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## USE AND IMPACT OF E-RESOURCES MANAGEMENT IN SELECTED ENGINEERING COLLEGES IN RAMANATHAPURAM DISTRICT

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### Abstract :

*Today availability of e-resources in a university library is very common. But their proper and maximum use is a matter for discussion. The present paper examines the existence of various e-resources and services are available in some selected Engineering Colleges Library at Ramanathapuram District. The study also highlights different types of electronic resources used by students and faculty members of Engineering Colleges for the purposes and frequency of using electronic resources and the problems faced by the faculty members, research scholars and students while accessing and using the electronic resources in the library.*

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### KEYWORDS :

E-resources, Engineering College Library, E- resource Management.

### INTRODUCTION:

Information technology has made a profound impact on availability and accessibility of e-resources. Impact on availability and accessibility of e-resources. To provide quick and comprehensive access to resources by using best possible tools and techniques is the ultimate aim of every library. Multiple resources in the present electronic environment can be seamlessly integrated with a single login gateway which makes it user friendly. Among all academic electronic resources, the advent of electronic journal has been called the greatest revolution in the capture and dissemination of emerging academic knowledge. Elsevier who is forerunner in production of e-resources and one of the largest publishers of scholarly journals had realized much earlier that the advent of e-resources is tidal wave of future. Accessibility to limited resources which used to be satisfying during 1970s and 1980s is too inadequate in the present environment to cope up with the exponential growth of literature. Today, e-resources are in abundance, available individually or through package deals from the various publishers. Most of the academicians today have become Internet dependent. It is the contribution of information and communication technology and impact of Internet that information processing, storing, searching, dissemination and use have become expeditious, easy and user-friendly. Today, digital technology is available at our doorstep, capable of effectively creating and capturing information in various formats, making these available to others<sup>2</sup>. E-resources are available with increased accessibility beyond time and space restrictions, restricting information users to visit physical libraries. This technology has fulfilled the long dream of Charles Jewett who had conceived the idea of universal library more than a century ago.

Progress in computer applications during the past few decades have brought radical changes in the way information is gathered, stored, organized, accessed, retrieved and consumed. The application of computers in information processing has brought several products and services to the scene. 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 meeting information needs. This is very important for engineering college libraries since most of them call for more and more research work. This important fact is convincing many libraries to move towards digital e-resources, which are found to be less expensive and more useful for easy access. This is especially helpful to distant learners who have limited time to access the libraries from outside by dial-up

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access to commonly available electronic resources, mainly CD-ROM, OPACs and internet, which are replacing the print media. As the amount of money spent on electronic resources increases, it seems fitting that as librarians to examine the process and use for selecting such materials. Collection development policies for print collections and ordering processes for such materials have become commonplace at many, if not all, academic libraries. As the transfer from paper to electronic resources occurs, especially in the acquisition of serial titles, we felt it necessary to examine the process we and other academic libraries use to select electronic resources

## LITERATURE REVIEW

The publication of literature in e-resources has made it necessary to think about the present research work. The researcher to determine the topic of research and narrow it down to specific area to carry out the research has reviewed number of articles. Only a few important studies have been included here, which provide the background for this present research work.

Wills has explained that the electronic publishing needs a strong input of marketing thinking. Technological hype has created a sales fetish, which has a little evidence to support its claims. The substantive benefits when a broader perspective is taken consideration for the authors and readers are very significant, including considerably faster publication and much wider dissemination via Internet.<sup>1</sup>

Singh and Rowland have opined that the librarians and information workers obviously are interested in electronic journals as a means of providing information to their customers. At the same time, members of the profession are becoming increasingly interested in accessing electronic journals that relate to their own specialist concerns.<sup>2</sup>

Brains has proposed that they are in the early stages of an information revolution, which will have an effect similar to that of the industrial revolution of the last century. He looks at the development of electronic news production, the technology required and in particular about the services to shipping offered by IMC Ltd.<sup>3</sup>

