

# USE OF E-RESOURCES BY THE FACULTY MEMBERS OF ENGINEERING COLLEGES IN KERALA: A SURVEY

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## Abstract

Use of e-resources in this era of information technology is a topic for study, because it supports teaching, learning and research activities of the present user community, especially that of faculty members. Huge amount of money is needed for subscribing to e-resources; hence need to analyze the use and outcome thoroughly. The purpose of this study is to find out the awareness, availability and the usage of e-resources by the faculty members of engineering colleges in Kerala. It also examines the barriers the users are facing while using the e-resources and their level of satisfaction. A survey was conducted among the faculty members of 15 selected engineering colleges in Kerala. Out of 375 online questionnaires distributed, 240 valid responses were received back. The findings show that the majority of faculty members are well aware about the e-resources and most of them are using e-resources at least once in a week. Generally, availability of e-resources is good except for a few engineering e-packages. Majority of the staff members are using desktop computers for accessing the e-resources and the main purpose of using them is for teaching. Password not known, Virus threat, poor internet connectivity, lack of time and availability of e-resources restricted to the campus are some of the difficulties they are facing. The study also reveals that almost all staff members are satisfied with the facilities available for accessing e-resources.

**Keywords:** E-Resources, Faculty usage, e-journals, Internet, Engineering College Libraries, Kerala

## INTRODUCTION

In the past two decades, higher education has made tremendous growth, providing quality education In India. Computers and related electronic resources have come to play a central role in education. Electronic information sources are becoming more and more important and useful for the academic community. University academics are a unique population and rely on recent and timely information. Electronic resources are now used more often than print resources. Most of our students have considerable experience with

the Internet and make use of it for much of their academic work. But it is not just students who find electronic resources valuable. Teachers benefit from these resources as well, by employing a series of useful tools. Electronic tools can make classes more efficient; lectures more compelling, informative, and varied; reading assignments more extensive, interesting, and accessible; discussions more free ranging and challenging.

There is a great need to study the use of electronic resources and investigate the level of satisfaction among academics in order to redefine the collection and services provided by academic libraries and to improve the technological platforms that make these electronic contents available to users.

### **E-resources**

The electronic resources are systems in which information is stored electronically and made accessible through electronic systems and computer networks. An electronic resource is defined as a resource which requires computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via internet and so on.

Electronic resources provide access to information that might be restricted to the user because of geographical location or lack of finance. Electronic resources also provide access to current information as these are often updated frequently. Through their various search techniques electronic resources provide extensive links to explore additional resources or related content. In addition, electronic resources are considered as important resources of teaching, research and training. Thus, most of libraries as well as the universities of the present day provide electronic resources for higher education and research. Electronic resources deliver the collection of information as full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology etc. E-resources may include e-journals, e-discussions, e-news, data archives, e-mail, on line chatting, etc

### **REVIEW OF LITERATURE**

The survey regarding use of electronic resources has been carried out in many studies.

Lohar and Roopashree (2006) studied the use of electronic resources and how the electronic resources are improving the academic career of the faculty and the problems encountered in the use of the electronic resources. The study was based on faculty members only.

A study by Abouserie (2006) surveyed on the use of electronic journals by Library and Information Science faculty members at the school of Information Science at the University of Pittsburgh. The study showed a difference in the usage of various information sources, whereas the study found variability in the sources used according to rank and gender. Also there was a variance satisfaction with electronic resources, where faculty members were most satisfied with index and abstracts and Full Text databases and

Electronic Journals. Faculty members considered electronic journals highly credible, most accurate, highly responsible and most supportive and convenient to meet their needs.

Lohar and Kumbar (2007) evaluated the use of libraries by teachers under the title, “Teachers Attitude towards Library Facilities and Information Resources in First Grade Colleges in Shimoga Districts: A Survey”. Results of the study revealed that 52.25% users spent less than an hour and more than half an hour only in libraries per week. Only a small fraction of users was familiar with inter library loan service. Accessibility of the reading material, its adequacy, users’ opinion about library services such as lending service, pattern of search for latest literature, inter-library-loan, photocopy service, orientation, computerization of libraries, the Internet, etc. were also examined.

