



"Future-Ready Campus Libraries Unifying Systems & Expanding Access"

Compiled By
Knowledge Resource Centre
Centre of Excellence



Purpose

Library automation plays a crucial role in enhancing resource accessibility, operational efficiency, and research support in academic institutions. As global best practices evolve, it is essential to assess our campus library automation level and align it with leading national and international university libraries.

Section 1

Consolidated Campus Library Automation Status Report

*An Overview of Library Automation & Resource
Management Across Schools*

Introduction

This section summarizes the automation status and resources of libraries across different schools.

Key aspects include:

- Use of Library Management Software
- Implementation of Barcoding
- Availability of E-Library Resources
- Stock Verification Processes
- Overdue & Lost Book Policies
- Best Practices Adopted

Reasoning and Process Steps for Evaluation

Detailed reasoning for each maturity level

- Criteria for automation processes.
- Tools and technologies used.
- Features and challenges specific to each stage.

Steps taken to evaluate each library's automation stage:

- Data collection from each library.
- Analysis of current systems and tools used.
- Assessment of automation processes in place.



Library-Specific Automation & Resources

Library 1: School of Medicine

Software Used: SLIM21

Automation Processes: Automated cataloging, circulation, and reporting through SLIM21.

E-Library Mechanism: Access to physical and digital resources via Web OPAC.

Web-based Library Automation

Library 2: School of Dentistry

Software Used: SLIM21

Automation Processes: Automated cataloging, circulation, and stock verification.

E-Library Mechanism: Access to e-resources through Web OPAC and QR codes.

Web-based Library Automation

Library 3: School of Physiotherapy

Software Used: SLIM21 (Collaborated with the School of Medicine, D. Y. Patil University)

Automation Processes: Basic automation for cataloging and circulation.

E-Library Mechanism: Access to digital resources through ProQuest Database.

Networked Library System

Library 4: Ramrao Adik Institute of Technology (RAIT)

Software Used: SLIM21

Automation Processes: Automated cataloging, circulation, and stock verification with barcode integration.

E-Library Mechanism: Access to digital resources through various databases.

Web-based Library Automation

Library 5: School of Management

Software Used: iSLIM

Automation Processes: Automated cataloging, circulation, and physical stock verification.

E-Library Mechanism: Integration with online databases and e-resources.

Web-based Library Automation

Library 6: School of Pharmacy

Software Used: Koha

Automation Processes: Automated cataloging and circulation.

E-Library Mechanism: Access to e-resources through multiple databases.

Web-based Library Automation

Library 7: School of Architecture

Software Used: E-Granthalaya

Automation Processes: Basic cataloging and circulation.

E-Library Mechanism: Access to digital resources through K-hub.

Networked Library System

Library 8: School of Ayurveda

Software Used: SLIM21

Automation Processes: Basic cataloging and circulation.

E-Library Mechanism: Access to digital resources through various platforms.

Networked Library System

Library 9: School of Hospitality & Tourism Studies

Software Used: Koha

Automation Processes: Automated cataloging, circulation, and barcode generation.

E-Library Mechanism: Subscription to e-resources for users.

Web-based Library Automation

Library 10: COE-KRC

Software Used: iSLIM and TCSION

Automation Processes: RFID-based stock verification, automated cataloging, and circulation.

E-Library Mechanism: Digital library section with access to multiple databases.

Web-based Library Automation

Library 1: School of Medicine

Software Used: SLIM21

Automation Processes:
Automated cataloging, circulation,
and reporting through SLIM21.

E-Library Mechanism: Access to
physical and digital resources via
Web OPAC.

Web-based Library Automation

Library Resources:

- Books: 16,463
- Journals: 100
- eBooks: 250
- eJournals: 2,551
- Newspapers: 4

Best Practices:

- Automated transaction emails and overdue reminders
- Easy barcode printing for efficient inventory management
- Web OPAC for searching, checking availability, reservations, reissues, overdue tracking, and fine viewing

Library 2: School of Dentistry

Software Used: SLIM21

Automation Processes:
Automated cataloging, circulation,
and stock verification.

Book Barcoding and Issuance:
Integrated with SLIM21 using
smart cards.

E-Library Mechanism: Access to
e-resources through Web OPAC
and QR codes.

**Stage: Third Generation -
Web-based Library Automation**

Mapping Library Maturity Status

Library 2: School of Dentistry

Software Used: SLIM21

Automation Processes:
Automated cataloging, circulation,
and stock verification.

E-Library Mechanism: Access to
e-resources through Web OPAC
and QR codes.

