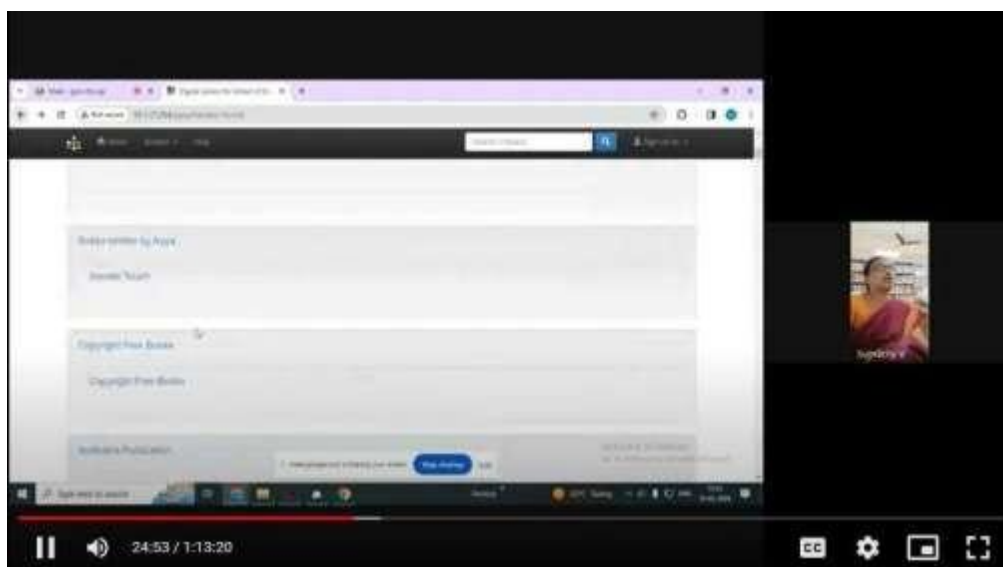
Day I Session II Best Practices in Data Archiving and Retrieving in HEIs

Day I Session III (19.02.2024; 01.30 pm-03.00 pm)

Dr K. Mahalakshmi, Assistant Librarian of Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, handled a session on "About the Library of Avinashilingam Institute for Home Science and Higher Education for Women." She highlighted the library's resources and services in two videos. One video is for the School of Education Library, and another is about using print resources such as books and journals, with students and scholars portraying articles from journals and the contents of the books. She has also shown the online demo of the library website, the facility for the divyangjan, and the archival activities in the School of Education Library.

Take away messages

Library Website Archival
Activities of the Library
Special services of the library



Day I Session III About the Library of Avinashilingam Institute

Day I Session IV (19.02.2024; 3.15 pm-04.45 pm)

Dr. Dhanukumar Pattanashetti, IEEE Client Services, discussed about "Enhancing Research on Smart Data Storage with IEEE Publications" session with examples from the IEEE database. He has also shown the online demo of new features, such as the author center and my research project added to the IEEE database. He also highlighted the top tech trends for 2024, IEEE conferences, new journals, and publications. In between the sessions, there was an online quiz to keep the participants active; apart from that, he also showed the live demo of the IEEE website with search options such as advanced search, command search and citation search.

Take away message

Search options and storage in IEEE database

New features added in IEEE



Day I Session IV Enhancing Research on Smart Data Storage with IEEE Publications

Day II Session I (20.02.2024; 10.00am-11.15am)

Dr. Nabi Hassan, Librarian and Head of Central Library, Indian Institute of Technology, New Delhi, handled the I session on “Artificial Intelligence in Libraries”. He discussed the origin of artificial intelligence, components of AI, areas of AI application in libraries, advantages and disadvantages. He has shown the live demo of the IITD library website with AI-supported features, such as a chatbot named BibDAIL+, and shown the AI-enabled smart library assistants of other libraries worldwide and the work it is doing in their respective Libraries. A few are Yamanaka Public Library and the Library of Konan University. He has also shared his experiences with augmented reality at the Kalaignar Centenary Library, Madurai.

Take away Messages

- Role of AI in the Libraries with Live examples
- AI-enabled service in IITD
- Content generation using ChatGPT



Day II Session I Artificial Intelligence in Libraries

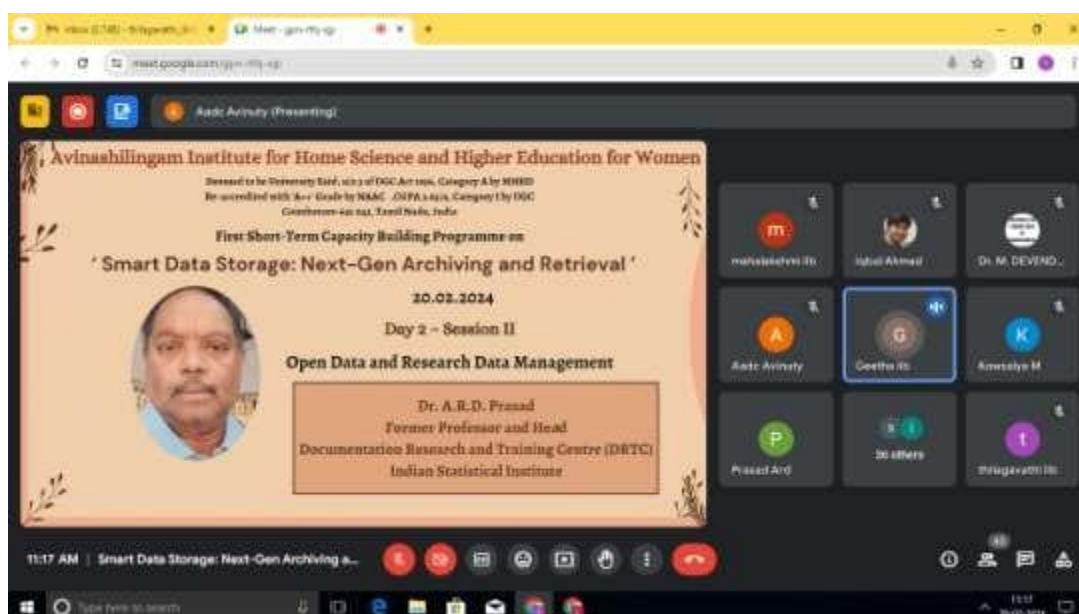
Day II Session II (20.02.2024; 11.30am-12.45pm)

On the second day II, session II was handled by Dr. A R D Prasad, Former Professor and Head of the Documentation Research and Training Centre (DRTC) on “open data and research data management.” He started his session by defining data, its sources, and formats such as experimental, clinical, and survey. He also touched upon big data, three Vs, such as veracity, validity, and volatility of big data, as well as who all the stakeholders of big data, open data, and research data management are. While dealing with Research Data Management, its definition, need for it, rules involved, types of various research data, and the FAIR Policy wherein F stands for findable, A-Accessible, I-Interoperable, and R-Reusable. He also discussed the different data formats, licenses, and competencies librarians require in research data management.

Take away Messages

Domain-Specific Curation Strategies

GoI shall come out with a Policy decision about repositories for data sets
Data-intensive domains



Day II Session II Open data and Research Data Management

Day II Session III (20.02.2024; 1.30pm-03.00 pm)

Dr. R. Karthikeyan, Professor & Head, Department of Artificial Intelligence and Data Science, Dr.NGP Institute of Technology, Coimbatore, handled a session on “Cloud Archiving Trends and Best Practices, Multi-cloud Strategies”. He described the various storage mediums, categories of cloud space such as public, private, and hybrid, and services of cloud computing such as SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service). He explained the definition of cloud archiving and the processes involved in cloud archiving. In between, the Resource Person asked questions to keep the participants interactive. He clearly explained the steps involved in cloud archiving with an example of Oracle cloud storage, how to download an uploaded object from the cloud space and, of course, its advantages and disadvantages. He also highlighted the key trends in

data archiving such as data lifecycle management and integration with machine learning and security considerations of cloud archiving. While dealing with compliance and regulatory requirements for cloud archiving, the following points are to be considered: industry-specific regulation, data retention policies and regular compliance audits. At the end of the session, the participants had questions, and the Resource Person answered them well.

