International Journal of Research in Library Science

ISSN: 2455-104X

ISI Impact Factor: 3.723

Indexed in: IIJIF, ijindex, SJIF,ISI, COSMOS

Volume 2,Issue 2 (July-December) 2016,188-200

Received: 11 Nov .2016 ; **Accepted**: 1 Dec. 2016 ; **Published**: 15 Dec. 2016 ; **Paper ID**: IJRLS-1194

AWARENESS AND USE OF DIGITAL LIBRARY RESOURCES BY FACULTY MEMBERS OF ENGINEERING COLLEGE LIBRARIES IN WARANGAL DISTRICT, TELANGANA: A STUDY

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ABSTRACT

Electronic/ Digital information resources are becoming more and more important for the academic community. The growth of engineering colleges in Telangana is quiet significant and ahead of many states of India. Digital resources are considered as important resources of teaching, research and training. Thus, digital resources in a library play a significant role in academic libraries as they are mostly tuned for the promotion of academic excellence and research.. Digital libraries support electronic learning by providing information to the users related to their educational and research purposes. In view of all these there is a need for a study to awareness about the digital resources available in engineering college libraries. The study aims at investigating the awareness and use of digital information resources among the faculty members of engineering college libraries in Warangal district of Telangana State only.

Keywords: Digital Library, e-resources, e-books, e-journals

1. INTRODUCTION

Libraries played a major role from the centuries as centers of learning and institutions of information dissemination. The primary goal of any library is to provide an effective combination of print, non-print and electronic resources to the users to meet their information requirements thoroughly. The growth of engineering colleges in Telangana is quiet significant and ahead of many states of India. In order to attract students to engineering courses and compete at global level, the engineering colleges need to maintain standards. Therefore, in the recent past considerable efforts have been put forth to develop acceptable and maintainable standards for engineering education. In this context, the role played by AICTE is laudable.

1.1 DIGITAL LIBRARY AND DIGITAL RESOURCES

A digital library is a distributed electronic collection that covers virtually all fields of human endeavor to serve a defined community. The basic idea of digital library is to provide universal access to digitized information throughout the world.

Digital libraries play a significant role in engineering libraries as they are mostly tuned for the promotion of academic excellence and research. Therefore e-information is a key element for any research and development work.

Digital resources usually consist of e-books, online journals, online databases, institutional repository, OPAC and Web OPAC, websites, e-images, e-news, e-thesis and e-dissertation, CD-ROMs, DVD etc. Therefore, the resources which are available online in digital formats are called digital resources. The digital resources can be used by users through online access.

The main objective of an engineering college library is to assist engineering professionals in enhancing and updating their knowledge and skills, and to provide them information regarding new innovation, view, theories, engineering education and research. The primary role of engineering college library is to collect and organize recorded information in engineering and allied subjects to meet the needs of users.

2. NEED AND PURPOSE OF THE STUDY

The primary role of engineering college library is to collect and organize recorded information in engineering and allied subjects to meet the needs of users. Engineering college libraries in Telangana offer diverse information resources and services including SDI and end-user training. They subscribe the digital resources like e-journals, e-books, CD-Rom databases, online databases, web based resources and a variety of other electronic resources. The electronic information resources have acquired a major portion of library collections. Therefore, there is necessity to make study on the different aspects of e-resources and the issues relating to the use of e-resources by users, more particularly by the faculty members of academic institutions. Therefore, a need was felt to conduct a study to assess the **Awareness and Use of Digital Library Resources by Faculty Members of Engineering College Libraries in Warangal District, Telangana**

3. OBJECTIVES OF THE STUDY

The study aims at achieving the following objectives.

(i) To identify the Engineering college libraries providing Digital Library resources and services.

(ii) To study the various types of digital library resources and services.

(iii) To know the awareness and use of different types of digital library resources.

(iv) To study the purpose and utilization of the digital library resources.

(v) To find out the problems faced by the faculty members while accessing and using digital library resources

4. SCOPE OF THE STUDY

To make it viable, the scope of the present study is limited to know the Awareness and Use of Digital Library Resources among the faculty members of engineering colleges located in Warangal district, Telangana state only. There are 22 numbers of engineering colleges in Warangal but a few of them are established digital library in their libraries. The study concentrates only on the engineering libraries which are providing digital library services to their users. Based on the year of establishment and availability of digital library resources I have selected only 10 Engineering colleges in this study.

The following engineering colleges are selected for the study..

