

**Usage Pattern of Electronic Information Resources by the Engineering Students:  
A Case Study of Madanapalle Institute of Technology and Science (MITS),  
Madanapalle, Chittoor District, Andhra Pradesh**

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**Abstract** - *The Study aimed at finding the use of e-resources by the engineering students of Madanapalle Institute of Technology and Sciences, Madanapalle, Chittoor District, Andhra Pradesh. 220 questionnaires were distributed to the B.Tech. students. Out of which, 200 filled-in questionnaires were received back. A majority of the students, 24 percent used to read e-journals and e-books followed by 18 percent of respondents use internet for checking e-mails and News & local information respectively; 16 percent for e-lessons, 12 percent for Electronic Theses and Dissertations (ETD's); 8 percent for social networking and the remaining 4 percent for Entertainment. The study revealed that electronic information resources are most useful to the engineering college students.*

**Keywords:** Electronic Information Resources, Information Technology, Internet, ICT, Engineering Students.

**Introduction:**

The present century is called as Information Technology Era. The IT is playing a pivotal role in disseminating the knowledge. Libraries are providing good e-resources along with print resources. Electronic Sources have increasingly become the focus of research and development institution in the recent years. Academic libraries also could not remain behind and many academic institutions have created digital libraries for their users to access electronic journals, because accessing the web has become very convenient. Web based full text electronic journals have naturally become the most popular tools for academic library users for locating desired resources.

The electronic information resources (EIRs) have acquired a major portion of library collections. The electronic documents can be stored, accessed, and delivered as and when required. Therefore, the services of libraries are not confined within the four walls but are integrated into local, regional, national and international networks. Internet facilities provided through the networking in the libraries have been proved boon to the library clientele.

The electronic resources empower and enrich the academic system. The increased facilities in information generation has made the task of collection, organization and

retrieval of information very difficult. Alternatively, the academic libraries often prefer electronic information resources to substitute print collections for optimum use. Many reasons including physical space, escalation in journals' prices, digital literacy, discovery system, and skilled manpower force the academic and Research Centres to meet their users' demands for their academic pursuit. For that, the UGC is also encouraging colleges and universities to promote electronic information resources by supporting them financially.

### **Meaning**

The information available on electronic gadgets is called "Electronic Information Resources" which are easily stored, disseminating and retrieving.

### **The Madanapalle Institute of Technology and Science (MITS): A Profile**

There are 704 Engineering Colleges working in Andhra Pradesh, 37 are in Chittoor District. The Madanapalli Institute of Technology & Science was established in 1998. Most updated syllabus is being taught in lines with BITS, Pilani to the modern generation of students working electronically in the learning of the concepts and skills. The campus has aesthetically-designed buildings and modern workshops, labs, seminar halls sports facilities are all meant to provide the desired inputs for the overall growth and development of the students. The college is offering B.Tech. and M.Tech. programmes.

The college library has a well established equipment as well as rich collection of books and journals apart from good electronic information resources and all activities are being operated through automation using Soul Software 2.0 version. It has been recognized as the Centre of Excellence by IBM. MITS has a well established digital library with Internet facility and 150 mbps wifi campus. The library has a Digital Resources, DELNET (Developing Library Network) and INDEST-AICTE Consortium, which is consisting of 15000+ e-journals. The library will be kept open from 9.00 a.m. to 6.00 p.m. on all working days.

### **Review of Literature**

There are a number of studies related to the use of e-resources by the students and researchers of various institutions. There are many factors which affect the use of electronic information resources. The related studies discuss some of these issues. The present study is conducted in the light of the previous studies.

Sudhier and Seethalakshmi (2011) analysed the use of internet and e-resources among students and research scholars of Faculty of Arts, University of Kerala. The study reveals that internet resources are the most used e-resources among the respondents from the Arts Faculty. It is also found from the analysis of the data given by the respondents that most of the students of Arts department are not giving enough facility to use e-resources. The study of this kind is very useful for the teachers, librarians and also for the parents. The fast growth of information and communication technologies and particularly internet and electronic resources have changed the traditional method of research, storage, retrieval and communication of scholarly information.