Take away Messages

- Types of Cloud computing service
- Cloud archiving
- Security



Day II Session III Cloud Archiving and Multi Cloud Strategies

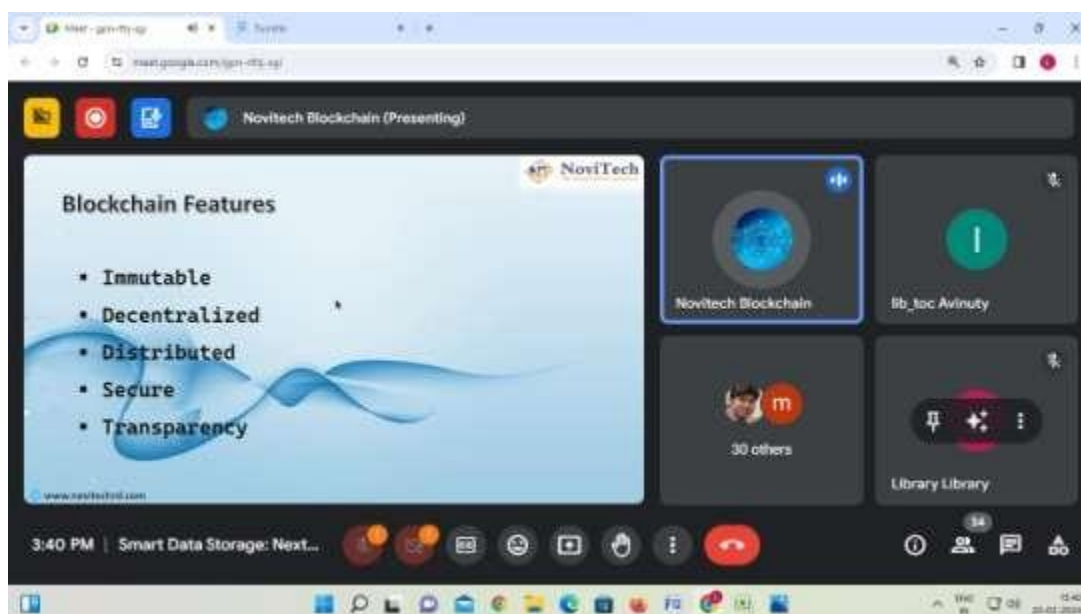
Day II Session IV (20.02.2024; 3.15 pm-04.45 pm)

"Application of Blockchain in data Archiving" was the topic handled by Mr.Sadhrul Hudha A.H., Software Engineer, NoviTech R &D Pvt Ltd., Coimbatore. He started the session by briefly introducing the company, its services, and its expertise. He clearly explained the concepts of blockchain and real-life examples of blockchain storage. He also touched upon the features of blockchain, such as immutability, decentralisation, distribution, security, and transparency. Blockchain is used in the creation, distribution, trading, and storing of Bitcoin. He also explained the steps involved in creating a block, bitcoin, its inventor, and its process. The following are the areas of application of smart contracts: voting, money transfers, lending of loans, real estate, and security of personal information. He has shown the live demo of the website OpenSea. The participants were introduced to the "Ganach" app to run blockchain in a system.

Take away messages

Concepts and applications of

Bloch chainSteps involved in Bitcoin



Day II Session IV Application of Blockchain in data Archiving

Day III Session I (21.02.2024; 10.00am-11.15am)

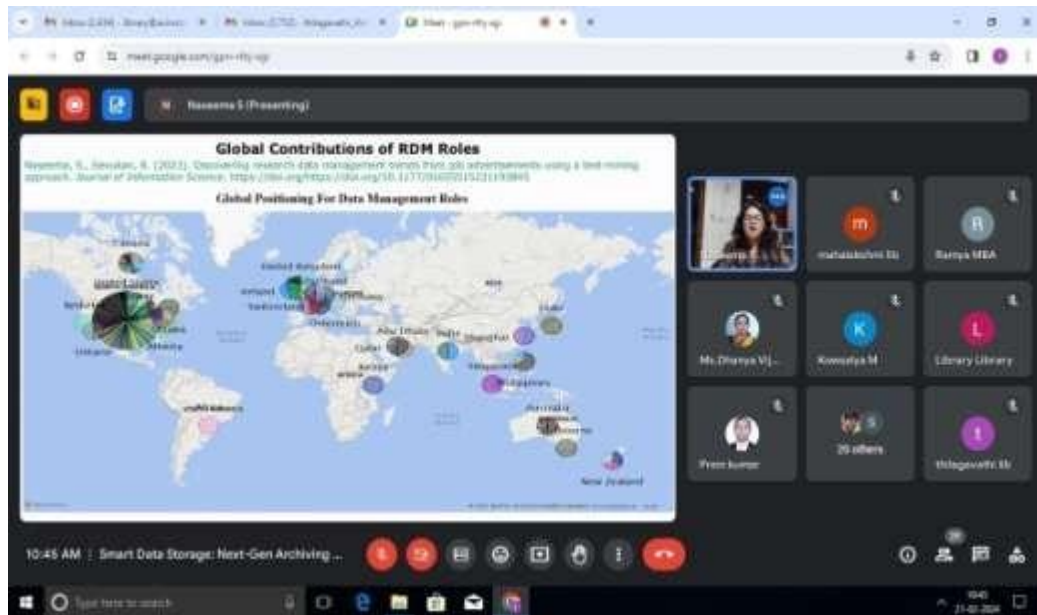
Ms. Naseema Sheriff, Senior Research Fellow, Pondicherry University handled a session on “Collaborative Data Governance and Data Management Committees”. She described the ways of managing and organizing data, Research Data Management(RDM), Data governance and Data management. She highlighted the roles and responsibilities of RDM, which involve researchers, institution support services, funding agencies, publishers, and repositories. She also explained the data management committees implement the operational aspects of data management practices. RDM helps research integrity, funding opportunities, increased research impact, efficient collaboration, cost saving, preservation of institutional knowledge and competitive advantages.

Take away messages

Roles and responsibilities of Research Data Management

Data Governance

Data Management Committees



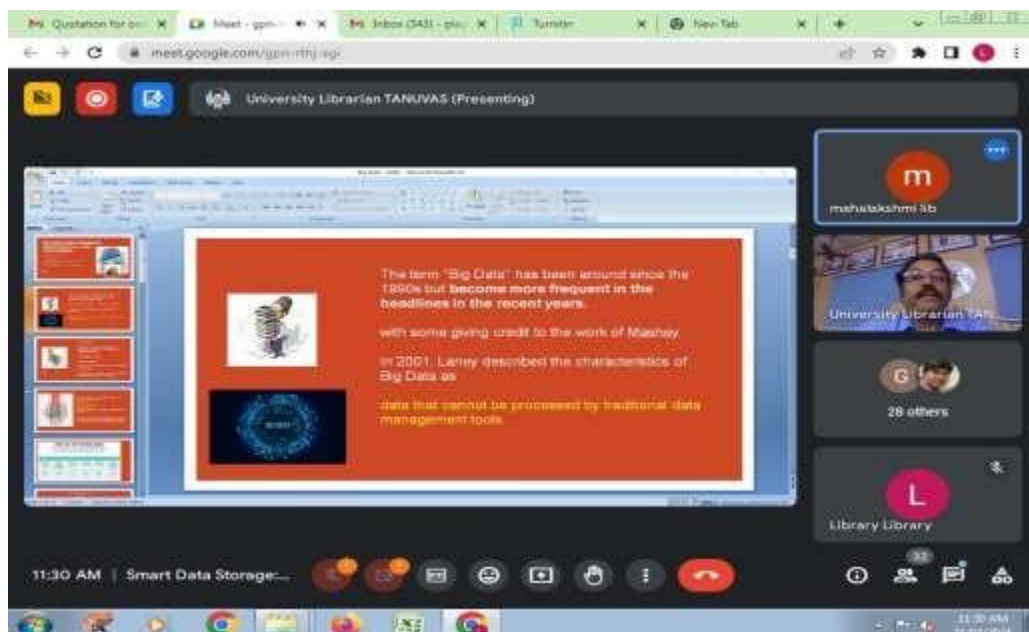
Day III Session I Collaborative Data Governance and Data Management Committees