Web-based Library Automation

Library Resources:

- Books: 5,427
- Journals: 28
- eBooks: 3,347
- eJournals: 556
- Newspapers: 5

Best Practices:

- Visitors log to track library usage
- Automated registration emails and recent arrivals notifications
- Institutional repository for digital resources
- Automated overdue reminders

Library 3: School of Physio

Software Used: SLIM21
(Collaborated with the
School of Medicine, D. Y. Patil

Automation Processes:
automation for cataloging,
circulation, and stock verification.

E-Library Mechanism: Access to
digital resources through
ProQuest Database

**Stage: Second Generation
Networked Library**

Mapping Library Maturity Status

Library 3: School of Physiotherapy

Software Used: SLIM21
(Collaborated with the School of
Medicine, D. Y. Patil University)

Automation Processes: Basic
automation for cataloging and
circulation.

E-Library Mechanism: Access to
digital resources through
ProQuest Database.

Networked Library System

Library Resources:

- Books: 2,223
- Journals: 7
- eBooks & eJournals: Access provided through ProQuest Database

Best Practices:

- Maintains a collection of the latest editions of various specialty-wise books and journals

Library 4: Ramrao Adik Institute of Technology (RAIT)

Software Used: SLIM21

Automation Processes: Automated cataloging, circulation and stock verification with barcode integration.

E-Library Mechanism: Access to digital resources through various databases.

**Stage: Third Generation -
based Library Automation**

Mapping Library Maturity Status

Library 4: Ramrao Adik Institute of Technology (RAIT)

Software Used: SLIM21

Automation Processes:
Automated cataloging, circulation,
and stock verification with barcode
integration.

E-Library Mechanism: Access to
digital resources through various
databases.

Web-based Library Automation

Library Resources:

- Books: 50,455
- Print Journals: 66
- eBooks: 5,382
- eJournals: 853
- Print Magazines: 13

Best Practices:

- New arrivals (books & journals) emailed to HODs, who forward the information to faculty and students
- Open access system and Web OPAC
- Computer systems with internet access for digital resources
- QR codes for quick access to question papers and eJournals
- Regular book exhibitions and library orientation programs
- Institutional repository

Library DYPUS

Software Used:

Automation Pro
Automated cataloging
and physical stock

E-Library Mech
Integration with online
and e-resour

Stage: Third Genera
based Library Au

Mapping Library Maturity Status

Library 5: School of Management

Software Used: iSLIM

Automation Processes:
Automated cataloging, circulation,
and physical stock verification.

E-Library Mechanism:
Integration with online databases
and e-resources.

Web-based Library Automation

Library Resources:

- Books: 9,931
- Journals: 28
- Magazines: 8
- Newspapers: 8

Best Practices:

- Regular user feedback surveys
- Information literacy training sessions
- Collaboration with faculty on research support
- Digitization projects for archival materials

Library 6: School of Pharmacy

Software Used:

Automation Processes:
Automated cataloging,
circulation.

E-Library Mechanism:
e-resources through
databases.

**Stage: Third Generation
Web-based Library Automation**

Mapping Library Maturity Status

Library 6: School of Pharmacy

Software Used: Koha

Automation Processes:
Automated cataloging and circulation.

E-Library Mechanism: Access to e-resources through multiple databases.

Web-based Library Automation

Library Resources:

- Books: 5,547 volumes
- Journals & Magazines: 28
- eBooks & eJournals: Access provided through DELNET Database, ProQuest Database, and Caliber e-books
- Newspapers: 2

Best Practices:

- Book Bank facility for Academic Week students

Library 7: School of Architect

Software Used: E-Grantha

Automation Processes: E-
cataloging and circulation

E-Library Mechanism: Access to
digital resources through K-

**Stage: Second Generation
Networked Library System**

Mapping Library Maturity Status

Library 7: School of Architecture

Software Used: E-Granthalaya

Automation Processes: Basic cataloging and circulation.

E-Library Mechanism: Access to digital resources through K-hub.

Networked Library System

Library Resources:

- Books: 6,988
- Titles: 5,170
- Reference: 1,632
- eBooks: 2,774 (via K-hub)
- eJournals: 1,201 (via K-hub)
- Research Projects: 133
- Journals: 31
- Newspapers: 3

Best Practices:

- Use of E-Granthalaya for efficient management
- Barcode-based circulation system
- Subscription to digital resources through K-hub

Library 8: School of Ayurveda

Software Used: SLIM21

Automation Processes: Basic cataloging and circulation.

E-Library Mechanism: Access to digital resources through various platforms.

Stage: Second Generation - Networked Library System

Mapping Library Maturity Status

Library 8: School of Ayurveda

Software Used: SLIM21

Automation Processes: Basic cataloging and circulation.

E-Library Mechanism: Access to digital resources through various platforms.