Manohar (2007) analyzed the internet usage of agriculture scientists and impact on Internet users and other E- resources on academic efficiency. Manohar studied the internet accessibility of agriculture scientists in the college of agriculture and analyzed the impact of internet, E-resources, print or electronic media on academic efficiency.

Manjunath ,Lohar and Mallinath ,Kumbar (2008) in their paper “Teacher attitudes toward library facilities and information resources in first grade college in Shimoga district: A survey” gathered information through a questionnaire indicated that majority of college libraries in Shimoga district are not running satisfactorily but there are a good number of colleges, which have adequate and well organized document collection and provide the satisfactory services to the users. The facilities at aided colleges and university college libraries are better. However, newly established colleges are suffering from inadequacy of library resources, therefore the study help not only to strengthen the library resources and services on trial basis of the user- need but also acts as a guide in various decision making policies

Patil and Parameshwar (2009) in paper titled “Use of Electronic Resources by the Faculty Members and Research Scholars in Gulbarga University, Gulbarga: A Survey” disclosed the use of electronic resources by the faculty members and research scholars in Gulbarga University. Questionnaire was used as a data collection tool. Study revealed the need to train users in using the electronic resources.

Singh (2009) examines the search pattern of online journals among the faculty members, research scholars and post-graduate students to collect the required data. The study reveals that the majority of users are aware about the availability of online Journals. It was found that many users faced problem when using online journals and that they were interested in undergoing training on the use of online Journals.

Dr. A. Vijayakumar and Jaison Thomas (2014) made a study which highlights the preferences and importance of online resources among teachers and research scholars. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has been drastically reduced. The Internet can be used for efficient retrieval and for meeting the information needs.

Although these studies summarize certain conclusions about how people use Electronic resources, there are individual and library-specific differences that make it beneficial for many libraries to collect their own data.

### SCOPE OF THE STUDY

The present study is limited to the faculty members of fifteen engineering colleges in Kerala, started in 2002 and earlier. The study highlights the awareness and availability and use of e-resources by the faculty members, problems faced while accessing e-resources, level of satisfaction of the users, suitable recommendations to improve facilities and services.

### OBJECTIVES

The specific objectives of the present study are:

- To study the purpose and utilization of e-resources.
- To identify the electronic gadgets used for accessing e-resources
- To identify awareness of different types of electronic resources in engineering education and to find out the availability and usage of these e-resources by the faculty members.
- To find out the difficulties faced by the users while accessing and using e-resources and to study the level of satisfaction of users of e-resources.
- To suggest suitable recommendations to improve facilities and services related to the use of e-resources.

### METHODOLOGY

To fulfill the objectives of the study, a detailed, well-structured questionnaire was prepared and distributed to the staff members of 15 Engineering Colleges in Kerala. Colleges selected were started in 2002 or earlier, considering proportionate representations geographically from Government, Aided and self-financing Colleges. 25 questionnaires were distributed to each of these colleges and out of 375 questionnaires distributed, 240 valid filled in questionnaires were collected. The data was analyzed, tabulated, interpreted and presented in this paper using simple percentage technique.

### DATA ANALYSIS

The analysis and interpretation of the data collected through the questionnaires distributed to the faculty members of various engineering college in Kerala is given below.

**Table 1: Frequency of accessing e-resources**

Frequency	Number of Respondents	Percentage
Daily	68	28.33
Once in two days	37	15.42
2 or 3 days in week	42	17.5

Once in a week	72	30
More than one week	21	8.75

Table 1 shows the result that majority of the faculty members are using e-resources at least once in a week. Only very few are using e-resources occasionally.

**Table 2: Purpose of Using E-resources**

Purpose	Number of Respondents	Percentage
Teaching	240	100
Research	149	62
General Information	96	40
Career Advancement	60	25

From Table 2, it is observed that all the faculty members are using e-resources for teaching purposes. Apart from that faculty members are also using the e-resources for their research purpose (62%), 40% of the faculty members are using for general information and 25% for career advancement.