Muthyalaiiah Chetty and Avineni Kishore (2017) discussed the effects of social media and electronic media on the reading habits of Engineering Students at Sri Kalahastiswara Institute of Technology and opined that majority 69.44 percent of the students use electronic

media and also opined that social media and also electronic media improve their online communication.

Baladhandayutham et.al.,(2014) discussed the study pattern of electronic information resources by the scholars of social sciences in Madurai Kamaaj University, Madurai and opined that most of the respondents use Google search engine for browsing the required information from the internet.

Nallathambi et.al., (2014) discussed the use of information and communication technology among the faculty members of leading engineering colleges in Namakkal District and analysed that majority of students and faculty members used electronic based information resources.

Urkalamuthu et.al., (2014) analysed the study on challenges of information seeking behaviour of Madurai Kamaraj University Scholars in Tamilnadu and revealed that academic development of the nation and hence due attention has to be paid for online information services and their utilisation.

### **Objectives**

The following are the specific objectives of the study:

1. To know the frequency of the visit, purpose of the visit and time spent in the library by the engineering college students of Madanapalle Institute of Technology and Science;
2. To know the place of access the Electronic Resources;
3. To know the purpose for usage of Internet and Electronic Resources;
4. To analyse the preference of usage of electronic resources by the students;
5. To know the advantages in referring electronic information resources by the students
6. To know the problems of students while using internet; and
7. To provide suggestions based on the present study.

### **Methodology**

For the present study, the data was collected through questionnaires. There are 220 questionnaires were distributed among the B.Tech. students of Madanapalle Institute of Technology and Science and 200 filled in questionnaires were received. The response rate was 90.9%.

### **Data Analysis**

The collected data was analyzed and the results were discussed in the following tables.

**1. Gender-wise distribution of respondents:** The distribution of students according to their gender is shown in Table No.1.

**Table-1: Gender-wise distribution of respondents**

<b>Sl. No.</b>	<b>Gender</b>	<b>No. of Students</b>	<b>Percentage</b>
1.	Male	140	70
2.	Female	60	30
	<b>Total</b>	<b>200</b>	<b>100</b>

*Source : Primary data.*

Table No.1 indicates that majority of respondents 70 percent participated in the survey are male students and the remaining 30 percent are female students. It shows that male students are more than the female respondents.

**2. Frequency of visit to the Library :** The distribution of respondents according to the frequency of visit to the library is shown in Table No.2.

**Table-2: Distribution of respondents according to frequency of visit to the Library**

Sl. No.	Frequency	No. of Students	percentage
1.	Daily	100	50
2.	Once in a week	53	26.5
3.	twice in a week	38	19
4.	Occasionally	9	4.5
	<b>Total</b>	<b>200</b>	<b>100</b>

Table No.2 shows that majority of the respondents 100 (50%) are visiting the Library daily followed by 26.5 percent of the respondents visit once in a week, 19 percent of the respondents visit twice in a week, and the remaining 4.5 percent of the respondent visit occasionally. It can be concluded that majority of the respondents (50%) visit daily which is a good sign.

**3. Purpose of the visit to the Library:** The distribution of respondents according to their purpose to visit the Library is shown in Table No.3.

**Table-3: Purpose to visit the Library**

Sl. No.	Purpose of Visit	No. of Students	Percentage
1.	To borrow books	99	18
2.	To refer Books & Journals	123	23
3.	To read periodicals and Newspapers	109	20
4.	To Search Internet Resources	82	15
5.	To use Electronic Information Resources	130	24
	<b>Total</b>	<b>548</b>	<b>100</b>

*Note: Respondents were permitted for multiple answers.*

Table No.3 explains that the majority of the respondents 24 percent preferred to use electronic information resources followed by 23 percent preferred to refer books and journals 20 percent preferred to read periodicals and News papers, 18 percent for borrowing books, and the remaining 15 percent preferred to search Internet resources.