Day III Session II (21.02.2024; 11.30am-12.45pm)

Dr. Rathinasababathy. G, University Librarian, Tamilnadu Veterinary and Animal Sciences University, Chennai, handled a session on **“Big Data and Libraries : Opportunities and challenges”**. He explained the concept and types of big data, the six v’s involved in handling big data such as volume, variety, velocity, veracity, value and variability. He emphasized the role of various libraries in organising, preserving, disseminating and the challenges of archiving big data.

Take away messages

- Big Data organization
- Preservation
- Dissemination



Day III Session II Big Data and Libraries : Opportunities and challenges

Day III Session III (21.02.2024; 1.30pm-03.00 pm)

Dr. S. Rajalakshmi, Professor, Department of Artificial Intelligence and Data Science, Dr.NGP Institute of Technology, Coimbatore handled a session on “**Importance of cyber security in Data Archiving**”. She discussed the predicament of today’s world, which includes cyber threats, malware, viruses, worms, and password attacks. She highlighted the various cyber laws that are available to help people face these challenges.

Take away messages

- Cyber threats
- Cyber Security
- Cyber Laws



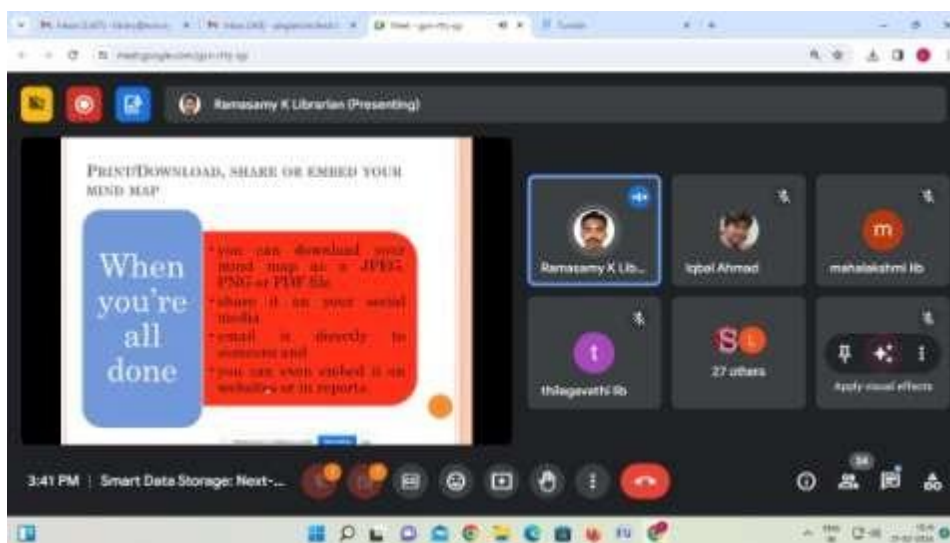
Day III Session III Importance of cyber security in Data Archiving

Day III Session IV (20.02.2024; 3.15 pm-04.45 pm)

Dr.K.Ramasamy, Librarian, M.V. Muthiah Government Arts College for Women, Dindigul, handled a session on “**XMind : Mind Mapping Tool** ”. He explained the mind-mapping tool supports clarity of thinking, manages complex information, and leads to creativity. He shared his views on installing and using XMIND with an online Demo.

Take away messages

- Mind Mapping Tool



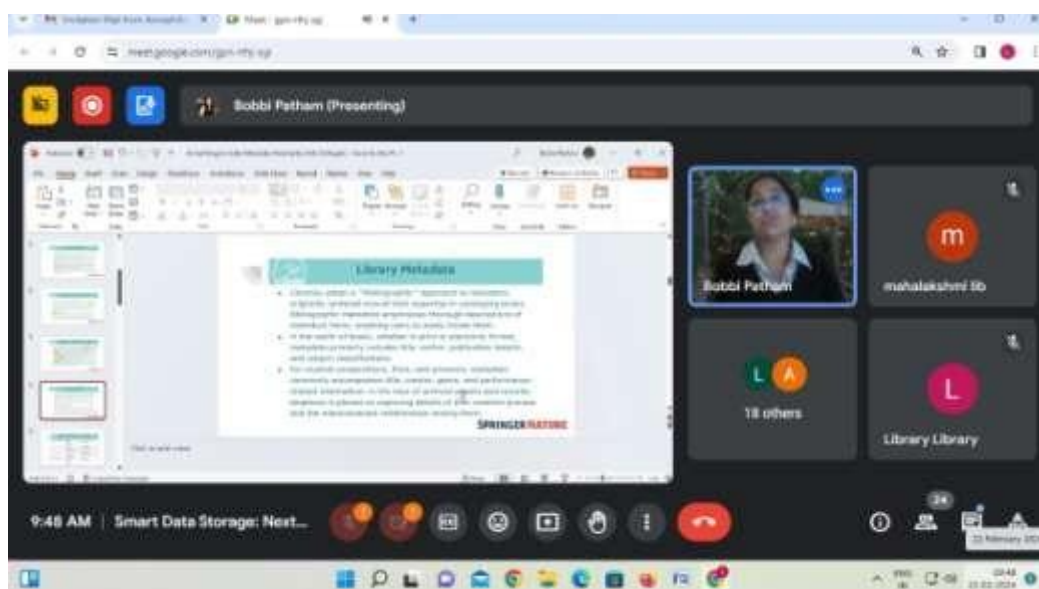
Day III Session IV XMind : Mind Mapping Tool

Day IV Session I (22.02.2024; 10.00am-11.15am)

Mrs. Parvathi Patham, Global Manager, Discovery & Discovery Services, Springer Nature, USA, handled a session on **“Metadata Formats for Effective Information Retrieval”**. She explained the types, uses, storage of metadata and metadata standards. She also **highlighted** the role of discovery providers in information retrieval, open discovery initiatives, KBART and KBART Automation.

