STATUS OF J. T. MAHAJAN ENGINEERING COLLEGE

LIBRARY AUTOMATION: A CASE STUDY

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ABSTRACT

This paper is a case study of automation undertaken at J T Mahajan College of Engineering (JTMCOE) Faizpur, Jalgaon. Administration and maintenance in a library can be made more efficient and effective with the use of computers that are of immense help in doing many jobs. For instance activities like housekeeping operations such as acquisition, cataloguing, serial control and circulation section can be performed quickly with having full control on the collection. Avoiding the duplication of work saves lot of time. The automated library can provide extended services to the users of the library. The paper describes in detail the development of automation procedures and applied tools and to identify the status of library automation.

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KEYWORDS: College Library, Library Automation, ICT, Collection Development, OPAC, Library Automation Software.

1.   INTRODUCTION

We live in an information age, and libraries are expected to use Information and Communication Technologies [ICT] to provide information more expeditiously and exhaustively. In the present age of information, it has been increasingly felt that information needs and users must become the central focus of attention, to serve users better. Success of information service is more likely to be achieved by adjusting the services to meet the specific needs of an individual rather than trying to adapt the individual user to match with the output of the information system.

Libraries play vital role in the educational, industrial and technological progress of a country. Progress of the nation depends upon advance knowledge gained by educationists, technologists, engineers and scientists of the country. Hence the role of libraries in Universities and then educational institutions is to active a free flow of information from the point of generation to the point of utilization of information efficiently and effectively. The present educational policy emphasizes on self-study, experiments, field study and research rather than classroom study. Therefore, library has to play vital role in the higher education to meet user requirements. Optimum use of resources is possible through networks only.

2.   DEVELOPMENT OF LIBRARY AUTOMATION

Library automation began in the late 1970s in a few special libraries and has now reached most of the university libraries. It has yet to take off in college libraries in India owing to various problems. Many studies on library automation have been undertaken in the

West, but few have been undertaken in India The automation of libraries and information centers in India started in middle 19th century till the concept of automation was entered on the use of computers for housekeeping operations and information services by individual libraries. There are certain factors responsible for the automation of the libraries. Information explosions, increased user's demand, labour intensive nature of work, changing concepts of documents.

Application of modern management techniques reduced response time and need for resource sharing are important elements. With the tremendous capabilities of computer, libraries started using computers for the in-house operations. The scope of the study is the JTMCOE College Library in all respects such as in-house operation its automation, information services etc., since the computerization started in end of year 2012 the study will bring out its strength and weakness that will help the library to improve the system to user's satisfaction.

3.   JTMCOE COLLEGE: A PROFILE

Technical and Medical Education Society (TME'S) which was established in 1983 under the dynamic leadership of the great educationist Late Dadasaheb J. T. Mahajan, Ex. State Home Minister of Maharashtra. Started the college of Engineering in 1984. Since then the Institute is imparting quality engineering education in various disciplines of engineering. Government of Maharashtra has rated the college as "A Grade". Civil Engineering, Mechanical Engineering and Electronics and Telecommunication Engineering

branches have received accreditation by NBA (National Board of Accreditation of AICTE, New Delhi) the college is also accredited by Institution of Engineers, Kolkata.

Presently the College has about 31,000 Sq.Ft. of constructed buildings and is serving more than 1800 students. Our College provides all the facilities related to academic and overall personality development. The College has spacious classrooms, Rich Library with thousands of books available for almost every subject (Library with 49500 books worth Rs. 01 Crore 35 Lakhs), well equipped laboratories with all equipment, Playground, Workshop, Broadband Internet Connectivity, College Bus and many other facilities.

3.1   Our Mission

- To impart value based quality engineering education to the students to groom them to be conscious engineers, professionals and citizens bearing torch for nation building and disseminating knowledge in masses for sustainable socio-economic development of the society.

3.2   Our Objectives

- To modernize all the existing school and college units commensurate with the twenty first century standards.

- To assess the needs of students and start new employment conducive courses.

- To take education to backward, economically backward and underprivileged classes by providing assistance.

- To have continuous interaction with staff, students and parents in order to enhance the quality of education and facilities.

- To promote extracurricular activities which will help in personality-development of students.

4. JTMCOE LIBRARY: AN OVERVIEW

The library is the lung of every educational institute, which breathes knowledge and information into the minds of the students. The JTMCOE Library has well-equipped Library with an elaborate collection of books, e-books, CD-ROMs, journals, e-journals, project reports, audio-visual materials and other resources to serve its users.

4.1 Collection development

The JTMCOE Library came into existence in the year 1984. The main Library is equipped with a good number of national and international books, journals in the field of Engineering, Humanities, Physics, Chemistry, Mathematics, English, Management, and General reading, etc. and also with the modern and latest technology to cope up with latest development to Provide quality and quick services to its users.

The main objectives of the Library is to support staff and students to Study, Research & Developmental Activities and Management with the View to provide up-to-date knowledge.