Woodward et.al. have advocated that great deal has been written about the potential for electronic publication over the past five years. However, technology rather than being led by demand, has driven much of the research about electronic publication. The particular focus at South Borough University has been on the potential for network distribution of scholarly research journals.<sup>4</sup>

McKiernan has opined that the biomedical journal would transmit and maintain, in both permanent online and downloaded archives, reports in the many fields that constitute biomedical research, including clinical research, cell and molecular biology, medically-related behavioural research, bio-engineering, and other disciplines allied with biology and medicine.<sup>5</sup>

## SIGNIFICANCE OF THE STUDY

Today libraries are undergoing transformation, on one side they are facing three major challenges –Shrinking budgets, shortage of space and increasing cost of publications and on the other side are the challenges posted by advances in the field of information and communication technology. The remarkable growth of electronic information in the last few decades has changed the scenario and has solved the problem of space. Electronic resources play a vital role in the field of science and engineering studies. Electronic access to technology journals has become important and valuable tool for researchers, students and faculty. The user community is becoming more and more familiar with these tools and now they have started using them very regularly. The Ministry of Human Resource Development (MHRD), has set up the “Indian National Digital Library in Science and Technology (INDEST) consortium.” “The INDEST Consortium would, directly or indirectly, benefit most of the engineering and technical institutions in India. The access to e-resources for the beneficiary institutions under the INDEST Consortium has increased from the present level of access to ejournals from 100 to 500 to more than 4000 journals in case of IITs and IISC which is comparable to world class institutions like MIT”(Arora and Agarwal,2003)

Maintaining these systems with the collection necessitate development and collection management of electronic activity. Hence the objective of the study can be enumerated as:

- To determine the category of the online users of full text material.
- To determine in which type of institutions online full text resources are used more
- To identify the mode of accessing online resources
- To identify the reasons for using e-mail alerts
- To determine the most preferred search terms for accessing online full text resources
- To find out the type of search engine used to access online full text resources
- To determine the preferred format for accessing full resources and reading, figures and images
- To determine the views of the users regarding the payment for viewing the material.
- To identify the problems of online access

## STATEMENT OF THE PROBLEM

The role and function of present day engineering college libraries are as multimedia centers due to the adoption of technical advances. The present study has been undertaken by the investigator to determine the strength and weakness of e-collection of different engineering college libraries of Ramanathapuram city and to suggest possible solution for the improvement of e-resources in these libraries. It has made access to information easier, in this sense that all digital

information, such as database of full text journal, articles, etc. can be accessed through computers on the networks both at place of work and at home. The concept of electronic library gave a new dimension to the libraries and it is the time of gradually electronic library with e-collection.

In this survey, the investigator has tried to find out the planning, policies and strategies adopted by engineering colleges libraries of Ramanathapuram district for develop of e-collections. All the libraries are well established and serves as an important function in supporting co-operative collection development, protect the library from illegal and unethical pressure, guides in allocation of budget, etc. Here it is tried to find out these policies, practices and procedures adopted by libraries under study for the development and management of e-resources.

**SCOPE AND LIMITATION**

The survey has taken only electronic collection of the libraries into the ambit of its scope. This study covers only the engineering colleges libraries in Ramanathapuram District for evaluation e-collection of e-resources. To take up this study the investigator adopted the questionnaire method for collecting data from the engineering college libraries of Ramanathapuram. Questionnaire was structured consisting of ten different sections namely Details of the Faculty Members, Subscription pattern of e-resources, Types of e-resources, Subscription pattern of e-resources, Accessing e-mail alerts, Mode of Accessing e-resources, Search Techniques, Problems of search, Payment for E-resources and Usefulness of E-resources. To elicit pertinent data, relating to the present survey, a total number of 475 questionnaires were distributed personally by the investigator among the libraries of engineering college libraries. It is pertinent to mention here that, some of the question in the questionnaire remained unanswered for the reason best known to them. As the present study is a time bound the investigator state the answer and interpretation of with as much by data as supplied.