SL. NO	NAME OF THE ENGINEERING COLLEGE	AFFILIATION	YEAR OF ESTABLISHED
1	KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE	KU	1980
2	VAAGDEVI COLLEGE OF ENGINEERING	JNTU-H	1998
3	CHRISTU JYOTHI INSTITUTE OF TECHNOLOGY AND SCIENCE	JNTU-H	1998
4	BALAJI INSTITUTE OF TECHNOLOGY AND SCIENCE	JNTU-H	2001
5	JAYAMUKHI INSTITUTE OF TECHNOLOGY AND SCI.S	JNTU-H	2001
6	S R ENGINEERING COLLEGE	JNTU-H	2002
7	SVS GRP OF INSTNS - SVS INST OF TECHLOGY	JNTU-H	2008
8	KU COLLEGE OF ENGINEERING AND TECHNOLOGY	KU	2009
9	WARANGAL INSTITUTE OF OF TECHNOLOGY SCIENCE	KU	2009
10	CHAITANYA INST OF TECHNOLOGY AND SCIENCE	KU	2010

KU: Kakatiya University JNTU-H: JNTU Hyderabad

5. METHODOLOGY

The survey method was used to collect primary data on this research investigation. The data is collected through a structured questionnaire was prepared keeping in mind the objectives of the study. These questionnaires were distributed to the libraries and the faculty members of selected 10 engineering colleges in Warangal district of Telangana State. The questionnaires were distributed to the faculty in person and were collected from them by giving sufficient time to fill up the questionnaire. The collected data were tabulated and analyzed with the applications of simple statistical tools.

6. DATA ANALYSIS

6.1 Distribution of Questionnaires and response rate

The distribution of faculty members according to the number of questionnaires distributed and the response received is shown in Table 1.

Table-1: Institution-Wise Distribution of Questionnaires and Response rate

SL. NO	Name of the Engineering College	Distribution of Questionnaires	No. of Respondents	Response Percentage
1	KAKATIYA INSTITUTE OF TECHNOLOGY AND SCIENCE (KITS)	40	33	82.5
2	VAAGDEVI COLLEGE OF ENGINEERING (VAGE)	40	32	80
3	CHRISTU JYOTH INSTITUTE OF TECHNOLOGY AND SCIENCE (CJIT)	40	29	72.5
4	BALAJI INSTITUTE OF TECHNOLOGY AND SCIENCE (BITS)	40	36	90
5	JAYAMUKHI INSTITUTE OF TECHNOLOGY AND SCIENCE (JITS)	40	32	80
6	S.R ENGINEERING COLLEGE (SREC)	40	36	90
7	SVS INSTITUTE OF TECHNOLOGY (SVST)	40	35	87.5
8	KU COLLEGE OF ENGINEERING AND TECHNOLOGY (KUCE)	40	28	70
9	WARANGAL INSTITUTE OF TECHNOLOGY AND SCIENCE (WITS)	40	32	80
10	CHAITANYA INSTITUTE OF TECHNOLOGY AND SCIENCE (CITS)	40	37	92.5
TOTAL:		**400**	**330**	

It is evident from Table-1 that out of 400 faculty members a majority 330 faculties has responded for filling the questionnaires.

6.2 Gender-Wise Distribution of Questionnaires and Response Percentage

The questionnaires were distributed among faculty members and collected filled in questionnaires form them and presented details in following **Table-2.**

Sl. No	Gender	Distribution of Questionnaires	No. of Respondents	Response Percentage	Percentage
1	Male	230	191	47.75	57.88
2	Female	170	139	34.75	42.12
Total:		**400**	**330**	**82.5**	**100**

Table-2: Gender-Wise Distribution of Questionnaires and Response Percentage

Table-2 and Figure-1 represents the gender wise distribution of the questionnaires and response rate. A total number of 400 questionnaires were distributed among the 230 male and 170 female faculty members. Out of 400 only 330 questionnaires were received back so the response percentage is 82.5.

