

Library Automation of JES College: A Study

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Abstract

This study examines the status of library automation at JES College, utilizing a case study approach. Data was collected from all available sources to ensure a comprehensive analysis. The research highlights the significant impact of the evolving Information and Communication Technology (ICT) landscape on library operations, resources, services, personnel, and users. Notably, the study underscores the numerous advantages of automated systems compared to traditional manual processes.

INTRODUCTION:

This paper highlights the JES College of Arts, Commerce & Science's library automation status. Throughout the conception of this study, efforts were made to collect the necessary data from all available sources. However, the case study method is used to study this subject. It has been found that the library's operations, resources, services, personnel, and users are all significantly impacted by the evolving ICT environment. There are many benefits to automated processes over manual ones.

Scope of the Study:

The research solely looks upon SOUL 3.0 SOFTWARE automation at the JES Arts, Commerce & Science Library in Jalna.

Library Automation in JES College Library:

Library automation work in JES library started in the year 2004. The library is automated with SOUL 3.0. The SOUL library software converted traditional library into E-library. The automation process in progress for the entire main library of the institute.

JES College of Arts, Commerce & Science, Jalna: A Profile

JES College, Jalna, is a distinguished institution of higher learning managed by the Jalna Education Society Affiliated with Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, the college has established itself as a prominent educational center within the Marathwada region since its founding in 1957.

The college provides a comprehensive range of undergraduate and postgraduate programs across the faculties of Arts, Commerce, and Science, effectively blending traditional academic disciplines with contemporary fields of study. Recognizing the importance of research, JES College also offers robust Ph.D. and research facilities in various subjects, including Physics, Chemistry, Botany, Zoology, Economics, and Hindi. This commitment to both teaching and research solidifies JES College's position as a leading center for higher education in the region.

Background of the JES College Library

The foundation stone for the JES College Library building was laid on July 27, 1984, marking the beginning of a vital resource for the institution's academic community. Recognizing the pivotal role of a library in higher education, the college has consistently strived to expand access to knowledge and information for both faculty and students.

The library has focused on both the quantitative and qualitative development of its resources and services. To enhance accessibility, it participates in interlibrary loan programs and utilizes digital resources through affiliations with INFLIBNET, N-List, and the Dr. Babasaheb Ambedkar Marathwada University Library consortia. The library's operations are streamlined through a computerized system, incorporating barcode-based book circulation and library membership cards.

Adhering to the fifth law of library science, "The library is a growing organism," the JES College Library continuously expands its holdings. Currently, the library boasts a collection of over 85,000 print books, access to more than 13,472,570 e-books, subscriptions to 70 print periodicals, and access to over 52,353 online journals, alongside a diverse array of other informative materials.

Library Staff:

The JES College of Arts, Commerce & Science Library is supported by a dedicated team of qualified professional and non-professional staff.

Library Services:

JES College Library is providing the following services to its users.

- Circulation.
- Current Awareness Service.
- Selective Dissemination Service.
- Audio-Visual service.
- News Paper Clipping Service.
- OPAC (Online Public Access Catalogue)
- Interlibrary Loan.
- Institutional Repository.
- Internet facility for students & Staff.
- Open Reading Room.
- Computerization of books with barcode.

- Separate reading room for teaching staff, boys & girls students.
- Unique reference books collection in the Library.

The library has Various E-Resources / Consortia.

- Link: 1. <http://jesjalna.org/nlist.html>
2. <http://jesjalna.org/delnet.html>
3. <http://jesjalna.org/Eresources.html>

Concept of Library Automation

In simple terms, library automation refers to the use of computers and computer-based products and services to carry out various library operations and activities. Automation refers to a greater level of mechanisation in which machines undertake routine and repetitive tasks or operations with little or no human intervention.

Why Automation?

In today's world, workload has increased tremendously as a result of ever-changing technology, and information must be searched out in fractions of seconds; even decision-making tasks must be performed within a certain amount of time. Automation enables library functions such as acquisition control, serial control, cataloguing, and circulation control to be performed in a matter of seconds and with the click of a single tab. It has also aided in the evaluation and advancement of library personnel. Since the introduction of automation, library administration has been running well.

Methodology of Automation:

The present study is confined to automation of JES College of Arts, Commerce & Science College Library.

Status of Library Automation:

JES College of Arts, Commerce & Science distinguishes itself as a leading institution in the Marathwada region by providing comprehensive computerized library services. Initiated in 2013, the library's computerization has resulted in a robust database encompassing over 38,572 books.