Networked Library System

Library Resources:

- **Total Collection: 12,541**
 - Ayurvedic Books: 9,954
 - Modern Books: 1,993
 - Other Books: 594
- **Journals & Magazines: 40**
- **eBooks: 300**
- **eJournals: 88**
- **Newspapers: 9**

Best Practices:

- Maintains extensive collections of Ayurvedic and modern medical books and journals
- Provides free downloads for eBooks and eJournals

Mapping Library Maturity Status

Library 9: School of Hospitality & Tourism Studies

Software Used: Koha

Automation Processes:
Automated cataloging, circulation,
and barcode generation.

E-Library Mechanism:
Subscription to e-resources for
users.

Web-based Library Automation

Library Resources:

- Books: 4,287
- Journals: 5
- Magazines: 13
- Newspapers: 6

Best Practices:

- Barcode Generation System for Books
- Digital Library Facility
- Online Access to e-Resources (e-Journals & e-Books)
- e-Resources Access Through an Authenticated IP
- Open Access System for Library Users
- Conducting Books Exhibition
- Annual Best User Award for Students & Staff
- Conducting User Surveys Periodically
- Library Orientation/Information Literacy Programme
- Displaying Newspaper Clippings on the Notice Board Periodically

Library 10: COE-KRC

Software Used: iSLIM and
TCSiON

Automation Processes: RFID
based stock verification,
automated cataloging, and
circulation.

E-Library Mechanism: Digital
library section with access
multiple databases.

**Stage: Third Generation - V
based Library Automation**

Mapping Library Maturity Status

Library 10: COE-KRC

Software Used: iSLIM and
TCSION

Automation Processes: RFID-
based stock verification,
automated cataloging, and
circulation.

E-Library Mechanism: Digital
library section with access to
multiple databases.

Web-based Library Automation

Library Resources:

- **Total Book Collection: 10,285**
- VPSM: 2,594
- Law: 1,534
- Creative Studies: 160
- Public Health: 112
- Medicine: 702
- RAIT: 1,134
- Dentistry: 918
- Ayurveda: 778
- Physiotherapy: 267
- Pharmacy: 300
- HMCT: 313
- Architecture: 387
- Business Management: 260
- Nursing: 107
- OT: 109
- Biotechnology: 610
- **Journals: 5**
- **Magazines: 6**
- **Newspapers: 8**

Best Practices:

- Library iOPAC through iSLIM
- Daily Newspaper Clippings categorized by topics and shared with faculty
- Library Orientation Sessions for students and faculty
- New Arrivals Notification shared with departments
- Bookshelf Signage System proposed for easy location of books
- Journal Article Indexing and circulation to departments
- High-Priced Books Identification with a color-coded system
- Collaborative projects with departments to support research and specialized collections

Library Automation Overview

Library Management Systems:

- Majority use SLIM21 or ISLIM.
- Some use Koha, E-Granthalaya, or TCSION.

Barcoding:

- Standard across all libraries.

E-Library Access:

- Digital resources, e-books, and e-journals available in varying capacities.

Stock Verification:

- Conducted annually or biannually.
- Uses automated and manual methods.

Overdue & Lost Books:

- Automated tracking.
- Fines and replacement policies in place.

Best Practices:

- New arrival notifications.
- Library orientation programs.
- Open access systems.
- Departmental collaborations.

Section 2

Top National Universities

NIRF Ranking 2024.

Benchmarking with Top National University Libraries

Comparison Based on Top 3 Indian Universities (NIRF Ranking 2024)

- **Indian Institute of Science (IISc)**
 - J.R.D. Tata Memorial Library
 - Location: Bangalore
- **Manipal Academy of Higher Education**
 - MAHE Library
 - Location: Bangalore
- **Jamia Millia Islamia**
 - Dr. Zakir Husain Central Library
 - Location: New Delhi

RANK	UNIVERSITY	SCORE
1	Indian Institute of Science, Bengaluru	83.29
2	Jawaharlal Nehru University	69.80
3	Jamia Millia Islamia	68.11
4	Manipal Academy of Higher Education, Manipal	67.18
5	Banaras Hindu University	66.05

Study Focus

- **Purpose:**
 - Analyse technological adoption and service efficiency.
 - Data sourced from respective library websites.
- **Key Focus Areas:**
 - Library Automation & Software
 - Digital Repositories & Open Access
 - Remote Access & E-Resources
 - RFID & Smart Library Technologies
 - AI-Powered Research Support & User Services
- **Outcome:**
 - Identify gaps and areas for improvement to enhance library services.

1. Indian Institute of Science (IISc)–J.R.D. Tata Memorial Library, Bangalore

Automation

- Uses KOHA for automation, covering acquisitions, cataloging, circulation, and serials control.