**Background Information of Engineering Colleges situated in Ramanathapuram District**

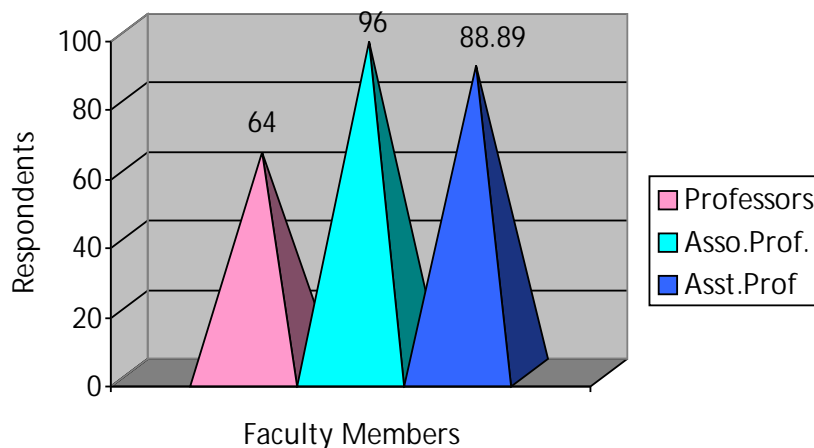
The research area was chosen to conduct the survey i.e. Mohamed Sathak Engineering College, Syed Ammal Engineering College, Ganapathy Chettiar College of Engineering and Technology and Anna University College of Engineering.

**DATA COLLECTION METHOD**

To determine the feasibility of the study, the researcher conducted a pilot study. A questionnaire was designed and distributed to 475 samples consisting of Professors, Associate Professors and Assistant Professors of four different institutions. The pilot study revealed that study is feasible and certain modifications were made in the questionnaire. The final questionnaire has contained various segments and it contained various type of information. The hypothesis framed was based on objectives of the study. The collected data has been tested by using a C++ programming language.

**Table 1**  
**Distribution of the questionnaire verses responses**

S.No.	Sample Vs status	Distriuted	Responded	% of responding
1.	Professor	125	80	64
2.	Associate Pr ofessor	125	120	96
3.	Asst.Profesor	225	200	88.89
Total		475	400	84.21



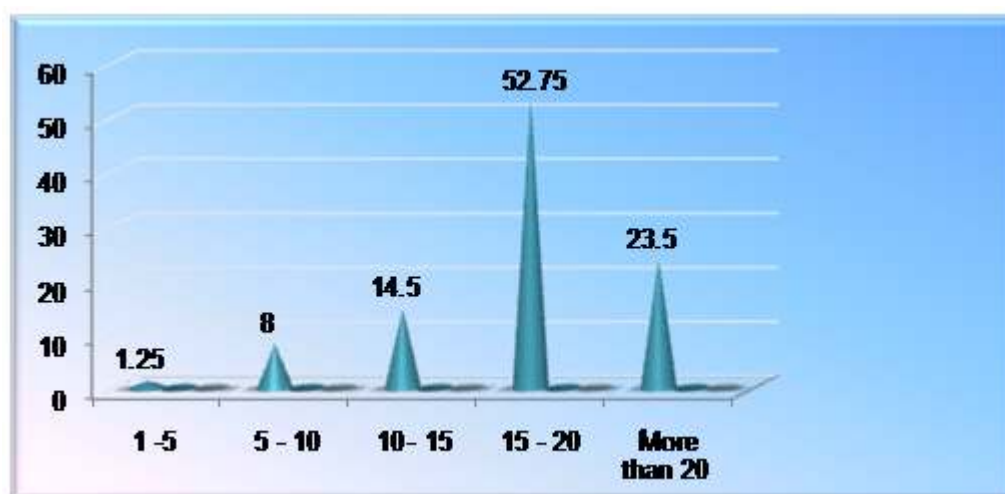
It is evident from the above table that among 125 Professors only 80 responded. Similarly 120 Associate Professors out of 125 and 200 out of 225 Assistant Professors also responded.

