

5.2.1 Suggestions

The study should enable librarians to understand the existing problems of use and misuse of library resources by the students. This survey has been carried out to know the actual problems of students, why the students misuse the reading materials in the library. Based on the results from the analysis of the data gathered, the following suggestions are made:

1. The present library is lacking in user awareness/orientation programmes, etc. in order to use library resources and services.
2. Providing a greater number of texts/reference books/technical journals with recent versions along with proper shelving of reading materials
3. Some of the respondents have suggested digitisation of library services and operation is the need for reducing the misuse of reading materials in the library.
4. Proper security and vigilance should be made to avoid theft of documents and a circuit camera should be fixed in the library to avoid the ripping out of pages in the library.
5. Counselling should be conducted among the students to avoid the misuse of reading materials.
6. Giving practical demonstration in searching of documents through OPAC is essential.

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Use of E-resources in a Networked Environment A Case Study of CUSAT

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This paper studies the use of E-resources by the faculty and research scholars of Cochin University of Science and Technology. The use of E-resources under INDEST consortium, UGC Infonet project, and the databases subscribed to in the CUSAT Library are studied in the survey. The survey covers various aspects like awareness of the users, user satisfaction, use pattern of E-resources, preference for print or electronic version, etc. The problems faced are stressed and possible solutions are suggested.

1 Introduction

The Cochin University came into existence in 1971 to promote higher education and research with emphasis on Science, Technology, Engineering, Industry and Commerce. The University has at present 27 departments of study and research offering graduate and postgraduate programmes across a wide spectrum of disciplines in frontier areas of science and technology. The Cochin University Library was established in 1977, as a central agency to meet the information needs of the academic community of the university. Being the information centre of a technological university, the central library has built up a balanced collection of both print and electronic resources of all branches of Science, Technology, Social Sciences, Humanities, Languages and Literature. At present the collection exceeds 70,000 including reference books, doctoral theses and back volumes of periodicals, etc. The collection also includes Patents, WHO and other UNO documents, CD-Rom databases, etc. With the modernisation and networking of the library and information system the University campus has been networked with a fibre optic cable

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backbone with around 500 PCs in all Departments and the University and Department Library holdings can now be accessed through this local network and Internet. Under the UGC Infonet project, Cochin University has been provided with a 2mbps terrestrial leased line connectivity for accessing E-resources in addition to the 512kbps existing leased line connection to VSNL gateway.

2 E-resources

Information and communications technology has a major impact on materials for research. It is changing the shape both of primary resources like texts, images and data, and secondary resources like catalogues. Now Web-based electronic resources have become most popular tools for academic research. It is because E-journals are an up-to-date source of information and they can be accessed from any computer, which is connected to the campus network and the Internet. Besides these E-resources support searching capabilities, timely access and other unique features like links to related items, reference linking, etc.

Overview of E-resources in Cochin University

E-resources available in CUSAT can be grouped under three categories:

1. E-resources subscribed to in Cochin University 2. E-resources through INDEST Consortium 3. E-resources under UGC-Infonet

1. E-resources subscribed to in CUSAT

a. Current Contents

The University library subscribes to 5 editions of current contents published by Thompson -ISI, namely Agriculture, Biology & Environmental Sciences (2000+), Social Sciences (2004+), Life Sciences (2001+), Physical, Chemical & Earth Sciences (2000+), Engineering, Computing & Technology (2000+), and Social and Behavioural Sciences (2004+). From 2005 onwards the online version current contents connect is available in the campus network from the Website <http://isiknowledge.com>.

b. Chemical Abstracts

The print version of CA published by the American Chemical Society is available in the library from 1907 to 1999 and CD version from 2000 onwards. The CD version replaces 50 plus books with eight CD discs.

This is a subset of COMPENDEX - a database covering the core literature of major engineering specialties and technology citations from approximately 400 journals and key conference proceedings. Database provides abstracts of articles from major journals in the fields of Chemical Engineering, Civil Engineering, Metals and Mining, Manufacturing Engineering, etc.

d. INPAT - Indian Patents on CD-Rom

INPAT is a patent database on CD-ROM brought out by INSDOC, New Delhi. It is an index to about 50,000 records of the patents granted in India from 1972 to December 1997.

e. Indian Science Abstracts: ISA on CD-Rom

ISA is an index to the science journals published in India during 1990-1999 brought about by the INSDOC. The database can be searched using key subjects, author, journal, etc.