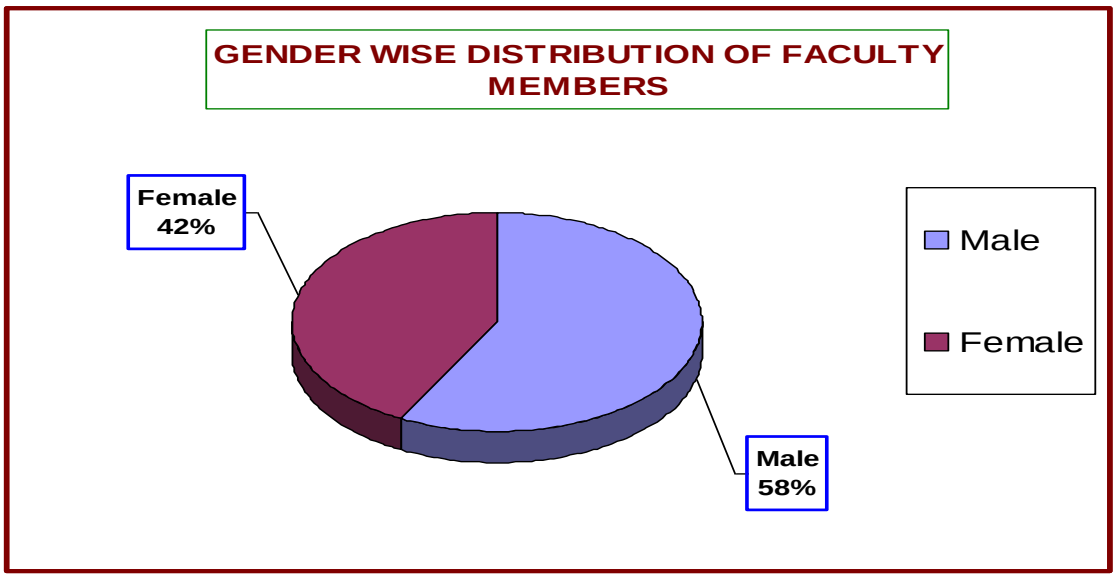

Figure-1: **Gender-Wise Distribution of Participants**

Figure-1 represents the gender wise distribution of the respondents. Out of 330 faculty members 191(58%) were male respondents and 139 (42%) were female respondents. It is clear that the study got more respondents from male faculty.

6.3 Awareness of Digital Resources

The distribution of faculty members according to the awareness of digital resources is shown in Table-3.

Sl. No	Awareness of Digital Resources	No. of Respondents	Response Percentage
1	YES	305	92.42
2	No	25	7.58
Total:		**330**	**100**

Table-3: Awareness of Digital Resources

It is evident from Figure-2 that Majority of the engineering faculty members (92.42 %) are aware about the digital resources, where as only 7.58 % faculty members are not aware of such resources.

6.4 Frequency of use of Digital Resources by the Faculty Members

The distribution of faculty members according to their frequency of using the digital resources is shown in Table-4.

Frequency	No. of Respondents	Percentage (%)
Daily	168	50.91
Once in a Week	82	24.85
Once in a Month	52	15.76
Rarely	28	8.48
Never Use	0	0.00
Total	**330**	**100**

