AUTOMATION OF ENGINEERING COLLEGE LIBRARIES IN KALABURAGI AND BIDAR DISTRICTS OF KARNATAKA STATE

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Abstract:

This study depicts the status of library automation in engineering college libraries of Kalaburagi and Bidar Districts of Karnataka State, with a comprehensive analysis. The article discusses the newly emerging trends and developments in the field of library science, are areas covered in this, are available library service and resources, status of library automation, digital library infrastructure and means and way for their improvements. This paper also presents the findings of survey through questionnaire. For evaluation of the study questions were framed and data collected from the sample engineering colleges of Kalaburagi and Bidar Districts. The results of the survey are presented and discussed in this paper.

Keywords: Engineering college libraries, electronic resources, library services, automation, modules and Internet.

Introduction

In the Internet age, the proliferation of knowledge has been growing at a very faster rate in almost all the fields of activities, particularly in science and technology. As the information has increased, the no. of user has also increased in proportionate. As such, the responsibility of library staff in providing relevant information and document to every user in shorter and possible time in a proper way has increased to a larger scale. To handle this enormous amount of information, library has to adopt accurate devices or tools efficiently for processing it, by way of mechanization or 'automation'. Automation of library activities provides the services very efficiently, rapidly, effectively, adequately and economically. Library automation involves total computerization of library activities, right from acquisition to management and circulation to   reference services, information services, photocopying, microfilming and barcode technologies, creation of database, computerization of library networks and use of telecommunication for information retrieval, RFID Security gate etc. The UGC also recommended, in a national conference held recently in New Delhi with the Vice-Chancellors of various universities emphasized that by establishing library automation and networks in the well-established institutions could offer best talents and technology to rural and urban backward and deprived institutions. Besides this Library Automation improves the efficiency of the following activities.

- Controlling the collection of information.

- Imposing effective search strategies.
- Establishing linkages with remote databases.
- Updating information collection.
- Saves a lot of precious time in handling routine and repetitive library operations.
- Impossibility of a single library to acquire and make available the entire published material.
- Improve access to library collection from anywhere.
- An effective control over the entire library operations and services.
- Improve the existing services as well as introduce new services suitable to users.
- Share the resources among various libraries in the locality, region, country or world.
- Avoid unnecessary duplication of work and use the services of the existing library staff.

Statements of the Problem

The rapid development of ICT has changed the libraries over the last few decades. The library systems all over the world are going through a process of transformation to address the effects and implications of technological change. In response to the needs of the hour, library automation must be very much established and gradually upgraded to satisfy diversified demands of library professionals, teaching staff and students. Imparting Education is an essential part of an academic institution for the growth and prosperity of a nation and society. Apart from primary and secondary education, higher education plays a key role in the development and transformation of society. As such, the college libraries play a key role in shaping the lives of students.

Significance of the Study

The better the library, the better the students and their future. As such, Engineering students require vast theoretical knowledge and hands on experience before they complete their course of study to survive in their respective fields of engineering. To acquire comprehensive knowledge, they must be exposed to the latest applications.

In the ever changing technologically advancing information society, the scientific and technological education is of vital importance to any Engineering college for its prosperity and development. Engineering college libraries have to play a leading role to maintain their position as the college principal information resources and service provider. Automating a library is only the first step. Keeping up with new trends in information and communication technology is also of paramount importance. If the libraries fail to meet these challenges successfully, the tremendous investment that colleges have made on their library collections and facilities will be seriously undermined.

Engineering College Library will provide the required reading material, which is useful for their regular curriculum and practical knowledge. For proper arrangement, processing and retrieval of reading materials, there is a need to study the status of libraries of Engineering colleges of **Kalaburagi – Bidar Districts**.

Review of Literature

Realizing the importance of Library Automation in Engineering colleges, several studies have been undertaken in regard to the status of library automation, house keeping activities

of library automation modules, hardware, networking, benefits and shortfalls of library automation. Reviews of available previous studies have been presented in this section.

INFLIBNET – Centre published a book on " Library Automation Planning, 2004" Library Automation refers to the use of computers to serve the needs of library users. The operations of a library get a quantum jump with the introductions of computers. The computers help to provide fast and reliable access to the resources available in the library as well as elsewhere. The application of computers in the library operations avoids repetitive jobs and saves lot of labour, time, speeds up operations, increases use of library resources. computers are not only used as a tool for processing the data, but also for data storage and accessing.