Bibliographic details and abstracts are provided for each record

f. INELIBNET databases

CUSAT Library has been participating in the INFLIBNET project by contributing data to their databases. The database of books, serials, theses, experts, projects, etc are available from the Web site representing holdings of the participating libraries

g. DELNET Databases

CUSAT Library being a member of DELNET, is provided access to all the databases of DELNET

2. E-resources through INDEST Consortium

Indian National Digital Library in Science and Technology (INDEST) Consortium was set up by the Ministry of Human Resource Development to coordinate access to electronic resources, for the technical and engineering institutions. The Ministry provides funds for subscription to Electronic Resources with financial support from AICTE. Under INDEST Consortium Online access is provided to IEEE/IEE Electronic Library (IEL Online) and ProQuest Applied Science and Technology database to Cochin University.

3. E-resources under UGC- Infonet

UGC- Infonet project came into existence from January 2004. Under this project online resources include bibliographic databases, full-text databases, 1 reference source and 2 gateway portals.

a. Bibliographic Databases

1. Chemical Abstracts Service: CAS is now available on the desktop through STN on web. URL: <http://stnweb.cas.org>. Access is limited through passwords provided to selected departments and CUSAT Library.

2. Biological Abstracts: Biological abstracts (from 1969 +) and Math Sci databases (from 1940 +) are available through the Silverplatter platform <http://web5.silverplatter.com/webspirs/start.ws?customer=c180470>

3. Royal Society of Chemistry

Six databases are accessible from the website of Royal Society of Chemistry. <http://www.rsc.org/> - Analytical abstracts, Catalysts & Catalysed Reactions, Chemical Hazards in Industry, Laboratory Hazards Bulletin, Methods in Organic Synthesis, and Natural Product Update.

b. Full-text Databases

Full-text databases under UGC Infonet include the journals from the following publishers:

Sl. No.	Name of the Publishers	No. of E-journals
1.	American Chemical Society	31
2.	Royal Society of Chemistry	23
3.	American Physical Society	8
4.	Institute of Physics	36
5.	American Institute of Physics	19
6.	Cambridge University Press	72
7.	Project Muse	222
8.	Springer Link Journals	550
9.	Nature	1
10.	Science Online	1
11.	Elsevier Science	34
12.	Portland Press	7
13.	Blackwell Science	800
14.	Taylor and Francis	1222

c. Gateway Portals

The portals J-gate and Ingenta provide an index to the journals available full text under UGC-Infonet, Open access journals and also abstracts of journal articles not subscribed, in different branches of Science, Social Science, Engineering and Technology.

4 Objectives of the Study

The study was intended to collect information from the faculty and research scholars to know whether they were satisfied with the E-resources currently available in Cochin University of Science and Technology. The specific objectives of the study were the following: -

1. To evaluate the E-resources available in CUSAT
2. To ascertain the awareness of E-resources among the faculty and research scholars
3. To identify the use pattern of E-resources among the faculty and research scholars
4. To know the satisfaction level of current E-resources available in CUSAT
5. To know whether research scholars and faculty prefer to access the electronic version or the traditional print version
6. To know the requirements of research scholars and faculty regarding the accessibility of E-resources
7. To collect suggestions regarding the collection development of E-resources

5 Methodology, Scope and Limitations of the Study

The present study aims to evaluate the E-journal usage in Cochin University of Science and Technology. Stratified sampling was used to collect data from the respondents. The academic community was divided into two strata: 1. Faculty and 2. Research Scholars. Most of the Departments were closed for the summer vacation during the period of study; hence the PG students could not be included in the survey. An equal number of 30 questionnaires was circulated among the faculty and research scholars of the different Departments of the University. Out of

30 questionnaires mailed to the faculty, 14 were returned and in the case of research scholars 29 were returned. The total response rate was 72 per cent, in which the response rate of the faculty members was 47 per cent, whereas the research scholars response rate was 96.7 per cent. (Table 1)

Table 1: Category-wise Response Rate

Sl.No.	Users	No. of Mailed Questionnaires		Response-Rate	
		Count	Percent	Count	Percent
1	Faculty	30	50%	14	47%
2	Research Scholars	30	50%	29	96.7%
Total		60	100%	43	72%

6 Survey Results

Out of the total population selected for the survey 53.5 per cent was male and the female respondents accounted to 46.5 per cent. Out of the total sample selected by the investigators around 70 per cent sample population are aware of the E-resources available in the University and access them through the campuswide network without any problem. Further detailed analysis of data showed that the majority of the faculty members (78.6 per cent) were aware of the E-resources available in the University and knew how to access them. About 21.4 per cent of the faculty opined that they were aware of the E-resources but they had some problems in accessing the E-resources. In the case of the research scholars around 70 per cent were aware and knew how to use them. But a few (14 per cent) were not familiar with the usage of E-resources and about 20.4 per cent observed that the access was not easy. All the respondents were positive about the need to conduct regular training and awareness programmes (100 per cent).