### Data Analysis and Interpretation

The data collected was shown using tables and charts. The tabulated data was analysed and necessary inferences are drawn from it.

**Table 2**  
**Frequency of reading e-resources per month**

S.No	Number of e-resources read	Professors	Associate Professors	Assistant Professors	Overall %
1.	1 – 5	0	0	5	1.25
2.	5 – 10	9	5	18	8
3.	10 – 15	14	7	37	14.5
4.	15 – 20	41	73	97	52.75
5.	More than 20	16	35	43	23.5

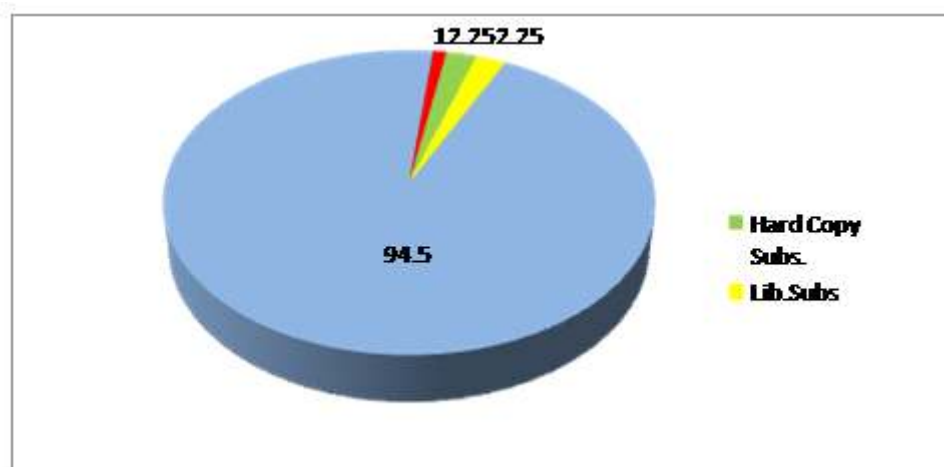


### FREQUENCY OF READING E-RESOURCES PER MONTH

From the above bar graph 1.25% of the faculty members prefer to read  $\leq 5$  e-resources per month, whereas 8% prefer 5 - 10 e-resources, 14.5% prefer 10-15 e-resources and 23.5 % prefer to read more than 20 e-journals a month. Majority of faculty members ie, 52.75% prefer to read 15–20 e-journals a month. So, overall 76.25 % of faculty members think that reading 15 or more e-resources in a month will be a good option.

**Table 3**  
**Types of subscription of e-resources**

S.No	Type of Subscription of the e-resources	Professors	Associate Professors	Assistant Professors	Overall %
1.	Personal Subscription to the printed edition of e-resources	6	2	1	2.25
2.	Library Visit to browse and get a photocopy	1	5	3	2.25
3.	Institutional On-line subscriptions	70	112	196	94.5
4.	Personal On-line subscriptions	3	1	0	1