Take away messages

- Metadata Standards
- KBART



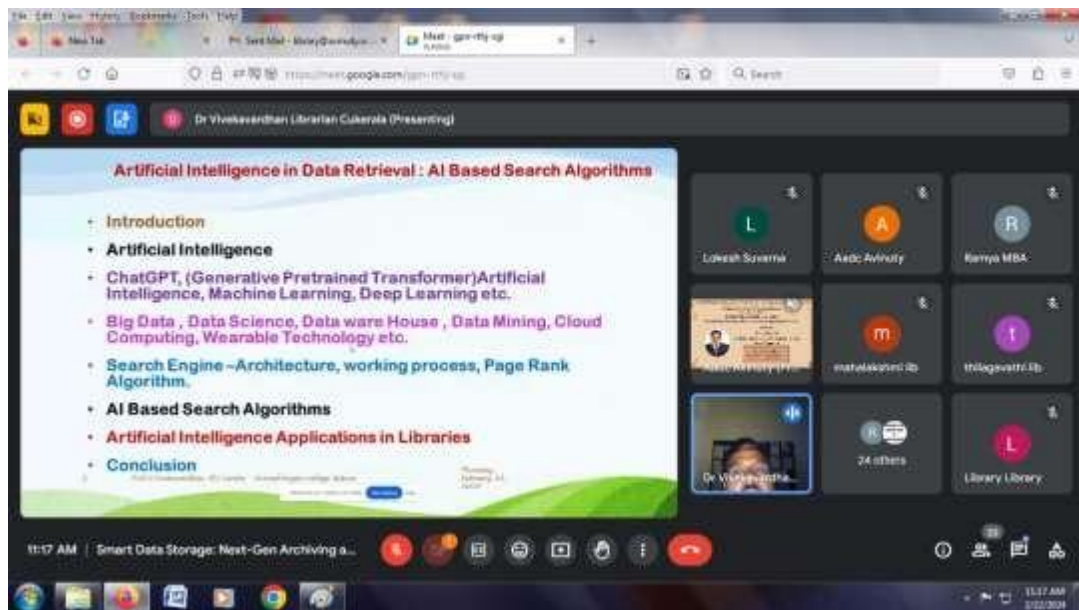
Day IV Session II (22.02.2024; 11.30am-12.45pm)

Dr. J. Vivekavardhan, Professor/ University Librarian, Central University of Kerala, handled a session on **“Artificial Intelligence in Data Retrieval - AI Based search algorithms”**. He explained the concepts of Artificial Intelligence, Chatgpt, Machine Learning and Deep Learning influence our

day-to-day lives. He highlighted the application of AI in smartphones, smart homes, and the Internet of Things (IoT).

Take away messages

Data Warehousing
Data Mining



Day IV Session II Artificial Intelligence in Data Retrieval - AI Based search algorithms

Day IV Session III (22.02.2024; 1.30pm-03.00 pm)

Mr. M. Manikanda Subbu, Assistant Director, Roja Muthiah Research Library, Chennai, handled a session on “**Digital Archiving: Roja Muthiah Research Library-A case study.**” He explained the practices that they have followed in their library to preserve information for posterity. He highlighted the various structures and types of metadata, file formats, key characteristics of data archiving, various steps involved in data migration without data loss, storage medium, and data integrity and security aspects. He described the role of PREMIS, digitization and archiving of materials, equipment used, preservation formats, editing, quality control, types of storage media, network attached to storage and cataloging.

Take away messages

Digital Archiving

Day IV Session IV (22.02.2024; 3.15 pm-04.45 pm)

Professor (Dr.) Ramesh C. Gaur, Dean (Administration), Indira Gandhi National Centre for the Arts (IGNCA), New Delhi, Ministry of Culture, Government of India a session on “**Basics of Next-Gen Archiving : Concepts and Principles**”. He explained the significance of archiving, next generation archives, Mausam and preservation of archives in India. He highlighted the challenges and issues in digital archiving and management and Unesco’s charter for the preservation of digital heritage and monuments.

Take away messages

Next-Gen Archiving
Mausam



Day IV Session IV Basics of Next-Gen Archiving: Concepts and Principles

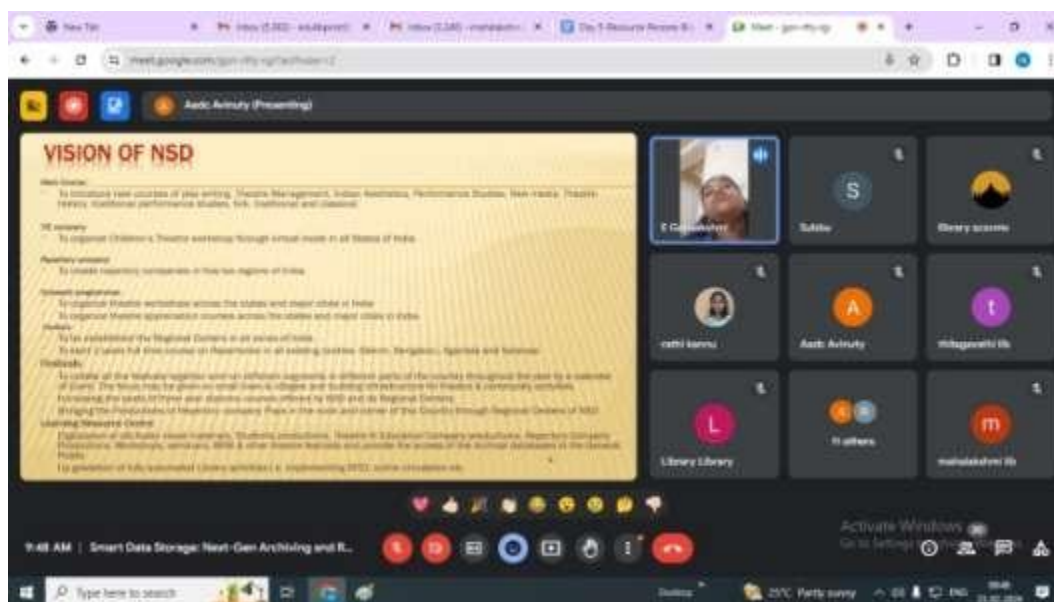
Day V Session I (23.02.2024; 9.30 am- 11.00 am)

Dr. E. Gajalakshmi, Librarian of the National School of Drama, Ministry of Culture, Govt. of India, handled a session on "The National School of Drama and its Archival Repositories - An Overview." She started the session with the major activities of NSD, courses offered, and outreach programmes organised by NSD, with particular emphasis on learning resource centres. She also spoke on the collection development of NSD Library, what are all the archiving activities they are undertaking, techniques for preserving the archival data for audio, video, negatives, and photographs, and the creation of metadata with emphasis on fields needed for archival of non-book materials, prerequisites needed for archival work and storage specification of storage medium.

She has also shown the demo of the NSD library portal (<https://nsd.gov.in/delhi/index.php/nsd-library/>), National Archives of India (<https://www.nationalarchives.nic.in/>), Indian Culture Portal (<https://indianculture.gov.in/join-us>) and the role of NSD and Ministry of Culture in preserving the rich cultural heritage of India.

Takeaway Messages

NSD and the Ministry of Culture have taken several initiatives to promote India's Rich cultural heritage
Voluminous work of NSD



Day V Session I NSD and its Archival Repositories - An Overview

Day V Session II (23.02.2024; 11.15 am- 12.45pm)