Table-4: Frequency of use of Digital Resources by the Faculty Members

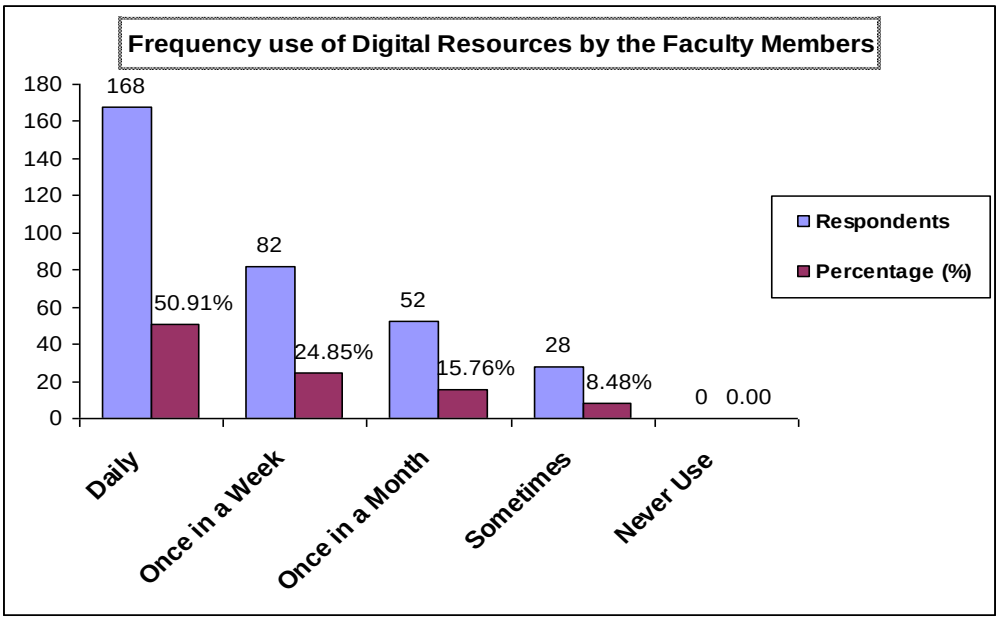

Figure-2: Frequency of use of Digital Resources by the Faculty Members

It is evident form Table-4 and Figure-2 that 168 (50.91%) faculty members are using digital resources daily, followed by 82 (24.85%) members are using once in a week, 52 (15.76%) faculty members are using once in a month and remaining 8.48 % of the faculty members are using digital resources rarely.

6.5 Purpose of using Digital Resources

The purpose of using digital resources is varying form user to user based on their general and specific information needs. The purpose of using digital resources by the respondents is given in Table-5.

Purpose of using Digital Resources	**No. of Respondents**	**Percentage (%)**
For communication	145	43.94
To update knowledge	131	39.70
Teaching and research work	172	52.12
To collect subject information	285	86.36
For career development	28	8.48

(Multiple Responses were permitted)

Table-5: Purpose of using Digital Resources

It is evident form Table-5 that 86.36% of the faulty members indicate that the digital resources are used for collect the subject information purpose, 52.12 % to teaching and research work purpose, 43.94 % used for communication purpose, 39.70 % of the faculty members are using digital resources to update their knowledge and 8.48 % of the faculty members are using digital resources for their career development.

6.6 Location of Browsing Digital Resources

Browsing Location	**No. of Respondents**	**Percentage (%)**
From the Library	282	85.45
From the computer Center/Lab	192	58.18
From the department	33	10.00
At home	86	26.06

(Multiple Responses were permitted)

Table-6: Location of Browsing Digital Resources

Table-6 shows that mostly the 85.45% of respondents browsing digital resources from the digital library, 58.18% of respondents browsing digital resources from the computer center and 26.16% of respondents browsing from their departments. Very less number of respondents (10%) was browsing digital resources at home.

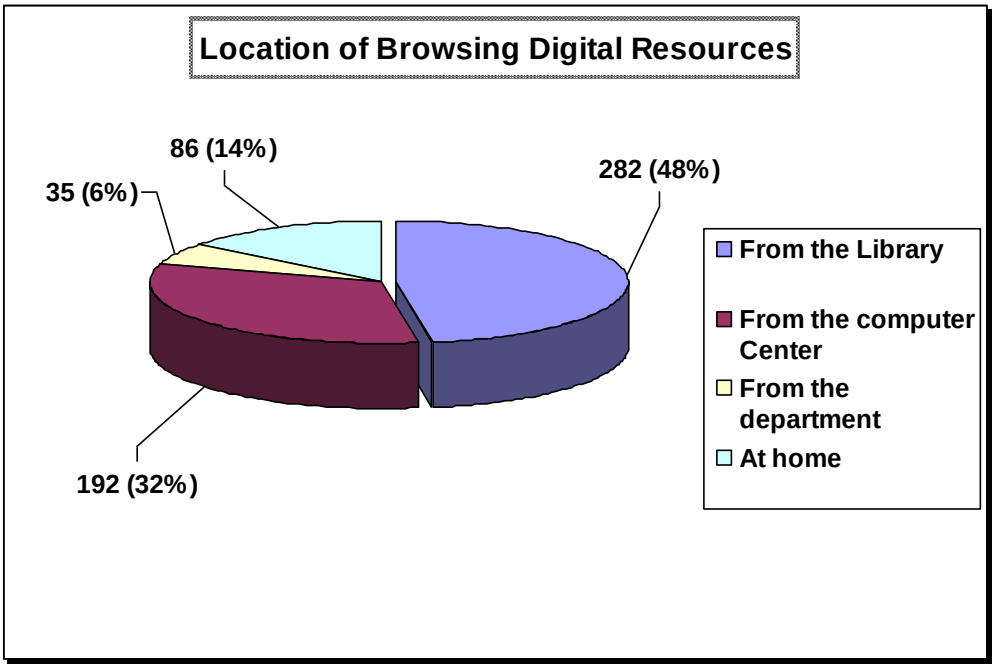

Figure-3: Location of Browsing Digital Resources

6.7 Access and Use of Digital Resources

Sl. No	Type of Digital Resources	No. of Respondents	Percentage (%)
1	E-Journals	272	82.42
2	E-books	131	39.70
3	E-News paper	85	25.76
4	E-zines	25	7.58
5	Online Databases	91	27.58
6	E-thesis and projects	96	29.09
7	Internet	251	76.06
8	OPAC	166	50.30
9	CD-ROM	109	33.03