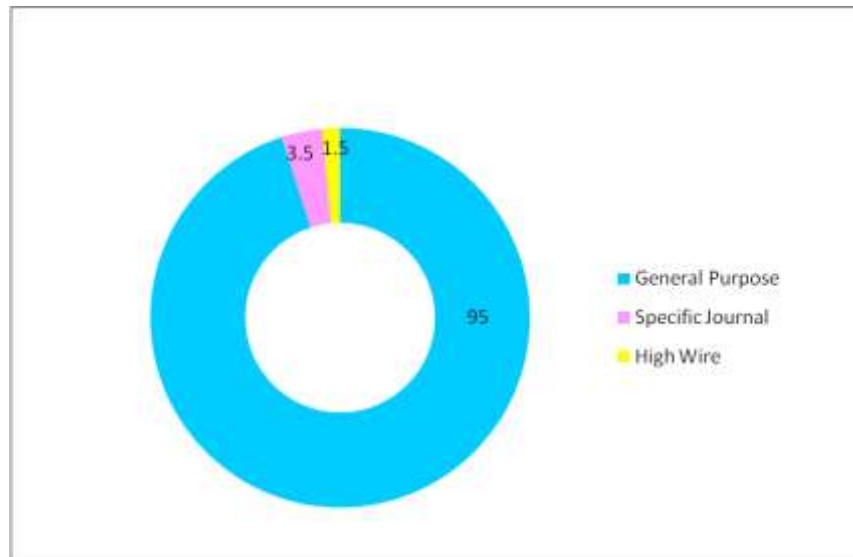


#### TYPES OF SUBSCRIPTION OF E-RESOURCES

Above pie chart shows the different methods of getting scientific subscriptions of e-resources by the faculty members. Out of the 400 samples, 378 nearly 94.5 % prefers the Institutional on-line subscriptions. Only 9 out of 400 (2.25%) of the samples prefer personal subscriptions to the printed edition, 1% of the samples 4 out of 400 prefer personal on-line subscriptions and 9 out of 400 (2.25%) prefer to visit library to get a photocopy.

**Table 4**  
**Type of search engines preferred**

S.No.	Search engine preferred	Professors	Associate Professors	Assistant Professors	Overall %
1.	General Purpose Search Engine (Eg. Google, Yahoo etc.)	74	108	198	95
2.	Specific Journal's Website	4	8	2	3.5
3.	High Wire press's Multi-journal websites	2	4	0	1.5

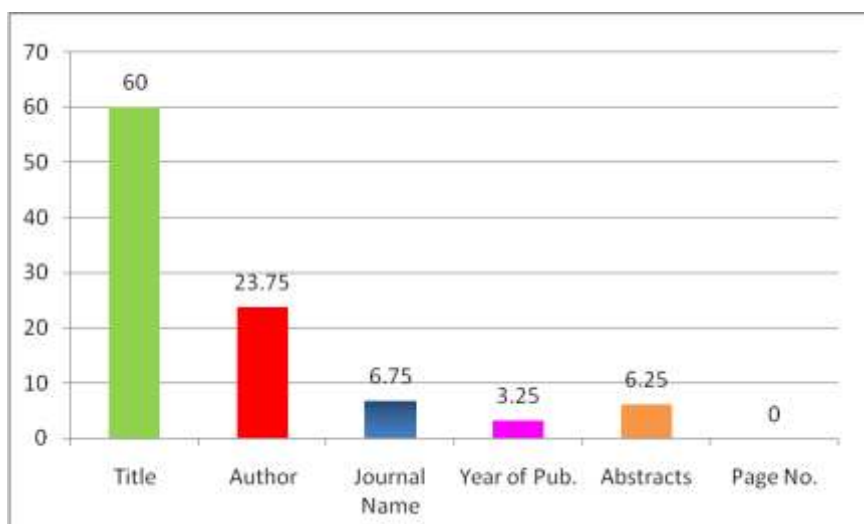


**TYPE OF SEARCH ENGINES PREFERRED**

The above pie diagram gives the type of search engine preferred during the access of on-line e-resources. Out of the 400 samples given only 380 samples ( 95%) prefers the general purpose Search engine like Google , Yahoo etc. Only 20 samples of 400 (ie.,5 %) prefer any one of the other options available. The above bar graph clearly indicates their option. Their preference of choice is only general purpose search engine.