Table 2 showed that a small percentage (14 per cent) of the respondents were satisfied with the E-resources available in CUSAT. The majority (86 per cent) were not satisfied with resources available in their specific subject field.

Table 2: Satisfaction with E-resources

Opinion	Research Scholars		Faculty		Total	
	Count	Per cent	Count	Per cent	Count	Per cent
Satisfied	4	13.7%	2	14.3%	6	13.95%
Not Satisfied	25	86.2%	12	85.7%	37	86.05%
Total	29	100%	14	100%	43	100%

Figure 3 shows the data regarding the E-journal access-point of the respondents. Only 6 per cent of the faculty and research scholars depend on the University library to access the E-journals. About 94 per cent of the respondents accessed the E-journals from the computer labs; this is because the University has a campus wide network with leased line 2mpbs connectivity. Most of the departments have full-fledged computer labs with enough nodes to access the E-journals. By analysing the registers of the information services division the investigators noted an interesting fact that the postgraduate students used the university library more to access the E-journals than the research scholars.

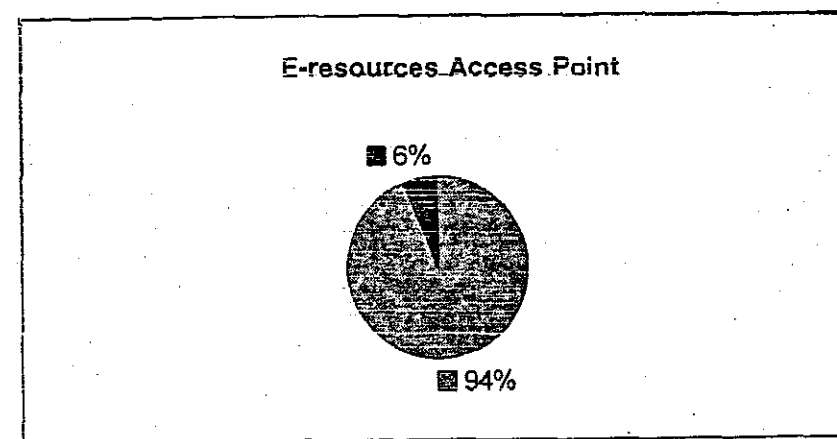


Figure 3: E-resources Access Point

The major objectives of the faculty to access the E-journals were to get the full-text of articles. There is a difference of opinion between faculty and research scholars in this issue. Research scholars needed (68.9 per cent) both full-texts, abstracts, and table of contents.

Analysed data about the use pattern of the respondents showed that most of the faculty members browsed the E-resources only 2-3 days a week or occasionally, while the majority (41.9 per cent) of the research scholars accessed these resources daily and relatively a limited number of people 2-3 days in a week (39.5 per cent).

The survey revealed that regarding the preference of the respondents to electronic or print version of the documents, interestingly no one in the two categories was interested to use the print version only. Most of the faculty (71.4 per cent) has opined that they prefer to use the electronic version of the documents and 28.6 per cent has noted that they wish to use both print and non-print materials. In case of research scholars, 68.9 per cent wish to use the electronic version only and 31.1 per cent preferred to use non-print and print equally. (Table 4)

Table 4: User Preference to Print/Non-print

Resources	Faculty		Research Scholars		Total	
	Count	Percent	Count	Percent	Count	Percent
Print	-		-			
Electronic	10	71.4%	20	68.9%	30	69.7%
Both	4	28.6%	9	31.1%	13	30.2%
Total	14	100	29	100	43	100

The survey revealed that the most used full-text E-resource in Cochin University is IEEE, followed by Science Direct, ACS, Springer, IOP, Nature and Science. In bibliographic databases, CAS through STN was the most used. In comparison, the least used E-resource was Project Muse and Cambridge journals.

Majority of the respondents requested to provide access to more Elsevier and Wiley Interscience journals in the E-resources. Most of the users requested to improve the accessibility of E resources especially the Infonet journals, by providing round-the-clock Internet connectivity, and also to provide multi-user license to IEEE journals.

7 Conclusion

The study showed that the reading behaviour of faculty and students is changing. They are giving more importance to electronic versions of documents. With the availability of more resources through the Internet with high-speed connectivity the demand for E-resources in their specific subject is increasing. Accordingly, the libraries have to evolve more scientific methods to develop a standard collection of E-resources along with print documents, assessing the requirements of the academic community.

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