**Table 3: Electronic Gadgets used for accessing e-resources**

Electronic Gadget	Number of Respondents	Percentage
Desktop computer	212	88.33
Laptop	124	51.67
Netbook	12	5
Tablet Computer	8	3.33
Mobile Phone	95	39.58

It can be inferred from Table 3 that most of the faculty members (88.33%) are using desktop computers for accessing e-resources. Followed by that, Laptop and Mobile phones are also used by the faculty members for the same purpose. But very few are using Netbook and Tablet computer for accessing e-resources.

**Table 4: Awareness and Availability of e-journal packages**

Publishers	Awareness about e-journal package in %	Availability of the packages in %	Ranking based on Usage
IEEE	100	96	1 (95%)
ASME	93	88	5 (83%)
ASCE	92	88	6 (82%)
ASTM	86	85	7 (80%)
ELSEVIER	96	94	2 (93%)

SPRINGER-LINK	96	91	3 (89%)
J-GATE	89	88	8 (65%)
WILEY-BLACKWELL	35	23	9 (22%)
McGraw Hill - AEL	92	88	4 (85%)

Data presented in Table 4 indicate the awareness and availability and usage of e-journal packages among the faculty members. Almost all packages are well known to all faculty members and these packages are available in most of the colleges. Regarding the usage of e-resources some of the packages are not much used by the faculty community.

**Table 5: Barriers in Accessing E-Resources**

Barriers	Often (in %)	Sometimes (in %)	Never (in %)
Required password not known	51	39	10
Access has been restricted to campus only	62	32	6
Virus	34	48	18
Library does not subscribe the required titles	18	56	26
Slow due to poor bandwidth	8	58	34
Don't know how to search	2	34	64
Lack of time	22	55	23
Limited Access to computers	13	16	71
Difficult to find relevant information	9	24	67

Table 5 indicates that main barriers often faced by the faculty members while accessing e-resources are restricted access in the campus, required password not known, virus problem and lack of time. Along with that sometimes poor bandwidth and lack of library subscription of the required titles also affect the user community.

**Table 6: level of satisfaction of users of e-resources**

Statement	SA	A	N	D	SD
The Library provides me required e-resources always	24%	42%	18%	10%	6%
The Library has adequate e-resources access facilities	32%	38%	10%	12%	8%

SA – Strongly Agree      A-Agree      N-Neither Agree nor Disagree      D-Disagree  
SD-Strongly Disagree

Table 6 depicts that most of the faculty members are satisfied with the e-resources available and facilities for accessing the e-resources. But at the same time some of the faculty members find it difficult to get the required e-resources and facilities for accessing the same.

## RECOMMENDATIONS

Based on the findings of the study the following recommendations are made:

- The library must conduct training programs for faculty members at regular intervals on the use of the electronic resources effectively. Display of content page of the e-journals can be added to the library website home page for attracting faculty members and thereby increasing its usage.
- Digital library management software is needed to manage the digital documents and it will help the users to access the e-resources even from outside the campus and it also helps to solve the issues regarding the password of accessing different e-resources.
- More funds should be allocated for subscribing to more e-resources for the benefit of the user community.
- Suggestions from the users must be asked for before purchasing the e-resources. It will help to have a collection of only relevant e-resources and increase the satisfaction level of users.
- Computers with latest configurations should be made available in the library and the departments for speedy access to e-resources by the faculty members. Along with that speedy connection should be provided for solving the issue of slow access. Latest anti-virus packages are also needed to protect the systems and the digital contents from computer virus.

## CONCLUSION

The study explored the awareness and utilization of electronic resources and related matters among the faculty members of Engineering Colleges in Kerala. The rapid growth of information and communication technologies, particularly internet and electronic resources has facilitated the convergence of new electronic devices and formats. It changed the traditional methods of search, storage, retrieval and communication of scholarly information. Latest Information has been embedded in a variety of ways and forms in various kinds of electronic resources. Nowadays Faculty members are heavily dependent on e-resources for their required information and to keep themselves up-to-date in their subject area. So the role of libraries in this age of e-resources has increased tremendously, particularly in providing training and guidance to use authentic and relevant information to the users. For this purpose libraries should develop new and necessary tools to provide better services to their user- community.

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