**Table 5**  
**Key word search preferred**

Search term preferred during searching	Professors	Associate Professors	Assistant Professors	Overall %
Title	54	65	121	60
Author	21	31	43	23.75
Journal Name	3	10	14	6.75
Year of Publication	0	5	8	3.25
Abstracts	2	9	14	6.25
Page Number	0	0	0	0

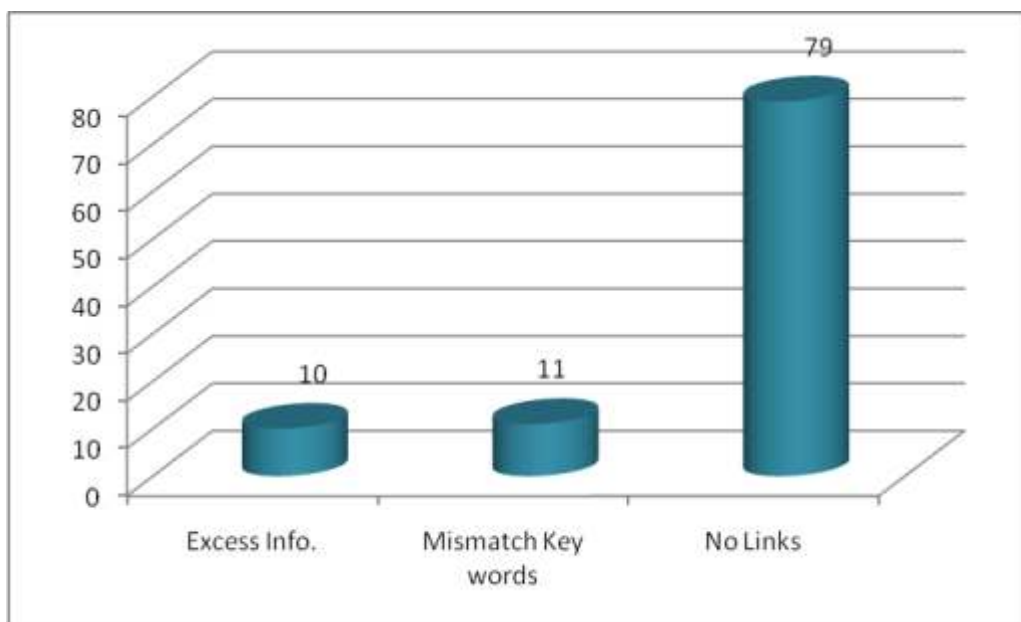


**Key word search preferred**

Above bar diagram is the research analysis of the search term preferred by the samples while searching the information On-line. Title is the most preferred term used while searching information On-line while page number seems to the least preferred. Out of the 400 samples, 60 % of faculty members prefer searching the e-resources using the title option. Search by authors name is preferred by 23.75%, journal name by 6.75% , year of publication by 3.25 % and by abstracts is 6.25 % . None of the faculty members want to search using page number.

**Table 6**  
**Type of problems while searching on-line e-resources**

Type of problems while searching on-line e-resources.	Professors	Associate Professors	Assistant Professors	
Excess information	9	19	12	10
Key words does not match accurately	7	15	22	11
Search engines does not provide links to related documents	64	86	166	79