4.2   Statistics of the Year 2015 - 2016

Sr. No	Particular	Quantity
1	Books	50,100
2	Journals	92
3	E-books	35,000
4	E-journals	718
5	Bound volumes	2078
6	CD-ROMs	735
7	Maps	30

Table No.1   Statistics of the year 2015 - 2016

4.3   Library Staff

JTMCOE Library has good team of qualified Professional and Non-Professional Staff.
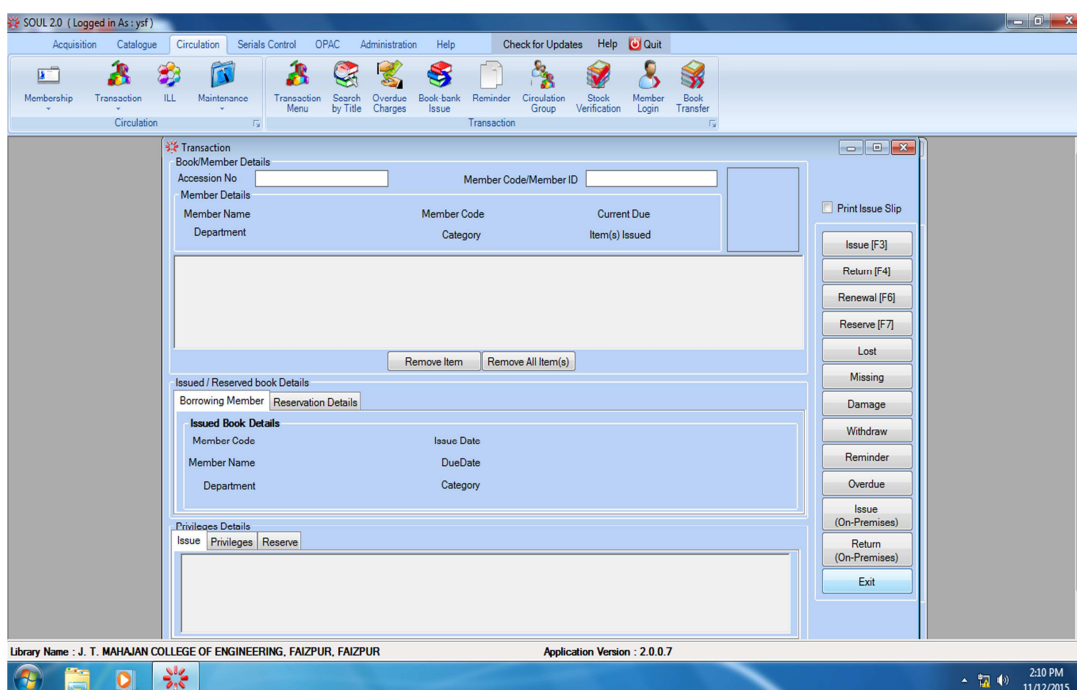
4.4   Library Services

JTMCOE Library is providing the following services to its users.

- Circulation

- Reference Service

- Current Awareness Service

- Selective Dissemination Service

- Reprographic Service

- Audio-Visual service

- News Paper Clipping Service

- OPAC (Online Public Access Catalogue)

- Interlibrary Loan

4.5   Automation of JTMCOE Library

The term "Automation" describes the way in which a machine is programmed to do a job that a person might normally do. Automation is often used to assist with jobs, which must be repeated over and over again.

"Library Automation" is a process of using computer- based system to do house - Keeping operations. Such as acquisition, circulation, classification, cataloguing, stock verification, etc. JTMCOE is one of the Best College of its kind in Khandesh Region to have a computerized Library Services. Computerization started since 2013 and built a complete database of over 49,500 books. Further we have Online Services provided to our users through DELNET & E-Journals access with INTER LIBRARY LAN SYSTEM consisting of 10 terminals connected to, the library Server storing our database. The Online Public Access Catalog (OPAC) is used to carry out online searches of library database by Author, Title; Keywords and Accession Numbers, which enables users to provide good reference service to staff and students.

Figure No: - 1 Circulation Transaction Menu.

The project was implemented at the JTMCOE Library, Faizpur. It deals with the automation of the entire library system thereby reducing paperwork and increasing efficiency. A Library plays a vital role in any education. College has the latest and best possible books, magazines, journals, audio-visual aids for the student and faculty members. The students use these books for their academics, general knowledge etc. Our College Library has one of the best and wide collections of related Academic books and journals. Our dedicated and always helping Library Staff takes care of each and every student by availing them with best of their requirements. The functioning of the existing system was studied and following details were determined.

4.5.1 SOUL Software

Software for University Libraries (SOUL) 2.0 is state-of-the-art integrated library management software designed and developed by the INFLIBNET Centre based is used. The latest version of the software i.e. SOUL 2.0 was released in January 2009. It is user-friendly software developed to work under client-server environment. The software is compliant to international standards for bibliographic formats and circulation protocols. After a comprehensive study, discussions and deliberations with the senior professionals of the country, the software was designed to automate all house-keeping operations of library. The software is suitable not only for the academic libraries, but also for all types and sizes of libraries, even school libraries. The database for new version of SOUL is designed for latest versions of MS-SQL and MySQL (or any other popular RDBMS). SOUL 2.0 is compliant to international standards such as MARC 21 bibliographic format, Unicode based Universal Character Sets for multilingual bibliographic records and NCIP 2.0 and SIP 2 based protocols for RFID, electronic surveillance and control.