Sinha and Chakrabarty (2007) concluded that the status of computerization of library housekeeping operations and computer based library services of college libraries of southern Assam, is in nascent stage. Only few colleges, Which are best colleges affiliated to Assam University, Silchar have started implementing project of automation and networking of their college libraries. The Govt. Of Assam and UGC should come forward to provide substantial financial assistance to the college located in the remote area of South Assam, which is popularly known as Barak Valley located in other parts of India.

Murthy, T. A .V and Colin, V.S.(2008) in their article "Library Automation" they described about the Library Automation and how Information technology has been one of the major factors causing changes in the way people communicate, locate, retrieve and use information. The impact of automation on the library is quite obvious and has created new types of work, prompted redefinition of certain functions, influenced interpersonal relationships and transformed traditional organizational structures into new institutional entities. Libraries today are faced with planning for automation within a rapidly changing and uncertain technological environment. Resource sharing under the circumstances plays a pivotal role. The paper addresses the various issues viz. establishment INFLIBNET and its role in automation of university libraries in India. The new initiative taken by the UGC to establish UGC-Infonet and E-subscription for the Universities gives required boost for the automation activity in the country.

Manohar Nunda, in his work (2009) " Library Automation" explained the study and nature of library automation and the various libraries automated with different modules in meeting the needs of the library. The tremendous change in using computers in circulation system, online technical support system, automated cataloguing, abstracting and indexing systems, the application of multimedia and the use of networking and the usage of web based sources through Internet. In particular the advantages of using computers in library.

Mull and K R Chandrashekara.(2009)   " Status of Library Automation in Engineering Educational Institutions in Karnataka": A Survey intends to carryout a survey of engineering college libraries that have computerized their operations and services. Thus this paper will provide an implicit view of experiences undergone by the engineering college librarians in computerizing their library operations. It also observed that 13.73   percent of libraries are not automated reasons could be varied from library to library they were lack of computer facility, financial problems, lack of trained man power and library collection is very less. The present study is limited to the automated libraries of engineering college libraries in Karnataka. It gives a status view of the software packages used by different libraries.

Helaluddin (2010) described in his study " The current position of libraries in ICT environment in Faridabad district of Haryana state". Various services provided by libraries with support of information and communication technologies to their have been observed and discussed with the library professionals and their users. 54% users are not satisfied with the number of terminals in the library. They need more terminals with high speed connectivity.

Dabas, K C and Singh (2011) presented their study " Automation Scenario in University Libraries: a Study of Some selected Libraries:. The paper attempts to review and audit the present scenario of library automation in nine university libraries in Punjab, Haryana and Chandigarh in the background of yesteryears and expected future. Paper points out that today complete library automation and modernization means digitization of the every bit of information contents. Discusses the scope, objectives and methodology adopted for collection, presentation and analysis of data for this paper. Highlights the meaning, main considerations, rational, main components and domain of library automation in the context of university libraries.

P S G Kumar and C P Vashishta (2011) in their paper " Academic libraries in the Internet era" indicated about the major theme of Internet in Indian academic libraries is divided into 5 sub themes: academic libraries and access to Internet and intranet, information sources on the Internet for higher education and research. Internet and Web search engines, Developing library Web site and education and training for Internet.

Barber, E. Tripaldi, N. Pisano, S. Werner, V. Romagnoli, (2012)

In their paper " Argentinian academic libraries automation: outline of a transition, process" while reporting results of an investigation based partly on an analysis of the results of 1996 and 1997 questionnaire surveys, of 30 public libraries and 28 academic libraries in Argentina, to determine these libraries" plans for the introduction of automation, the library processes automated, the evaluation and selection strategies adopted.

Objectives of the Study

- ❖ To know the status of library automation.
- ❖ To know about the holdings of libraries, staff particulars.
- ❖ To know the various facilities and services available in the library.
- ❖ To identify the technical process, (Software and hardware) used in the libraries.
- ❖ To analyze the various problems faced by the authorities and the staff during the process of pre automation and post automation of library.
- ❖ To suggest the measures for improving the quality of resources and services.

Hypothesis

As a complement to the objectives stated above, the empirical validity of the following hypothesis are to be tested in the course of investigations.

1. The inadequate infrastructural facilities and the meagre financial resources of engineering college libraries are the barrier in joining the networks.
2. Majority of the libraries are not satisfied with the resources and services of the Library Automation. Faculty members of the degree colleges expecting advanced applications in Libraries.

3. The non-availability of required I T skills by the   staff and users and also the unawareness of automated services, the Engineering college students and faculty members are not able to avail the advantage of library automation.
4. Majority of the colleges is facing problems at the time of pre automation and post automation as technical assistance is poor.