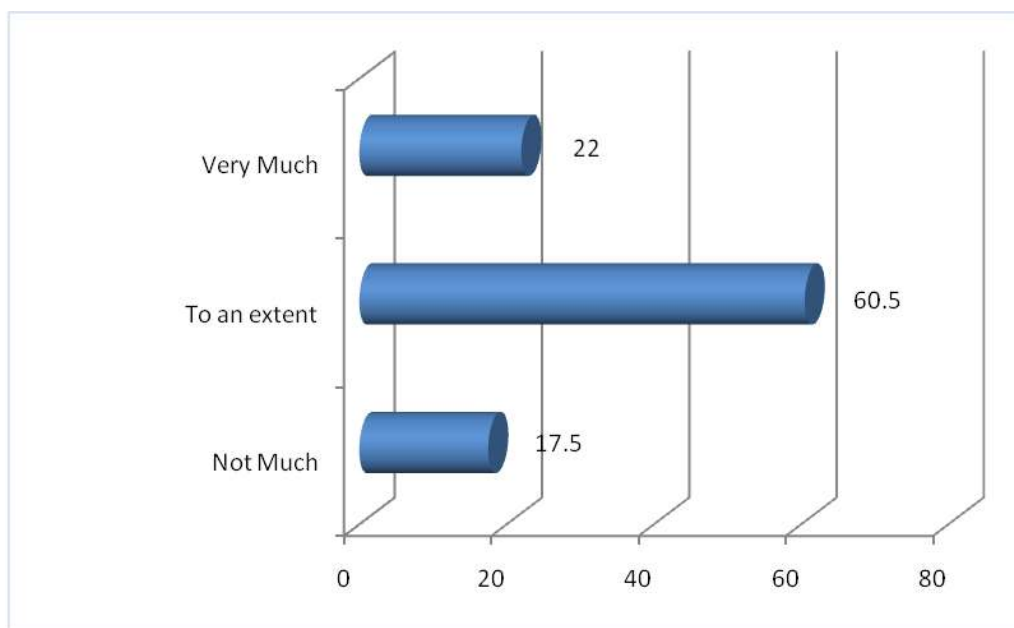


**TYPE OF PROBLEMS WHILE SEARCHING ON-LINE E-RESOURCES**

The above bar graph shows the analysis of the different types of problems occurred while searching on-line e-resources. Search engines do not provide links to the related documents while reading e-resources is the main reason cited by the samples. Out of 400 faculty members, 79% think that the above reason is the main obstacle while browsing, whereas 10% believe that excess information displayed is a problem to access the correct information and 11% think that search keywords are not very accurate.

**Table 7**  
**Usefulness of e- resources**

	Usefulness of e-resources	S.No	Professors	Associate Professors	Overall %
1	Very much Useful	12	28	48	22
2	Useful to an extent	48	67	127	60.5
3	Not much useful	20	25	25	17.5



**USEFULNESS OF E- RESOURCES**

Above is the research analysis of the usefulness of information from e-resources preferred by the samples. Information retrieved from e-resource to the work is useful to an extent is the most preferred . Out of the 400 samples 22% of feel that e-resources is very much useful and 17.5% feel that e-resources is of not much use to them. But majority of the faculty members 60.5% feel that e-resources is useful to an extent in the work.

**FINDINGS**

The findings were found by the researchers as follows;

It is observed that the number of e-resources read by the sample population differs, which means the designation has an impact on the reading habit of e-resources.

It is observed that the type of subscriptions of resources does not vary among the sample population.

It is found that there is no difference between the usage of search engine and the designation of faculty members

Finding exposes that the choice of keyword among faculty members is almost same.

The hyperlinks produced in the e-resources are a problem while searching, among the faculty members

The opinion regarding the usefulness of e-resources among the sample population found to be almost same.

**Inferences**

Out of 400 samples (80 Professors and 120 Associate Professors and 200 Assistant Professors) taken following are the inferences of various hypotheses considered.

It is inferred there is a difference among the designations and the reading habit of e-resources, which indicates that Associate Professors read more e-resources when compared to Professors and Assistant Professors.

More than 80% of faculty members preferred e-mail alert for subscription of individual e-resources, among them the



preference of Assistant Professors seems to be highest.

The designation seems to have no impact on the choice of search engine and it is found that almost all of them prefer Google and Yahoo as search engines.

It is interesting to note that all the faculty members search the e-resources by title of the document

Nearly 85% of Assistant Professors found that the hyperlink provided in the e-resources does not help to retrieve relevant documents.

Almost all the faculty members found that the e-resources are quite useful for their work.

The study pointed out that the number of e-resources read, browsed differs away sample population, which designates the difference in the habit of browsing and reading the e-resources. The study very clearly specifies that there is an overwhelming choice for institutional one time subscription and they do not wish to spend their money for subscribing e-resources. The sample population does not have the custom of visiting library or saving the print out of the e-resources to update their knowledge. Instead of that they prefer e-mail alerts for keeping abreast of the new findings in their specified field.