The SOUL 2.0 consists of the following modules.

1) Acquisition

2) Catalogue

3) Circulation

4) Serial Control

5) OPAC

6) Administration

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

1)   **Acquisition**

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

❖ Suggestions management;

❖ Order processing, cancellation and reminders;

❖ Receipt, Payment and budgetary control;

❖ Auto accessioning;

2)   **Catalogue**

❖ Auto generation of letter number

❖ Master files such as currency, vendors, publishers etc.; and Reports.

❖ Catalogue module is used for retrospective conversion of library resources. It also facilitates library staff to process the newly acquired library resources. The salient features of catalogue module are:

❖ Supports copy cataloguing in MARC 21 format by using ISO-2709 standard;

❖ Supports master database of publishers;

❖ Multi-lingual database by using Unicode character set;

❖ Supports full MARC 21 bibliographic format;

❖ Facilitates generation of spine label, barcode & book card; and

❖ Supports global search and replace functionalities.

3)   Circulation

This module takes care of all possible functions of circulation. Utmost care was taken to design this module with built-in functionalities for membership management, maintenance and status of library items, transaction, ILL, overdue charges, renewals and reminders, search status and report generation according to the status of the items. The Circulation Module is fully compliant with the NISO Circulation and Interchange Protocol (NCIP) version 2.0 and SIP 2 protocol for electronic surveillance and RFID-based transaction of the items.

Major functions of the circulation module are:

❖ Membership;

❖ Transaction;

❖ Inter-library loan;

❖ Overdue charges;

❖ Reminder;

❖ Search status;

❖ Report generation based on the various requirements.

4)   On-line Public Access Catalogue (OPAC)

One of the major attractions of SOUL is its robust On-line Public Access Catalogue (OPAC). The OPAC has simple and advanced search facility with minimum information of documents available in database by author, title, corporate body, conference name, subject headings, keywords, class number, series name, accession number or combination of any of two or more information. OPAC offers the following functionalities:

❖ Simple Search;

❖ Boolean Search;

❖ Advanced Boolean Search;

❖ Displaying and downloading of records in MS Excel, PDF or MARCXML;

❖ Web-based member interface through OPAC; and

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

5) Serial Control

Managing serials is the most complicated job for a library. The module keeps track of serials in the library effectively and efficiently. The serial control module is developed based on the KARDEX system and has following functions built into it:

❖ Suggestions;

❖ Master databases;

❖ Subscriptions;

❖ Article indexing of journal/book articles;

❖ Cataloguing of electronic journals;

❖ Check-in of individual issues of journals;

❖ Payment, reminder, binding, and history;

❖ Keeps track of the history changes of the journals; and

❖ MARC21 entry/edit option.

❖ Export / import using ISO 2709 bibliographic exchange format;

6) Administration

The module is divided into three major sub-modules, namely User management, System Parameters and Masters. The Administration Module offers following features:

❖ Grouping of users based on the policy;

❖ Common master databases being used in

❖ Transactional rights over the systems; modules.

❖ Transaction level security to users;

❖ Various configuration settings such as labels, e-mail and other parameters related to the software use; and,

4.5.2 Future Plan

➢ **Training the staff**

Trained IT staff became the necessity of present IT revolutionized scenario. Staff should be computer literate. All the professional staff must be trained and provide learning environment. Unfortunately such free and healthy environment not found in the library. Deputing staff for training programs, seminar and conferences enhance the knowledge, but these activities are becoming very rare due to the lack of interest from the staff and financial hurdles.

➢ **Library and information services**

The Main Library is providing various services to its users. Also happing to provide better and qualitative services when the Intranet is implemented within the Campus in a short period.

➢ Automation of house-keeping operations

Earlier the project was planned to make Circulation and Search modules with the expandability options. Now the Software have provision to the Librarian has create or delete other existing modules, etc. Bar coding has been done far all the Library materials: books, journals, bound volumes, projects, etc. bar coding has been done not only for the books but also library user ID Cards.

➢ Enhancements possible

Like all other systems, the Library Automation system has same aspects that can be improved upon. These are as follows:

o Students can be emailed when their reserved books are available.

o Reminders can also be mailed to students when the books issued to them are overdue.

o Pages from Internet sites, articles from the latest journals that can be scanned can be stored in database, where the students can reference them easily in digital Library.

o Books can be stored online in order to provide students access to them, even without issuing them.

5. CONCLUSION

The library is the lung of every educational institute, which breathes knowledge and information into the minds of the students, The JTMCOE has a well-equipped Main Library with an elaborate collection of books, journals, project reports, AV- materials, e-books, e-journals and other resources to serve its users.

J T Mahajan College of Engineering is one of the first college of its kind in Khandesh Region to have a computerized Library. Online Services provided to our users through our Inter Library LAN System in which users can access the library database from the OPAC and also helps to library staff to provide good reference service to staff and students.

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