Table-7: Access and Use of Digital Resources

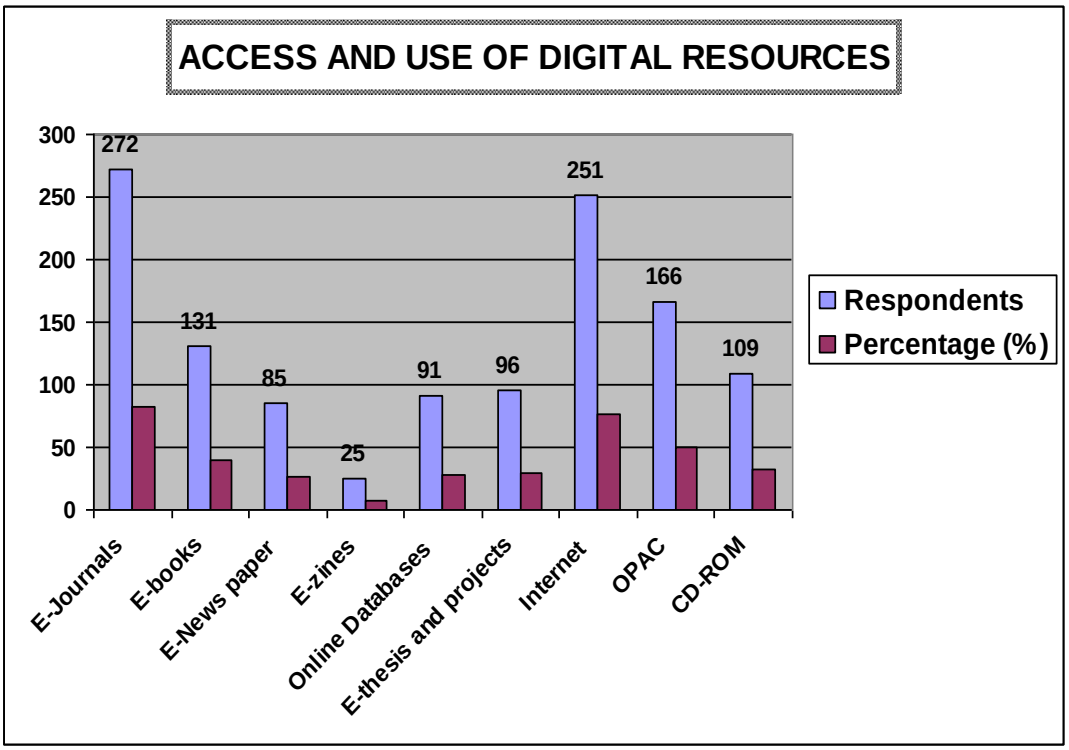

Figure-4: Access and Use of Digital Resources

Table-7 and Figure-4 shows the use of digital resources by the respondents. It is revealed that there is maximum i.e. 82.42% respondents use E-journals followed by Internet is used by 76.06% respondents. 50 % of respondents use library OPAC followed by E-books are used by 39.70% respondents. The least use is for E-zines 7.58% only.

6.8 Awareness of Different types of Digital Resources

Sl. No	Awareness of Digital Resource	Response	Percentage
1	IEEE	152	46.06
2	Springer link	45	13.64
3	INDEST-AICTE	132	40.00
4	DELNET	285	86.36
5	NPTEL	189	57.27
6	Proquest	30	9.09
7	J-Gate	98	29.70
8	EBESCO	85	25.76
9	Open Access Journals	233	70.61
10	ASME/ASCE	103	32.12

(Multiple Responses were permitted)

Table-8: Awareness of Different types of Digital Resources

Table-8 shows that the awareness of digital resources among the respondents. It is found that majority of the respondents i.e. 86.36% are aware about the DELNET resources. 70.61% of respondents are aware about the open access journals, 57.27% aware about the NPTEL resources. 40% of respondents aware about the INDEST-AICTE resources, followed by ASME/ASCE resources 32.12% and J-Gate is 29.70%. Only few members aware about the EBESCO (25.76%) and Proquest (9.09%) digital resources.