**4. Time spent in the Library:** The distribution of students according to their time spent in the Library per day is shown in Table No.4.

**Table-4: Distribution of respondents according to time spent in the Library**

Sl. No.	Frequency	No. of Students	Percentage
1.	Less than 1	50	25
2.	1 to 4 hours	60	30
3.	4 to 10 hours	60	30
4.	More than 10 hours	30	15
	<b>Total</b>	<b>200</b>	<b>100</b>

Table No.4 describes that 30 percent of respondents spend 1-4 hours, and 4 to 10 hours per day respectively followed by 25 percent spends less than an hour and the remaining 15 percent of students spend more than 10 hours in the Library.

**5. Awareness of ICT:** The distribution of respondents according to their awareness of ICT is shown in Table. No.5.

**Table-5: Distribution of respondents according to Awareness of ICT**

Sl. No.	Awareness on ICT	No. of Students	Percentage
1.	Yes	200	100
2.	No	-	
	<b>Total</b>	<b>200</b>	<b>100</b>

Table No.5 shows 100 percent majority of the respondents aware the Information Communication Technology.

**6. Place of access the Electronic Resources:** The distribution of respondents according to their place of access of electronic resources as shown in Table No.6.

**Table-6: Distribution of respondents according to their place of accessing the Electronic Information Resources**

Sl. No.	Place of Access	No. of respondents	Percentage
1.	Library	130	37
2.	Through Internet Centre	90	26
3.	Home	73	21
4.	Smart Phones	55	16
	<b>Total</b>	<b>348</b>	<b>100</b>

*Note: Respondents were permitted for multiple answers.*

Table No.6 shows that majority of respondents 37 percent prefer Library as the place to accessing the electronic information resources. 26 percent of respondents access electronic information resources through Internet Centres; 21 percent of respondents access electronic information resources at their Home itself; and the remaining 16 percent of the respondents access through their smart phones. It is pertinent to note that the majority of respondents are utilising the library resources for their study.

**7. Purpose for Usage of Electronic Information Resources:** The distribution of respondents according to their purpose of using electronic resources is shown in Table No.7.

**Table-7: Purpose of using Electronic Information Resources**

Sl. No.	Usage of Electronic Information Resources	No. of respondents	Percentage
1.	e-journals, e-books	111	24
2.	Electronic Theses and dissertations (ETD's)	53	12
3.	e-Lessons	73	16
4.	e-mails	82	18
5.	Entertainment	19	4
6.	Social Networking	36	8
7.	News and local information	82	18
	<b>Total</b>	<b>456</b>	<b>100</b>

*Note: Respondents were permitted for multiple answers*

Table No.7 explains that majority of the respondents 24 percent used to read e-journals and e-books followed by 18 percent of respondents use internet for checking e-mails and News & local information respectively; 16 percent for e-lessons, 12 percent for Electronic Theses and Dissertations (ETD's); 8 percent for social networking and the remaining 4 percent for Entertainment.

**8. Preference of usage of Electronic Information Resources:** The distribution of respondents according to their preference for using electronic resources is shown in Table No.8.

**Table-8: Preference of using Electronic Information Resources**

Sl. No.	Using Electronic Information Resources	No. of respondents	Percentage
1.	e-Journals	56	18
2.	e-books	126	41
3.	Web pages	48	15.5
4.	Online databases	48	15.5
5.	Digital repositories	30	10
	<b>Total</b>	<b>308</b>	<b>100</b>

*Note: Respondents were permitted for multiple answers*

Table No.8, explains clearly that the majority of the respondents 41 percent gave their first preference to e-books; followed by 18 percent as second preference to e-journals, 15.5 percent respondents preferred Web-pages and Online databases respectively as third option; and the remaining 10 percent for Digital repositories. It is clear that the engineering respondents are giving much preference to electronic information resources.