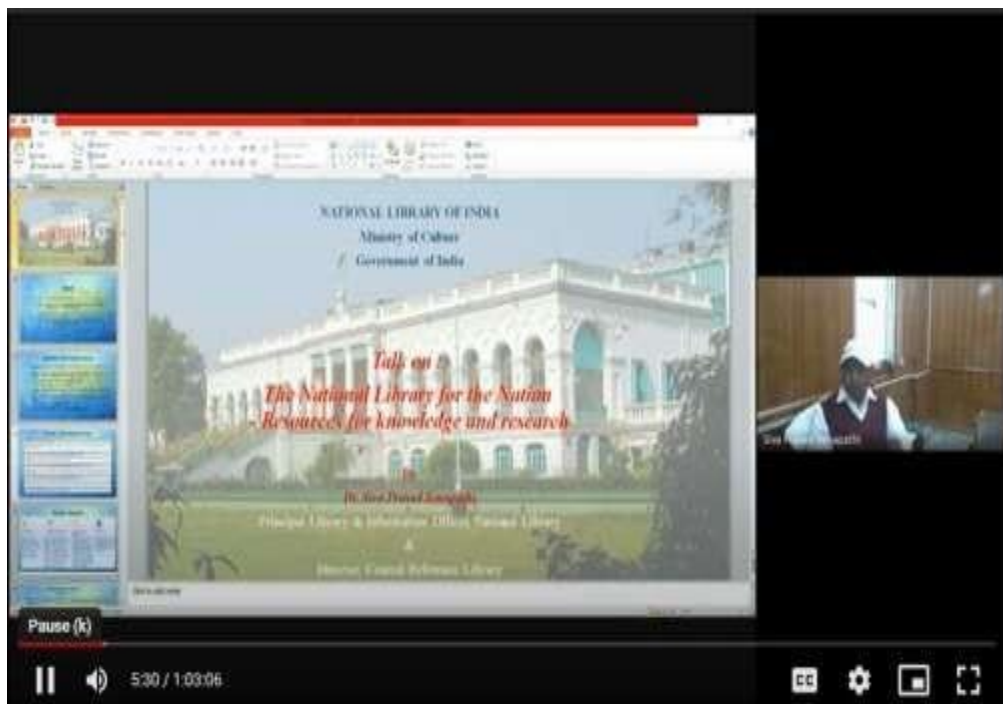
Dr.S.Siva Prasad Senapathi, Principal Library & Information Officer, National Library of India, Ministry of Culture, Govt. of India, Kolkata, handled a session on "The National Library of India: Resources for Knowledge and Research." He gave a detailed presentation on the origin of the National Library of India, its collection, and means of resource generation such as legal deposits, book orders, Gifts and exchanges, and most importantly, repositories.

He also touched upon the initiatives by the Ministry of Culture for the betterment of Libraries such as the Museum of Words, which exhibits the multilingual oral and written diversity of Indian languages, and the infrastructure development and upgradation, facilities for particular users and outreach for the Public libraries of India. In the future, they plan to add a service named "Bibliographic services on demand," a curated list of reliable sources based on user's demand. He has also shown NLI's archival activities in protecting the oldest newspapers, India's maps, and various microfilm collections. He is also concerned that the NLI is giving free services, and there are minimal takers.

Takeaway messages

National Library of India

Archival Activities of NLI



Day V Session III (23.02.2024; 01.30pm- 03.00pm)

“Copyright Issues in Data Archiving” was the topic handled by Dr. K. Elavazhagan, Librarian and Chief Knowledge Officer of the Indian Institute of Management, Tiruchirappalli. He clearly explained copyright, copyleft, and creative commons with live examples. While dealing with copyright, he touched upon fair dealing of material for academic purposes, common copyright infringements, and the basics of contract and licensing. He highlighted digital preservation initiatives such as LOCKSS (Lots of Copies Keep Staff Safe), CLOCKSS (Controlled Lots of Copies Keep Staff Safe), and PORTICO. While taking photocopies/ copies of documents for academic purposes, utmost care is to be taken. The following are the notable open content licenses: Creative Commons and Science Commons, which are tailored for scientific data and publications, and the GNU free documentation license, which Wikipedia uses. FAIR is a data sharing principle where F – Findable, – Accessible, I – Interoperable, and R- Reusable. Recently, with AI, the voices of famous playback singers who are no longer ale are cloned and have been used in recent films

Take away Messages

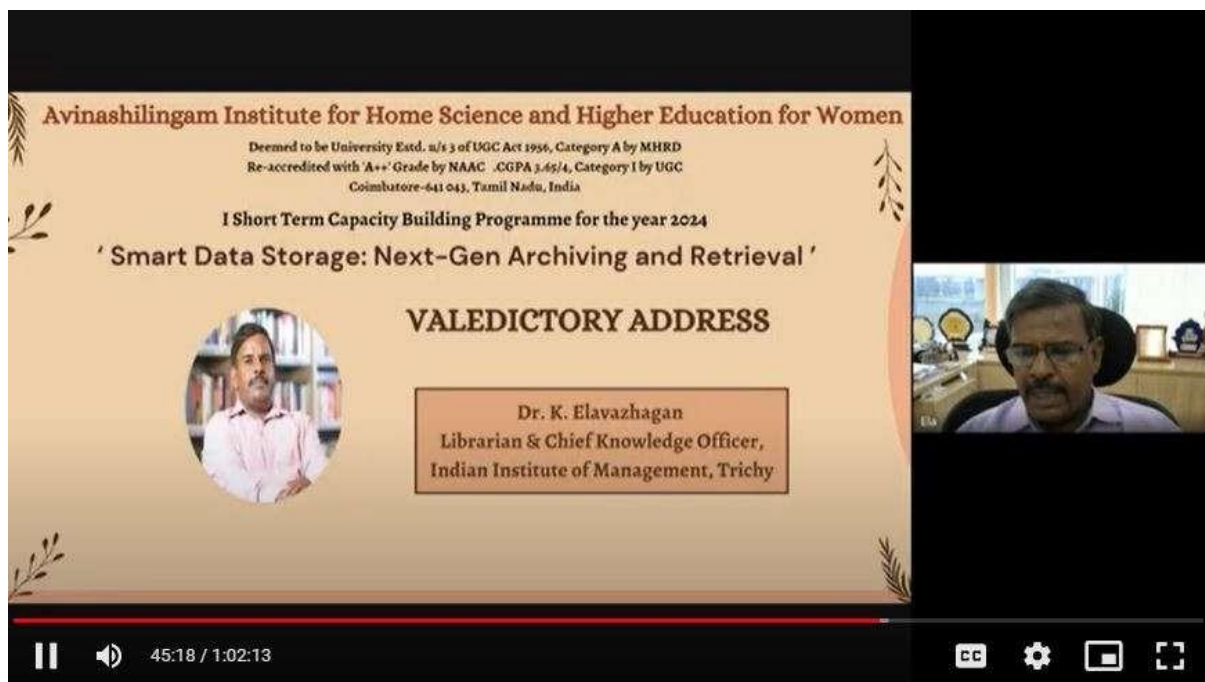
Clear explanation of copyright, copyleft and creative commons with live examples

Awareness about copyright infringement

Points to be taken care of while photocopying the material for academic purpose

Day V Session IV Valedictory (23.02.2024; 03.15pm- 04.30pm)

The session started with a prayer. Mrs. J. Geetha, Information Scientist and Organising Secretary, welcomed the gathering, followed by a brief overview of the programme by Dr K. Mahalakshmi, Assistant Librarian and Organising Secretary. The following participants were given positive feedback about the programme: Dr.Devika, Librarian of SCSVMV, Kanchipuram opined that it “loaded with more knowledge on smart data, archiving and copyright details.” Dr.Devendra, Professor & Principal, Maharishi Institute of Master Management, Bangalore shared that “it’s a refresher programme; not a short-term capacity building programme.” Dr.Madappa Mithra, IQAC Co-ordinator, St.Joseph’s University, Bangalore shared that “programme was an eye opener to him as he has come from Biotechnology background, versatility and clarity in all concepts covered in the programme.” The Vice-chancellor delivered the presidential address. Madam opined that there needs to be ease of retrieving the information. She is also concerned that human support is not possible with the technology and quantification of data. Dr. K. Elavazhagan, in his valedictory address, felt that there is a paradigm shift in the behaviour and attitude with the advent of industry 5.0 and present-day learners are using unstructured data for lifelong learning and it becomes a mandate because of fake information. Dr. T. Thilagavathi, Assistant Librarian and Programme Co-ordinator, proposed a vote of thanks, and the master of ceremony was done by Dr. K. Ramya, Nodal Officer, AIU-AI-AADC, Assistant Professor - SG, Business Administration.