6.9 Method of learning to browse the e-resources in digital library

The distribution of faculty members according to the method of learning to browse the e-resource in digital library as shown in Table-

Method of Learning	**No. of Respondents**	**Percentage (%)**
By self study	132	40
Guidance from the faculty	59	17.88
Guidance from the friends	61	18.48
Guidance from the library staff	78	23.64
TOTAL:	**330**	**100**

Table-9: Method of learning to browse the e-resources in digital library

It is evident from Table-9 that 40 percent of the faculty members are learning the necessary skill to use digital resources through the through the self study (reading books/journals etc.,) 23.64 percent learned through the guidance from the library staff, 18.48 percent guidance from the friends, and 17.88 percent of the faculty members are learning to use digital resources through guidance from the faculty.

6.10 Faculty opinion about the availability of Digital Resources

Sl. No	**Type of Digital Resource**	**No. of Respondents**	**Percentage (%)**
1	E-Journals	292	88.48
2	E-books	120	36.36
3	E-News paper	68	20.61
4	E-zines	12	3.64
5	Online Databases	131	39.70
6	E-thesis and projects	92	27.88
7	DELNET	115	34.85
8	INDEST- AICTE Consortium	151	45.76
9	N-LIST Programme	91	27.58
10	NPTEL	187	56.67
11	CD-ROM	99	30.00

(Multiple Responses were permitted)

Table-10: Faculty opinion about the availability of Digital Resources

Table–10 shows that the faculty opinion of availability of digital resources in their library. Out of 330 responses 292 (88.48%) of the responses indicates that the library has good E-Journal access facility followed by 187 (56.67%) are opined that the library has good NPTEL resources, 151 (45.76%) are opined that the library has a good number of INDEST –AICTE resources, 120 (36.36%) of the faculty members are opined that good collection of E-books are available in their library. Only 99 (30%) of the faculty members opined that good CD-ROM facility in their library.

6.11 Frequently Use of Digital resources by the faculty members

The below Figure-5 depicts about the frequently use of digital resources by the faculty members. Out of 330 faculty members, majority (201) of the faculties were using digital resources regularly, followed by 81 members are using occasionally and 48 faculty members are using digital resources by rarely. It is clearly shows that out of 201 regularly use of faculty members most of the faculties are using E-Journals and Delnet resources for their academic purpose and research work.

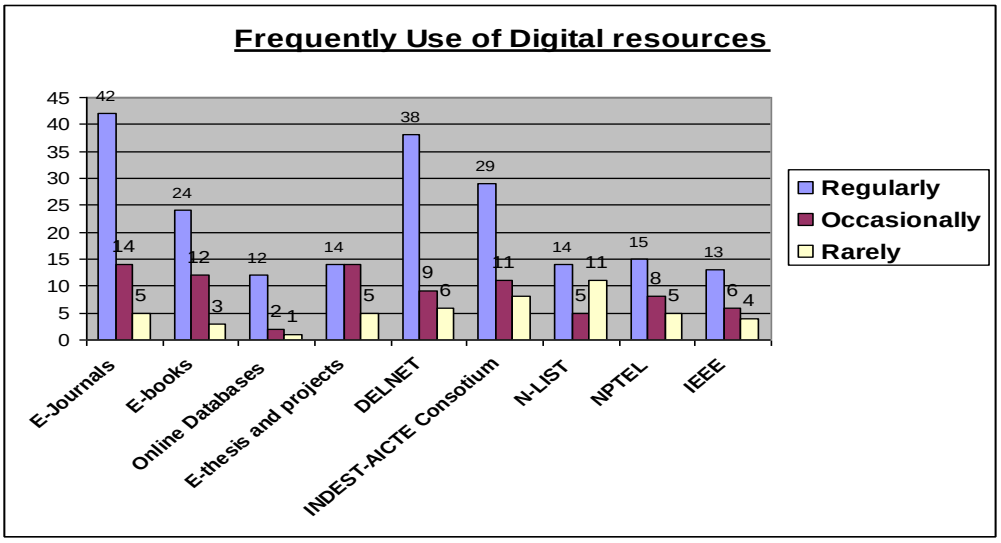

Figure-5: Frequently Use of Digital resources by the Faculty Members

6.12 Problems faced while Using Digital Library Resources

Problems	**No. of Respondents**	**Percentage (%)**
Limited Computers	85	25.76
Lack of adequate knowledge	28	8.48
Slow internet speed	69	20.91
Lack of sufficient e-resources	54	16.36
Lack of assistance by library staff	26	7.88
Lack of time	68	20.61
TOTAL:	**330**	**100**