Scope and Limitations of the Study

The paramount aim of the present study is limited to the engineering and technology college libraries of **Kalaburagi and Bidar Districts of Karnataka State**. Out of 10 colleges 6 colleges selected for the study. The list of the sample libraries covered

1. P D A College of Engineering, **Gulbarga**
2. Appa Institute of Engineering and Technology, **Gulbarga**
3. Godutai Engineering College for Women, **Gulbarga**
4. Shetty Institute of Technology , **Gulbarga**
5. Gurunanak Dev Engineering College, **Bidar**
6. Bheemanna Khandre Institute of Technology, Bhalki, **Bidar**

Methodology

The main purpose of the present study is to evaluate the existing status of library operations in the sample engineering colleges of **Kalaburagi and Bidar Districts of Karnataka State.** In order to asses the status of library automation, both methods of data collections have been adopted, i.e. primary and secondary data through books and journal collections, e-resources, online sources and questionnaire methods. Questionnaire method is primarily adopted for collecting the required data for the present study. The questionnaire intended for librarians consists of 54 questions on profiles of Engineering colleges, designation, qualification, experience of librarians. The status of automation, access system, library house keeping operations, collection, sections, services, user education programmes, bibliographic database, number of computer units, nature of computerization, software, networking physical facilities, questions on pre automation, post automation and the advantage experience, support from the vendor and cost benefit analysis of library automation.

Table No. 1. Library Facilities and Services

Available Facilities /Services	PDA college of Engineering		App Institute of Engineering and Technology		Godutai Engineering college for Women		Shetty Institute of Technology		Gurunanak Dev Engineering College		Bheemanna Khandre Institute of Technology	
	available	Not Available	available	Not Available	available	Not Available	available	Not Available	available	Not Available	available	Not Available
Circulation Services	√		√	-	√	-	√	-	√	-	√	-
New Arrival List	-	√	-	√	-	√	-	√	-	√	√	-

Interlibrary Loan	-	√	-	√	-	√	-	√	-	√	-	√
Reference Services	√	-	-	√	-	√	√	-	√	-	√	-
User Education	√	-	-	√	-	√	-	√	√	-	√	-
CAS	√	-	-	√	-	√	-	√	√	-	-	√
SDI	-	√	-	√	-	√	-	√	-	√	-	√
Indexing	-	√	-	√	-	√	-	√	-	√	-	√
Abstracting	-	√	-	√	-	√	-	√	-	√	-	√
Internet	√	-	√	-	√	-	√	-	√	-	√	-
Email	-	√	√	-	-	√	-	√	-	√	√	-
Photocopying service	√	-	√	-	√	-	√	-	√	-	√	-
Fax	-	√	√	-	√	-	√	-	-	√	√	-
Newspaper clipping	√	-	√	-	√	-	√	-	√	-	√	-
Compilation of bibliography	-	√	√	√	-	√	-	√	-	√	-	√
Translation	-	√	-	√	-	√	-	√	-	√	-	√
Reference queries	-	√	√	-	-	√	-	√	√	-	-	√
User study	-	√	√	-	-	√	-	√	√	-	√	-
RFID&Smart card control	-	√	-	√	-	√	-	√	-	√	√	-
Video conferencing	-	√	√	-	-	√	-	√	-	√	-	√

Digital library	√	-	√	-	√	-	√	-	√	-	√	-
Educational Multimedia facility	-	√	√	-	-	√	-	√	-	√	√	-
Any other service	-	-	-	-	-	-	-	-	-	-	-	-

The above table shows that 100% college libraries are automated with circulation module. 16.6% College libraries have the facilities of New Arrival List service. No college is maintaining interlibrary service. 50% of the colleges are maintaining User Education Service. 33.3% libraries have CAS service. No college is maintaining Indexing and Abstracting Service. All most all the engineering libraries 100 % equipped with Internet Service. Only 23.33% colleges are providing Email service. 100 % Photocopying service is being provided by all the six engineering colleges. Four colleges are maintaining 66.6% Fax service in their colleges. 100 % News paper clipping service is provided by all the 6 engineering colleges. Compilation of Bibliography is being maintained by one college with a meagre percentage of 16.6% . No college is offering Translation service. Two colleges are providing Reference Query Service with a percentage of 33.3% . Three colleges are providing User Study with a percentage of 50% . Only one college is providing 16.6% RFID & Smart card control service. Good numbers of 100% colleges are providing Digital Library service. Only one college is providing Video conference service. 66.6% colleges are providing Educational Multimedia facility. The libraries, which are not offering the above service, should introduce these services after ascertaining.