The library offers extensive online resources, including access to N-List and e-journals through the Dr. Babasaheb Ambedkar Marathwada University Library consortium. The Online Public Access Catalog (OPAC) facilitates efficient online searches of the library's database by author, title, keywords, and accession numbers, significantly enhancing reference services for both staff and students. JES College Library is fully automated using SOUL 3.0, state-of-the-art integrated library management software developed by the INFLIBNET Centre. This user-friendly software, designed for client-server environments, adheres to international standards such as MARC 21, Unicode, NCIP 2.0, and SIP 2, ensuring compatibility and efficiency. The library's holdings are fully automated and bar-coded, providing streamlined services to all users. OPAC is readily accessible, and the software manages over 8,229 membership records. The library maintains an up-to-date collection of diverse materials, including books, bound volumes, reference books, and textbooks, supporting the academic needs of the college community.



Fig.01 SOUL 3.0

Major Features of SOUL3.0 Software are as follows:

- UNICODE based multilingual support for Indian and foreign languages;
- Compliant to International Standards such as MARC21, AACR-2, MARCXML;
- Compliant to NCIP 2.0 protocol for RFID and other related applications especially for electronic surveillance and self check-out & check-in;
- Client-server based architecture, user-friendly interface that does not require extensive training;
- Supports cataloguing of electronic resources such as e-journals, e-books, virtually any

type of material;

- Supports requirements of digital library and facilitate link to full-text articles and other digital objects;
- Support online copy cataloguing from MARC21 supported bibliographic database;
- Provides default templates for data entry of different type of documents. User can also customize their own data entry templates for different type of documents;
- Provides freedom to users for generating reports of their choice and format along with template and query parameters;
- Supports ground-level practical requirements of the libraries such as stock verification, book bank, vigorous maintenance functions, transaction level enhanced security, etc.;
- Provides facility to send reports through e-mail, allows users to save the reports in various formats such as Word, PDF, Excel, MARCXML, etc.;
- Highly versatile and user-friendly OPAC with simple and advanced search. OPAC users can export their search results in to PDF, MS Excel, and MARCXML format;
- Supports authority files of personal name, corporate body, subject headings and series name;
- Supports data exchange through ISO-2709 standard;
- Provides simple budgeting system and single window operation for all major circulation functions;
- Strong region-wise support for maintenance through regional coordinators. Strong online and offline support by e-mail, chat and through dedicated telephone line during office hours.

The SOUL 3.0 consists of the following modules.

Each module has further been divided into sub modules to cater to functional requirement of libraries:

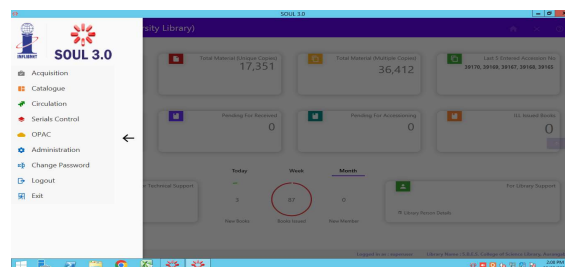


Fig.02 SOUL 3.0 Modules

Acquisition Module: The Library Acquires resources based on suggestions/recommendations made by its user's faculty/library committee members/students. Main task of the LIS staff is to input the suggestions/recommendations received, into the system along with the name of the person who has requested for. This helps the librarian to inform the requester as soon as the suggested item is added in the library or its current status. The Soul Acquisition module provides a way for the library to record orders placed with vendors and manage purchase budgets. Acquisition Module facilitates automating the process of ordering, receipt, payment and budget control. The module enables library staff to handle all major functions related to acquisition, such as

- Request
- Gratis Item
- Select For Approval
- Approval Process
- Direct Approval
- Letter Of Approval

Catalogue Module: Cataloguing is the most important module of the LMS from the point of view of retrieval of information. In soul 3.0 bibliographic details such as Title, Author, Publisher, Edition and ISBN etc are able to enter in marc21 format. Once this information saved record is generated. It is also compliant to international standards such as AACR-2, Marcxml. Records can be added using online copy cataloguing. Using Catalogue module user can add bibliographic and authority records in the library catalog, the database of books, serials, sound recordings, moving images, cartographic materials, computer files, CD/DVDs, e-resources etc. that are owned by a library.