Valedictory Address

Participants List

S.No	Name	Designation	Department	Institution/ Organisation Name
1	Dr. Jasper Jemima. G D	Assistant Professor	Economics	Margregorios College of Arts and Science
2	Mrs.Poongothai D	Research Scholar	Business Administration	Avinashlingam Institute for Home Science and Higher Education for Women
3	Dr. S. S. Devika	Librarian in charge	Library	Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya
4	Dr. Sanjay Gupta	Librarian	Central Library	Sant Longowal Institute of Engineering & Technology
5	Dr. Brinda Ramanujam	Associate Professor	Information Technology	M.O.P vaishnav college for women, chennai
6	Dr. S. Jayanthi	Assistant Professor	English	Meenakshi College for Women, chennai
7	Mr. Perumal G	Superintendent (library)	Library	IIITDM Kancheepuram, Chennai
8	Mr. Iqbal Ahmad nsari	Faculty Librarian, Gr-I	Central Library	Dayalbagh Educational Institute (Deemed to be University)
9	Mr. Gaurav Agrawal	Assistant University Librarian	Central Library	Dayalbagh Educational Institute Agra
10	Ms. Kiruthika Selvaraj	Lecturer	Public Health Nutrition	Public Health Foundation of India
11	Dr. M. Devendra	Principal & Professor	Tourism and Hospitality Management	Maharishi Insitute of Master Management
12	Dr. H.A Archana	Assistant Professor	Department of Agronomy	SRM College of Agricultural Sciences
13	Mr. Premkumar	University Librarian	University Central Library	St Joseph's (PPP) University, 36, Lalbagh Road, Bengaluru-560027, Karnataka, India.
14	Mr. Lokesh Suvarna	System Administrator	CCC	St. Joseph Engineering College
15	Mr. Binu P D	Research scholar	Managment	PMIST
16	Dr. Madappa Machamada Bheemaiah	Iqac Director	Biotechnology	St. Josephs University
17	Dr. B.Tina Sherin	Assistant professor	Computer science	Madras Christian college
18	S. Rathikannu	Assistant Professor	Agriculture	Karunya Institute of Technology and Sciences

Sample Certificate

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**AIU - Avinashilingam Institute - Academic & Administrative Development Centre (AIU-AI-AADC)
&
Central Library**

Certificate No: AIU - AI - AADC/ 2024 /01/007

CERTIFICATE OF PARTICIPATION

This is to certify that

Dr. M. Devendra

Principal & Professor, Department of Tourism and Hospitality Management
Maharishi Institute of Master Management, Bangalore

has participated in the Short-Term Capacity Building Programme on
“**Smart Data Storage: Next-Gen Archiving and Retrieval**” conducted by
AIU - Avinashilingam Institute - Academic & Administrative Development Centre (AIU - AI- AADC) & Central Library
from 19/02/2024 to 23/02/2024 and his performance was Excellent.

Dr. K. Ramya
Nodal Officer, AIU-AI-AADC

Dr. T. Thilagavathi
Programme Coordinator

Dr. Amarendra Pani
Joint Director & Head
Research Division, AIU

Dr. Pankaj Mittal
Secretary General
AIU

Dr. S. Kowsalya
Registrar
Avinashilingam Institute

Dr. V. Bharathi Harishankar
Vice Chancellor
Avinashilingam Institute

AIU-AI-AADC

First Short-Term Capacity Building Program on ‘Smart Data Storage: Next-Gen Archiving and Retrieval’

Date/Day	Session I 9.30 am to 11 am	Session II 11.15 am to 12.45 pm	Session III 1.30 pm to 3 pm	Session IV 3.15 pm to 4.45 pm
Day 1 19/02/2024 Monday Foundations of Smart Data Storage	Inauguration & Special Address Smart data storage in Higher Education Institutions. Prof. Devika Madalli, Director INFLIBNET	Best Practices in Data Archiving and Retrieving in HEIs Akhilak Ahmad, Ph.D. Library Associate, Centre for Women’s Development Studies Email : akhilak@cwds.ac.in	About our Library Dr.K.Mahalakshmi About the Library Demo of Library website Email: mahalakshmi_lib@avinuty.ac.in Mobile: 8610552991	Enhancing Research on Smart Data Storage with IEEE Publications Dr. Dhanukumar Pattanashetti, IEEE Client Services Email: d.pattanashetti@ieee.org Mobile :+91 97408 46076
Day 2 20/02/2024 Tuesday Modern Archiving Technologies	Artificial Intelligence in Libraries Nabi Hasan, PhD, PDF, FNEB, FSLA Librarian & Head, Central Library Indian Institute of Technology, Delhi. Email: hasan@library.iitd.ac.in hodlibrary@admin.iitd.ac.in Mobile: 9560978667	Open data and Research Data Management A.R.D. Prasad, Ph.D Former Professor and Head Documentation Research and Training Centre (DRTC) Indian Statistical Institute Email : ardprasad@gmail.com Mobile: +91-944 902 6528	Cloud Archiving Trends and Best Practices, Multi-cloud Strategies Dr. R.Karthikeyan Professor & Head, Department of Artificial Intelligence and Data Science,Dr.NGP Institute of Technology, Coimbatore Email: drkarthikeyan@drngpit.ac.in Mobile: 9092614159	Application of Blockchain in data Archiving Mr.Sadhrul Hudha A.H Software Engineer, NoviTech R &D Pvt Ltd., Sai Sruthi Complex, #2nd Floor, Ramar Koil Street, Ram Nagar, Cbe- 641 009. Email: novitech.blockchain@gmail.com Mobile: 8015777204

Date/Day	Session I 9.30 am to 11 am	Session II 11.15 am to 12.45 pm	Session III 1.30 pm to 3 pm	Session IV 3.15 pm to 4.45 pm
Day 3 21/02/2024 Wednesday Modern Archiving Technologies Continued	Collaborative Data Governance and Data Management committees Dr. R. Sevukan, Professor & Dean & Ms. Naseema S, Senior Research Fellow, Department of Library & Information Science, School of Media and Communications Pondicherry University Email :sevukan2002@yahoo.com Mobile: +91 9094082417	Big Data and Libraries: Opportunities and Challenges Dr. G. Rathinasababathy, Ph.D., University Librarian & CCPI, ICAR-NAHEP (IG) on NKMC4AER Tamil Nadu Veterinary and Animal Sciences University, Madhavaram Milk Colony, Chennai - 600 051. Email :librarian@tanuvas.org.in Mobile : 9840017397, 044 - 25551588	Importance of cyber security in Data Archiving Dr.S.Rajalakshmi, Professor, Department of Artificial Intelligence and Data Science,Dr.NGP Institute of technology, Coimbatore. Email:mrajislm@gmail.com Mobile: 9443337233	Data Visualisation and Web Scraping (XMind : Mind Mapping Tool) Dr.K.Ramasamy, College Librarian, M. V.Muthiah Government College for Women, Thadicombu Road, Meenachinayakanpatti, Dindigul. Email:ramasamymay1975@gmail.com Mobile: +91 8608943149
Day 4 22/02/2024 Thursday Advanced Retrieval Techniques	Metadata Formats for Effective Information Retrieval Mrs. Parvathi Bobby Patham Global Manager, Discovery & Discovery Services Springer Nature Email :pappaparvathi@hotmail.com Mobile:+1(973)580-7426	Artificial Intelligence in Data Retrieval - AI Based search algorithms Dr. J. Vivekavardhan, Professor/ University Librarian, Central University of Kerala. Email :drvivekavardhan@cukerala.ac.in Mobile : +91 9441300395	Digital Archiving: Roja Muthiah Research Library-A case study Mr.M. Manikanda Subbu, Assistant Director, Roja Muthiah Research Library, 3rd Cross Road, CPT Campus, Tharamani,Chennai. Email :subbu@rmrl.in Mobile : 9894453334	Basics of Next-Gen Archiving: Concepts and Principles Professor (Dr.) Ramesh C. Gaur, Dean (Administration), Professor & HoD Kalanidhi Division, Indira Gandhi National Centre for Arts (IGNCA), Email:rcgaur66@gmail.com, gaur@ignca.nic.in Mobile: +91 9810066244
Day 5 23/02/2024 Friday Integration and Future Perspectives	The National School of Drama and its Archival Repositories - An Overview Dr.E.Gajalakshmi, Librarian, National School of Drama, Ministry of Culture,Govt. of India, New Delhi. E-mail: gajanavani@gmail.com Mobile: +91 86972 10553	The National Library of India: Resources for Knowledge and Research Dr.S.Siva Prasad Senapathi, Principal Library & Information Officer, National Library of India, Ministry of Culture, Govt. of India,Kolkata. Mobile: +91 9748173855 E-mail: centralreferencelibrary@gmail.com	Copyright Issues in Data Archiving Dr.K.Elavazhagan Librarian & Chief Knowledge Officer,Indian Institute of Management, Trichy. E-mail:ela@iimtrichy.ac.in Mobile:+91 9789071310	Valediction and Feedback Dr.K.Elavazhagan Librarian & Chief Knowledge Officer, Indian Institute of Management, Trichy. E-mail:ela@iimtrichy.ac.in Mobile:+91 9789071310