Table-11: Problems faced while Using Digital Library Resources

Table-11 shows the problems faced while using the digital resources by faculty members of engineering colleges. Majority of the respondents 85 (25.76%) have faced limited number of computers available. It was followed by 69 (20.91%) respondents faced slow internet speed, 68(20.61%) respondents having lack of time, 54 (16.36%) respondents having lack of sufficient e-resources, 28(8.48%) respondents having lack if adequate knowledge and 26(7.88%) respondents having lack of assistants from the library staff.

6.13 Level of satisfaction with Digital Resources available in the Library

The satisfaction of the faculty members towards the availability of digital resources in their libraries is analyzed. The opinion of the faculty members on satisfaction of availability of digital resources is presented in Table-

Satisfaction Level	Response	Percentage
Satisfied	189	57.27
Fully Satisfied	46	13.94
Partially Satisfied	28	8.48
Not Satisfied	67	20.30
Total:	**330**	**100**

Table-12: Satisfaction Level of Digital Resources

Table-12 indicates that the majority of the faculty members i.e. 57.27 percent are satisfied with the availability of digital resources in their libraries. It is followed by fully satisfied by 13.94 percent of the faculty members and 8.48 % of the faculty partially satisfied with the availability of digital resources. 20.30 percent of the faculty members are not satisfied with the digital resources available in their library.

7. FINDINGS

1) Most of the faculty members 92.42% are aware about the digital resources.
2) Majority 51% of the faculty members using digital resources daily,24.85% once in a week and 8.48% are rarely.
3) 86.36% of faculty members are using digital resources for collecting the subject information and 52.12% of faculty members using for their teaching and research work.
4) Majority of the faculty members 85.45% are browsing the digital resources from their libraries and computer centers (58.18%).
5) Majority of the faculty members 82.42% are using e-journals for their academic work purpose.
6) Majority of the faculty members 86.36% and 70.61% aware about the DELNET resources and open access journals . 57.27% faculty members aware about NPTEL resources. Only few members aware about Proquest (9.09%).
7) Majority of the faculty members 25.76% have expressed limited number of computers and 20.91% are expressed slow internet speed and 20.61% expressed lack of time are the main problems for accessing digital resources.
8) 57.27%of the faculty members opined that overall satisfaction with digital resources is satisfactory, followed by 13.94% fully satisfied with availability of digital resources.

8. SUGGESTIONS:

Based on the findings of the study, the following suggestions are made to improve the awareness and use of digital library resources among the faculty members.

- Awareness of the use of e-journals and e-books to obtain current information should be created;
- More computer terminals should be installed in the library for the benefit of the maximum faculty members; and more funds should be given to acquire electronic resources.
- The speed of Internet needs to be increased for quick access to the available e-resources.
- Engineering college libraries should create awareness among the faculty members by conducting awareness programmes, such as orientation program, demonstrations, conference, seminars, through emails and notices for the optimum use of available digital resources.
- Awareness levels should be increased for maximizing the usage of online journals for procuring the current and required information.
- The speed of Internet needs to be increased for quick access of the available digital resources.
- Author has suggested that numbers of digital resources available through consortia should be increased to access more digital resources in their respective fields.
- Management should provide sufficient funds for strengthening digital resources in engineering libraries.
- The library should conduct regular evaluations and assessments to determine the effectiveness of the digital resources in meeting information needs of the users.

9. CONCLUSION

Electronic resources have played a vital role in all fields of human life. Electronic resources are creating a revolution in engineering college libraries. These have rapidly changed the way of seeking and disseminating information. It is clear from the study that the speed of availability and the ease of accessibility of information make the faculty members to use digital resources more frequently. Many of the respondents are unaware and have not used On-line thesis/dissertations, abstracts/ indexes, On-line databases, which are very relevant for their study and research. So the libraries can take initiatives to organize awareness programmes in this area. This study helps the librarian to know the importance of electronic resources in academic environment. However, all libraries have reasonable resource facilities at their end. Future studies may be conducted in other colleges and universities on awareness of electronic resources in Indian context.

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