## CONCLUSIONS

This study has provided some insights regarding the use pattern of e-resources and what suggestions can be drawn from the findings. This might benefit the e-resources users, and the service providers. The study has distinctly revealed that Professors read less e-resource than the others. This may be because their knowledge regarding the availability of information in the internet may be inadequate. So the libraries should educate them about the available links in the field of engineering discipline.

The present study supports the Bradford's law of scattering. The sample population does not just stick to the specific e-resources but also seek information from the related e-resources. Hence, the libraries must send e-mail alerts about the information found in the related e-resources also.

## SUGGESTIONS AND RECOMMENDATIONS

Suggestions and Recommendations The followings are few suggestions and recommendations for the awareness of access to Internet, e-journals and e-resources usage:

The Authority should conduct training programme for Information Communication Technology

ICT application/ Internet awareness, access of E-resources, E-Books, E-journals for the users of all Engineering College Central Libraries and they should be encouraged to take part in these activities;

More computers/Terminals should be installed in the library with latest specifications and multimedia so that the users can use Internet, e-resources and e-journals and other useful services of the Internet effectively;

As the user communities have expressed their dissatisfaction towards the speed of Internet connectivity due to low bandwidth, it is recommended to establish campus wide Internet facilities with dedicated leased line facility for speedy access to Internet facility and number of nodes to the users should be increased as per requirements;

Training in electronic resources management should be offered to library staff. So that they can guide the Scholars;

The study indicates the need of orientation/workshop of e-resources for faculty members and research scholars also;

The frequently power failure is one of the major problem in the University Library. So the users are facing lots of problem in E-resources access.

To maintain their interest towards e-resources the concerned Engineering College must ensure adequate and continuous uninterrupted power supply;

To prevent misuse of Internet facilities, proper monitoring of services should be ensured as restricted sites should be blocked.

## REFERENCES

1. Wills, Mathew (1996). The in and outs of electronic publishing. *Journal of Business Marketing*, 11-(1).
2. Singh, Jagtar & Rowland, Fytton (1996). Electronic journals on library and information science. *New Library World*, 97(6).
3. Brains, Simon (1996). Electronic news: past, present & future. *New Library World*, 97(2).
4. Woodward, Hazel (1997). Electronic Journals: myths and realities. *Library management*, 18(3).
5. Mckiernan, Gerry (1997). Perspectives in electronic publishing: an open access dynamic virtual electronic journal. *Library Hi Tech News*, Emerald Publication.
6. Arora, J. ; Agarwal ,P.(2003). Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium: Consortia-based subscription to Electronic resources for Technical education system in India. In: Proceedings of CALIBER 2003 (eds.S.M.Salgar,etal.). Ahmadabad, India, INFLIBNET, pp.271-290.
7. Prangya Das et al / VSRD Technical & Non-Technical Journal Vol. 3 (2), 2012
8. Barnes, J.H. (1997). One Giant step Lead , One Small step: Continuing the Migration to Electronic Journals, *Library Trends*, 15(3), pp. 104-115.
9. Duranceau, E.F. (ed.) (1996). Old Wine in New Bottles: Defining electronic Serials . *Serials Review*, 22(1), pp.69-79.
10. Johnston, C. (2003) .Call to put research free on websites. *Times Higher Education Supplement*, December 19, p.7.

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- 11.Meadow,C.T.(1988). Back to Future: Making and interpreting the Database Industry Timeline. Database, 11(5), pp14-16.
  - 12.Mogge,D. (1998). ARL Directory Tracks Growth in E-publishing.ARL Newsletter, 196 pp.1-2
  - 13.Nazeer Badhusha, K. (2008). Digital Library Architecture. Anne Books Ltd., New Delhi.
  - 14.Taher,M.; Davis, Donal Gordon Jr.(1994).Librarianship and library science in India, Concept Publishing Company, New Delhi ,pp.108
  - 15.Ulrich's periodicals directory, (2009) .www.bowker .com/index



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