Avinashilingam Institute for Home Science and Higher Education for Women



**AIU – Avinashilingam Institute –
Academic and Administrative Development Centre
(AIU-AI-AADC)**

&

Central Library

Jointly organizes

I Short Term Capacity Building Programme for the year 2024

on

**Smart Data Storage :
Next-Gen Archiving and Retrieval**

19.02.2024 to 23.02.2024

Mode : Online

**Invited Talks
Case Studies
Hands -on Sessions
Activities**



ABOUT THE INSTITUTE

Avinashilingam Institute for Home Science and Higher Education for Women - the epitome of higher education is one of the premier institutions in India well known for its commitment towards the empowerment of women through value based and holistic education. The institute follows educational ideals of Sri Ramakrishna, Holy Mother Sri Saradamani Devi, Swami Vivekananda and Mahatma Gandhiji. The institute is one of the significant contributions of Padma Bhushan, Dr. T. S. Avinashilingam, an illustrious educationist, freedom-fighter and Gandhian and Dr. Rajammal P. Devadas, the world- renowned nutritionist.

The Institute had its humble beginning in the year 1957 as Sri Avinashilingam Home Science College for Women and has been conferred the Deemed to be University by MHRD in 1988. Few of the recent accolades of the Institute includes: A++ with CGPA of 3.65/4 by NAAC; 81st Rank in NIRF, 5th Rank under the category of 'University & Deemed to be University (Govt. & Govt. Aided) Technical' in ARIIA - 2021.

Presently, the institution is progressing towards 'beyond-excellence' under the able guidance and leadership of Dr.T. S. K. Meenakshi Sundaram, Managing Trustee and Chancellor, Dr. V. Bharathi Harishankar, Vice Chancellor and Dr. S. Kowsalya, Registrar.



ABOUT THE ASSOCIATION OF INDIAN UNIVERSITIES

Association of Indian Universities (AIU) is an apex inter university representative body of universities and other higher education institutions in the country. Established in 1925 as the Inter University Board (IUB) of India, it acquired its legal status as a registered society in 1967 under the Societies Registration Act 1860 and was rechristened as Association of Indian Universities (AIU) in 1973. AIU is the second oldest university association in the world next to the Association of Commonwealth Universities which was established in 1913.

It has the distinct feature of having the largest network of universities and other HEIs under its ambit with 981 Members which includes 16 Associate Members of Foreign Countries. The membership of AIU includes all types of universities e.g., Conventional Universities, Open Universities, Deemed to be Universities, State Universities, Central Universities, Private Universities and Institutes of National Importance.

In addition to Indian Universities, Universities / Institutes from Bangladesh, Bhutan, Republic of Kazakhstan, Malaysia, Mauritius, Nepal, Thailand, United Arab Emirates and United Kingdom are its Associate Members. Since its inception AIU has played a very significant role in the development of Education in the Country.

Some of the eminent scholars and visionary leaders like Dr Sarvepalli Radhakrishnan, Dr Shyama Prasad Mukherjee, Dr Zakir Hussain, Sir. A L. Mudaliar have given leadership to AIU. During such a long journey, AIU has carved a niche for itself by serving the Ministry of Education, Govt. of India as a research-based policy advisory body. Being an apex institution, it constitutes an integral part of all major decision-making committees and commissions in the country.

As an academic 'think tank' organization, AIU supports the Government as research-based policy advisory body with the wider mandate of taking up research projects on higher education policy and capacity building. It also acts as a bureau of information on higher education; liaise with international bodies and universities for internationalization of Indian higher education among many others. The Vision of AIU is to emerge as a dynamic service and apex advisory organization in India by undertaking initiatives and programmes which could strengthen and popularize Indian higher education as leading-edge system in the world and promote greater national and international collaboration in Higher Education, Research, Extension, Sports, Youth and Cultural Activities.

It is bestowed with the mission of promoting and representing the Indian Universities and other higher education institutions through strong liaison with the government and National/International organizations, sister associations world over and establish liaison between/among universities through active support, cooperation and coordination among the member universities and all its stakeholders for quality education, research and other academics and extension activities.



ABOUT THE CENTRE

AIU–Avinashilingam Institute - Academic and Administrative Development Centre (AIU-AI-AADC) has been initiated by the institute in association with Association of Indian Universities (AIU) as a step towards training the human resources of higher education institutions. The specific objectives of the centre are:

- **Facilitate learning through Performance Improvement Programmes for different groups (Administrators/Teaching Faculty/Non-Teaching Research Scholars/Technical Personnel) towards progression based on their career stages.**
- **Enable continuous learning through rigorous need-based training sessions**
- **Sensitize stakeholders on recent developments in higher education system in the country and across the world.**
- **Equip academic / administrative / technical / information personnel with the requisite skills on ICT to handle their work effectively.**
- **Develop integrity and professional ethics among higher education personnel.**
- **Strengthen the human capital of the country with right attitude, skills, and knowledge**

VISION

To facilitate value-based transition towards changing higher education ecosystem through continuous capacity building.

MISSION

To impart ICT enabled training to human resources of higher education institutions thereby preparing themselves towards Education 5.0.





ABOUT THE PROGRAMME

- In an era dominated by an explosion of data, effective management and retrieval of information have become pivotal in various sectors. Higher Education Institutions (HEIs) manage vast and diverse data as a routine activity. Academic records, research findings, and administrative data represent just a fraction of the information that Higher Education Institutions grapple with daily. The necessity to organize, secure, and retrieve this information efficiently is critical for the seamless functioning of academic processes. To address the pressing challenges faced by institutions and the professionals responsible for managing data, we introduce the workshop on "Smart Data Storage: Next-Gen Archiving and Retrieval."