Table No. 2 Users Strength

S.No.	Name of the Institution	Faculty	Students	Non-Teaching Staff	Total No. of users
1	PDA college of Engineering	00(17.3)	1500(15.8)	50(15.1)	1650(15.9)
2	App Institute of Engineering and Technology	80(13.9)	2000(21.1)	30(9)	2110(20.3)
3	Godutai Engineering College for Women	200(34.7)	4000(42.3)	50(15.1)	4250(41.1)
4	Shetty Institute of Technology	50(8.6	376(3.9)	34(10.3)	460(4.4)
5	Gurunanak Dev Engineering College	125(21.7)	1500(15.8)	150(45.4)	1775(17.1)

6	Bheemanna Khandre Institute of Technology	20(3.4)	80(0.8)	16(4.8)	116(1.1)
	Total	**575**	**9456**	**330**	**10361**

The above table revealed that a total of 10361 staff and students are attached with these six engineering colleges. Godutai Engineering College for Women standing first among the six engineering colleges having 4250 with a percentage of 41.1, staff and students. Bheemanna Khandre Institute of Technology standing last poor no of human personal with a meagre percentage of 1.1(116) staff and students. As far, the faculty is concerned a total of 575 faculty is working with these institutions, out of which App Institute of Engineering and Technology standing first having 200 (34.7) among six engineering colleges. The poor no of faculty is maintained by Bheemanna Khandre Institute of Technology with a meagre percentage (3.4) 20 faculty.   As far, the students admissions and strength, Godutai Engineering College for Women standing first having 4000 students with a percentage of (42.3) from the six engineering colleges in Kalaburagi and Bidar Districts. The poor strength is seen in Bheemanna Khandre Institute of Technology with a meagre percentage 80 (0.8) percentage of students. As for the Non-teaching staff, Gurunanak Dev Engineering College having a good no of 150 (45.4) non-teaching staff is recruited to execute the various activities in the engineering colleges. The poor strength is maintained by Bheemanna Khandre Institute of Technology with a meagre percentage 16 (4.8). It is noticed form the above table that some colleges are being maintained by some colleges, the colleges should understand the needs and necessities of the students, hereby they can improve the students's strength.

Table No. 3 Status of Library Automation

S.No.	Name of the Institution	Fully automated	Partially automated	At initial stage	No automation
1	PDA college of Engineering	√	-	-	-
2	App Institute of Engineering and Technology	√	-	-	-
3	Godutai Engineering College for Women	√	-	-	-
4	Shetty Institute of Technology	-	-	√	-
5	Gurunanak Dev Engineering College	√	-	-	-
6	Bheemanna Khandre Institute of Technology	-	-	√	-

It is observed from the above Table No. 3 that, the status of Automation in engineering colleges libraries of Kalaburagi and Bidar Districts have gone far ahead in automation. In Kalaburagi and Bidar Districts 4 out of the six engineering colleges, 4 (66.6%) are fully automated, 2 (33.3%) are at an initial stage of automation. No college is strangers to library automation.

Table No. 4 Areas of House keeping operations

S. No.	Modules	PDA college of Engineering	App Institute of Engineering and Technology	Godutai Engineering college for Women	Shetty Institute of Technology	Gurunanak Dev Engineering College	Bheemanna Khandre Institute of Technology
1	Acquisition	√	√	√	√	√	√
2	Cataloguing	√	√	√	√	√	√
3	Circulation	√	√	√	√	√	√
4	Serial control	√	√	√	-	-	-
5	OPAC	√	√	√	-	√	-
6	Budgeting	√	√	√	√	√	√
7	Administration	√	√	√	√	√	√
	Total	7	7	7	5	6	5

The above Table shows the status of automation in the basic areas of house-keeping operations like Acquisition, Circulation and Serial Control, OPAC, Budgeting and Administration. It shows that out of the six colleges only three 3 (50%) colleges posses all the modules. Out of the six, three colleges 3 (50%) colleges do not have serial control module and 2 (33.3%) colleges do not have the OPAC module. This shows that some colleges are not fully automated and are at the initial stage of development.

Conclusion

Libraries of engineering college can hardly function today without computers and library automation. A well equipped library with all the facilities of modern infrastructures and technologies could with stands in the changing environment and require constant improvement based on new advances in technological innovations. In the fast growing technology library automation is very essential the staff, management and resources play a vital role in the building of their future. In fact it is the time for innovation and implementation of new technologies in the technical environment. This could be possible only by up to date Library Automation.

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