**9. Purpose of using Electronic Information Resources:** The distribution of respondents according to their purpose of using electronic information resources is shown in Table No.9.

**Table-9: Purpose of using Electronic Information Resources**

Sl. No.	Purpose of using Electronic Information Resources	No. of respondents	Percentage
1	For finding relevant information in the area of specialisation	176	41
2	For writing assignments	78	18
3	For preparing project work	112	26
4	For Seminar/publishing articles	64	15
	<b>Total</b>	<b>432</b>	<b>100</b>

*Note: Respondents were permitted for multiple answers.*

Table No.9 shows that the majority of 41 percent of respondents use electronic information resources for finding relevant information in the area of specialisation; followed by 26 percent for preparing project work; 18 percent use e-resources for writing assignments; and the remaining 15 percent use electronic information resources for Seminar/publishing articles.

**10. Advantages in referring Electronic Information Resources:** The distribution of respondents according to their advantages in referring electronic information resources is shown in Table No.10.

**Table-10: Advantages of Electronic Information Resources**

Sl. No.	Advantages in referring Electronic Information Resources	No. of respondents	Percentage
1.	Easy to Access	146	39
2.	Better Readability	18	5
3.	Effectiveness	42	11
4.	Easy to Search	56	15
5.	Time Saving	86	23
6.	Easy to Download	26	7
	<b>Total</b>	<b>374</b>	<b>100</b>

Table No.10 reveals that the majority of 39 percent of respondents use e-resources to access the information easily, followed by 23 percent use it for time saving, 15 percent use the electronic information resources to search the information easily, 15 percent use it for effectiveness, 7 percent of them to use electronic information resources as it is easy to download, and 5 percent is for better readability.

**11. Facing problems while using Electronic Information Resources:** The distribution of respondents according to their problems facing in referring electronic information resources is shown in Table No.11.

**Table-11: Problems facing while accessing Electronic Information Resources**

Sl. No.	Problems facing in referring electronic information resources	No. of respondents	Percentage
1.	Lack of searching knowledge	62	26
2.	Lack of computer knowledge	36	15
3.	Lack of knowledge in using database	28	12
4.	Internet connectivity related problems	42	18
5.	Lack of Infrastructure	24	10
6.	Inconvenience	30	13
7.	Too much information is retrieved	8	3
8.	Radiation and other Health related problems	8	3
	<b>Total</b>	<b>238</b>	<b>100</b>

Table No.11 reveals that 26 percent of respondents are facing problems due to lack of search knowledge, 18 percent are due to internet connectivity related problems, 15 percent face problems due to lack of computer knowledge, 12 percent due to lack of knowledge in using database, 13 percent face inconvenience, 10 percent of them face problems due to lack of sufficient infrastructure, and only 3 percent of respondents are facing problems due to too much of information retrieval and radiation and other health related problems.

### Suggestions

The administration of the engineering college need to arrange training programmes to increase the usage of electronic information resources for the students. They need to increase the infrastructural facilities and internet speed for effective use of electronic information resources.

## **Conclusion**

The study aims at finding the use of e-resources by the students in the Madanapalle Institute of Technology and Sciences, Madanapalle, Chittoor District. The study reveals that electronic information resources are the most used e-resources among the respondents in engineering colleges. The students used the e-resources for collection of information in their specialisation and for preparation of assignments, research projects and publishing seminar articles.

Now-a-days Internet has emerged as most powerful medium for storage and retrieval of information. In order to retrieve relevant information, users have to make use of different electronic and web resources. The Impact of information and communication technologies has revolutionized every walk of life. To get maximum benefit of these materials one has to pay conscious effort to keep place with the changes taking place in the information communication scenario. The academic institutions and libraries should also facilitate the maximum use of these resources.

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