- Information scientists, particularly those in the role of librarians, are the stewards of knowledge repositories within HEIs. In an era where information is not just voluminous but also dynamic, the need for librarians to stay abreast of cutting-edge technologies is undeniable. This workshop provides a tailored approach for information scientists, equipping them with tools to navigate the complexities of smart data storage. Librarians will gain insights into advanced retrieval methods, cloud-based archiving, and big data integration, enabling them to optimize library systems and contribute significantly to the information infrastructure of their institutions.
- The workshop would also be beneficial for Professionals involved in data archiving and retrieval who shoulder the responsibility of ensuring the accessibility, integrity, and security of vast datasets. Participants will acquire practical skills and knowledge that empower them to implement advanced data management strategies, fostering efficiency and reliability in their roles.



- In essence, the workshop on "Smart Data Storage: Next-Gen Archiving and Retrieval" emerges as a transformative opportunity for Higher Education Institutions, data management professionals, and information scientists alike. By fostering a collaborative learning environment, the workshop aims to empower participants with the skills and knowledge needed to navigate the data-intensive landscape of modern education effectively.

OBJECTIVES

- Equip participants with a deep understanding of the latest innovations in smart data storage technologies.
- Enhance retrieval capabilities through advanced techniques for quick and accurate data access.
- Explore the benefits and best practices of leveraging cloud-based solutions for scalable and secure archiving.
- Provide strategies and tools for efficient management and archiving of large datasets in the educational context.
- Showcase real-world applications of smart data storage technologies through case studies and success stories.
- Tailor content to the specific needs of information scientists, focusing on advanced topics and specialized knowledge.
- Facilitate networking and collaboration, encouraging the exchange of best practices and community-driven problem-solving.



TARGET PARTICIPANTS

Information Scientists (Librarians) IT Professionals in Higher Education, Data Archivists and Managers, Researchers and Academics, Administrative Staff, Data Analysts and Scientists, Professionals in Information Management, Educational Technology Specialists, System Administrators, IQAC Personnel, Those Interested in Digital Transformation

Duration : 19.02.24 to 23.02.24

(5 Days Programme)

Time : 9:30 am to 4:45 pm



PROGRAMME SCHEDULE

Day 1: Date: 19.02.2024

Foundations of Smart Data Storage

- Smart data storage in higher education Institutions
- Best Practices in Data Archiving and Retrieving in HEIs
- Orientation Towards Institution library
- Enhancing Research on smart data storage with IEEE publications

Day 2: Date: 20.02.2024

Modern Archiving Technologies

- Artificial Intelligence in Libraries
- Open Data and Research data Management
- Cloud Archiving Trends and Best Practices, Multi-cloud Strategies
- Application of Blockchain in Data Archiving

Day 3: Date: 21.02.2024

Modern Archiving Technologies

- Collaborative Data Governance and Data Management committees
- Big Data and Libraries: Opportunities and Challenges
- Importance of cyber security in Data Archiving
- Data Visualisation and Web Scraping (XMind : Mind Mapping Tool)

Day 4: Date: 22.02.2024

Advanced Retrieval Techniques

- **Metadata Formats for Effective Information Retrieval.**
- **Artificial Intelligence in Data Retrieval- AI Based search algorithms**
- **Digital Archiving: Roja Muthiah Research Library-A case study**
- **Basics of Next-Gen Archiving: Concepts and Principles**

Day 5: Date: 23.02.2024

Integration and Future Perspectives

- **The National School of Drama and its Archival Repositories - An Overview**
- **The National Library of India: Resources for Knowledge and Research**
- **Copyright Issues in Data Archiving**
- **Best Practices in Data Archiving and Retrieving in HEIs**



LIST OF RESOURCE PERSONS

- **Prof. Devika Madalli**, Director, INFLIBNET.
- **Professor (Dr.) Ramesh C. Gaur**, Dean (Administration), Professor & HoD Kalanidhi Division, Indira Gandhi National Centre for Arts (IGNCA).
- **Dr. Nabi Hasan**, Librarian & Head, Central Library, Indian Institute of Technology, Delhi.
- **Dr. A.R.D. Prasad**, Former Professor and Head, Documentation Research and Training Centre (DRTC), Indian Statistical Institute.
- **Dr. J. Vivekavardhan**, Professor/ University Librarian, Central University of Kerala.
- **Dr. R. Sevukan**, Professor & Dean, and **Ms. Naseema S**, Senior Research Fellow, Department of Library & Information Science, School of Media and Communications, Pondicherry University.
- **Dr. K. Elavazhagan**, Librarian & Chief Knowledge Officer, Indian Institute of Management, Trichy.
- **Dr. G. Rathinasababathy**, University Librarian, Tamil Nadu Veterinary and Animal Sciences University, Chennai.
- **Mrs. Parvathi Bobby Patham**, Global Manager, Discovery & Discovery Services, Springer Nature.
- **Dr. E. Gajalakshmi**, Librarian, National School of Drama, Ministry of Culture, Govt. of India, New Delhi.
- **Dr. S. Siva Prasad Senapathi**, Principal Library & Information Officer, National Library of India, Ministry of Culture, Govt. of India, Kolkata
- **Dr. K. Ramasamy**, College Librarian, M.V. Muthiah Government Arts College for Women, Dindigul.
- **Dr. R. Karthikeyan**, Professor & Head, Department of Artificial Intelligence and Data Science, Dr. NGP Institute of Technology, Coimbatore.
- **Dr. S. Rajalakshmi**, Professor, Department of Artificial Intelligence and Data Science, Dr. NGP Institute of technology, Coimbatore.
- **Mr. M. Manikanda Subbu**, Assistant Director, Roja Muthiah Research Library, Chennai.
- **Dr. Dhanukumar Pattanashetti**, IEEE Client Services, Bengaluru, Karnataka.
- **Dr. Akhlaq Ahmed**, Library Associate, Centre for Women's Development Studies, Delhi.
- **Mr. Sadhrul Hudha A.H.**, Software Engineer, NoviTech R &D Pvt Ltd, Coimbatore.



REGISTRATION



REGISTRATION LINK :

<https://forms.gle/vRFNB9A6oi53RfvZ8>

REGISTRATION FEE

- Indian Participants Rs. 750
- International Participants USD 25

PAYMENT DETAILS

BANK ACCOUNT DETAILS

Account Name : **Avinashilingam Institute for Home Science and Higher Education for Women**

Name of the Bank : **Indian Bank**

Bank Account Number : **917248759**

IFSC Code : **IDIB000A005**

SWIFT Code : **IDIBINBBCBE**

AI ADVISORS

Dr. T. S. K. MEENAKSHISUNDARAM, Managing Trustee & Chancellor

Dr. V. BHARATHI HARISHANKAR, Vice Chancellor

Dr. S. KOWSALYA, Registrar

AIU ADVISORS

Dr. PANKAJ MITTAL, Secretary General, AIU

Dr. AMARENDRA PANI, Joint Director & Head, Research Division, AIU

PROGRAMME COORDINATOR

Dr. (Mrs.) T. THILAGAVATHI, Assistant Librarian (SG) ,
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ORGANIZING SECRETARIES

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Mrs. J. GEETHA, Information Scientist
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REACH US AT

Dr. K. RAMYA

Nodal Officer

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Special thanks to:

AI Advisors

- **Dr. T. S. K. Meenakshisundaram, Managing Trustee & Chancellor**
- **Dr. V. Bharathi Harishankar, Vice Chancellor**
- **Dr. S. Kowsalya, Registrar**

AIU Advisors

- **Dr. Pankaj Mittal, Secretary General, AIU**
- **Dr. Amarendra Pani, Joint Director & Head, Research Division, AIU**

We extend our heartfelt gratitude to all the Invited Guests, Resource Persons, HEI's, Coordinators, Committee Members, Technical staff for their unwavering support!

We sincerely thank each attendee for their participation and enthusiasm!

Welcoming you all again in the future!



Dr. K. Ramya

Nodal Officer, AIU-AI-AADC

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