Institutional Repository

- Maintains an institutional repository via DSpace.
- Provides open-access research papers, dissertations, and theses.

Off-Campus Access

- Available to current faculty members and students.
- Access to subscribed online journals and databases via Single Sign-on (SSO), without a VPN connection.

RFID Technologies

- Implements RFID-enabled self-checkout, book drop, and security systems.

AI-Based Research Tools

- Uses AI-based research tools for literature reviews and citation management.
- Examples include EndNote and Mendeley.

2. Manipal Academy of Higher Education Library

Integrated Library Management System (ILMS)

- Uses KOHA for ILMS, enabling OPAC, circulation, and resource discovery.

Institutional Repository

- Maintains e-theses and research publications via DSpace.
- Institutional repository on research & scholarship using Digital Commons.

Database Subscriptions

- Subscribes to Scopus, Web of Science, PubMed, ProQuest, Elsevier, and many more databases.
- Accessible through Open Athens remote login.

Research Tools

- Grammarly
- Turnitin
- Endnote
- Impression@MAHE

3. Jamia Millia Islamia-Dr Zakir Husain Central Library

Library Management & Automation:

- Uses KOHA for cataloging, circulation, and OPAC services.
- Provides interlibrary loan (ILL) services.

Digital Repositories & Online Access:

- Digital repository managed via DSpace for theses, dissertations, and faculty publications.
- Provides access to online journals and databases.

Academic Integrity & Research Support:

- Uses Turnitin and URKUND for academic integrity and plagiarism checks.
- Research Support: Quillbot Writing Platform for AI-powered paraphrasing and grammar-checking tools.

Accessibility & Support Services:

- Offers assistive technologies, digital resources, and accessible study spaces for students with disabilities.
- Provides scanning, digitization, and access to e-documents for research and study purposes.

Key Technological Services Compared

- Library Management Systems (LMS)
- Institutional Repository
- Remote Access to E-Resources
- RFID Technology
- E-Resources & Databases
- Plagiarism Detection Tools
- Digital Services
- Interlibrary Loan (ILL)
- Support for Disabled Students

Section 3

Gap Analysis & Recommendations

Key Gaps Identified

Library Catalogue & Repository

- Lack of centralised library catalogue.
- Lack of a centralized repository for research output.

Access & Technology Implementation

- Limited implementation of VPN/Shibboleth for off-campus access.
- RFID Technology – Only partially implemented, unlike IISc's full self-checkout and security system.

Academic Integrity & Research Tools

- Limited access to Turnitin through R & D department.
- Need for broader implementation of research tools (Endnote, Mendeley, Grammarly, etc).
- Need for AI-driven research assistance tools.

Resource Sharing & Accessibility

- Interlibrary Loan (ILL) – Lack of structured resource-sharing system.
- Need for broader and unified e-resource subscriptions.
- Need for specialized digital resources or assistive technology for disabled students, as per the strength.

Key Recommendations for Immediate Implementation

- **Priority 1. Uniform Library LMS Across All Schools – "One Campus, One Library Platform"**
 - Standardise the Library Management System (LMS) across all schools within the university.
 - Migrate existing data from individual schools to the new system
 - Provide training to staff and users for smooth transition.
- **Priority 2. Remote Access to Resources – OpenAthens or Other Discovery Tools**
 - Implement OpenAthens, EZproxy, or Shibboleth for seamless off-campus access.
 - Integrate it with the unified LMS for a single sign-on experience.
- **Priority 3. Subscription to Essential E-Resources**
 - Expand access to scholarly content for students and researchers with subscription to key databases
 - Enable campus-wide and remote access through the discovery tool.
 - Organize training sessions on maximizing e-resource usage.
- **Priority 4. RFID Implementation for Library Automation**
 - Integration with LMS
 - RFID tagging of books and materials for circulation and tracking.
 - Installation self-checkout kiosks, book drop boxes, and anti-theft gates in priority locations.

Estimated Budget

A comprehensive assessment of the exact needs of each school will guide the final budget allocation to ensure it aligns with the goals and objectives of the initiative. The budget component shall include the following:

Technology Infrastructure & Systems

- Technology infrastructure
- Library management system upgrade
- Institutional repository
- RFID implementation
- Remote access system
- Research support tools

Digital & Physical Resources

- Digital & physical resources
- Databases
- Software
- E-journals
- E-books

Staffing & Training

- IT & tech support staff
- Training for students, faculty, librarians, and staff
- Data entry

Infrastructure & Maintenance

- Infrastructure and maintenance
- Hardware upgrades
- Library space optimization
- Annual maintenance & support

*"A Well-Automated Library is the Foundation of a
Smarter Academic Ecosystem!"*

Thank You!