Functionalities of Catalogue Module

1. Cataloguing

- Title in Progress

- Data Operation
-

2. Import/Export

- Import from MARC
- Export to MARC
- CCF to MARC
- Export to MARC
- Add Accession No. To Imported Data
- MARCXML to SOUL

3. User Services

- Current Awareness
- Bibliographic Service

4. Reports

- Basic
- Advanced
- Spine Label
- Book Card
- Catalogue Card

Circulation Module: Circulation is core module of an automated library system. The Library holdings are completely automated and bar coded which cater services to all users. The Circulation module allows us to create/edit/delete/search User records, renew membership and also establish relationship between the user and resources by creating transaction records (Issue/Return/Renew), Reserve the item(s), issue the item on ILL, Book bank transaction facility and get number of routine reports and some management reports. The module deals with all operation related to library members i.e creation, deletion and modification of members. Apart from this user may copy an existing membership record update it with a new membership code. User can search membership records by using the option search member by using different searching parameter such as code, name, department, designation, entry date, category and if user want to delete any member that there are two options to delete membership record, either single member or Group member deletion. Membership renewal can be also done using this module. Member barcode and member card is also generated in this module. After completion of academic course user can issue no - dues to the students/members in bulk as well as in individual

Functionalities of Circulation Module:

- Transaction process of material
- Book Bank Issue/Return
- Group Issue/Return
- Member login/logout facility
- Stock verification
- Inter Library Loan (ILL)

Serial Control: Serial control module of soul 3.0 provides streamline access to the users from Title entry to schedule generation and receiving order. It offers easy creation and maintenance of Article indexing database and thereby help in providing the services according to the user's need. All the serial titles (mainly those which are subscribed to by the Library), in all the formats (like print, electronic, CD-ROMs, online etc) are entered into the database in MARC21 format.

The Serials Control module has following sub modules.

- Titles(Serials)
- Suggestions
- Subscription
- Payment
- Check-in
- Commercial Binding
- In-House Binding

OPAC: One of the major attractions of SOUL 3.0 is its robust On-line public Access Catalogue (OPAC). The OPAC has simple and advanced search facility with the minimum information for each item including author, title, corporate body, conference name, subject headings, keywords, class number, series name, accession number or combination of any of two or more information regarding the item.

Major Functions provided in the OPAC module are:

- Simple Search
- Boolean Search
- Advanced Boolean Search
- Displaying and Downloading of records in MS Excel, PDF or MARCXML

- Search support for the items that are in the acquisition process in the library.

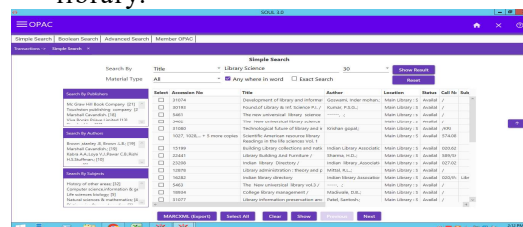


Fig.03 SOUL 3.0 OPAC Module

➤ **Administration module:** In addition to the features available in the Administration Module of the Soul 2.0, some more features have been added to this module of the SOUL 3.0 as per the inputs from the various SOUL users and requirements of the library staff. The module has been divided into three major sub modules for accommodating the new features. These three sub-modules are User Management, System Parameters and Masters.

The Administration module provides the following:

- Grouping of users based on the policy
- Transactional rights over the systems
- Transaction level security to users
- Various configuration settings such as labels, e-mail and other parameters related to the software use
- Common master databases being used in modules.

Other Benefits

- Cost efficient
- Repetitive data-entry operations save man-hours.
- Drop down, Cut & Paste minimises data entering time and hence improves data uniformity and correctness.

System Specifications:

- Hardware Requirements for SOUL 3.0
- Processor Speed: 1.8 GHz or Higher
- RAM: Minimum 2 GB for 32-bit and 4 GB for 64-bit / 8 GB recommended for the Server system.

- Free Hard Disk Space: Minimum 10 GB Free
- OS Requirements - Windows 10 or higher, Windows Server 2012/2016/2019 or higher

LAN Setup required

- Minimum CAT5 UTP cabling for all nodes.
- Use the required number of network switches.
- Server and all client nodes should be connected to a 10/100 Mbps network.

Internet Setup required

- Minimum 256 Kbps dialup connection

Power Back up

- UPS of at least 2 hours back up.

Conclusion:-

Automated library systems significantly enhance efficiency by enabling instant access to library holdings through multiple search parameters, a feat impossible with traditional, manual systems. This saves both energy and time for library staff and users. Leveraging modern computer technology and software, users now enjoy rapid and intuitive access to the most current information. Furthermore, remote access to the library's collection is readily available. Recognizing the library as the intellectual heart of an educational institution, JES College maintains a well-equipped main library with an extensive collection of resources. An interlibrary LAN system further enhances user experience, allowing access to the library database via OPAC. This system also empowers library staff to provide superior reference services to both faculty and students.

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