



## USE PATTERNS OF E-RESOURCES BY THE FACULTY, RESEARCH SCHOLARS AND PROFESSIONAL STUDENTS OF JNTUH COLLEGE OF ENGINEERING, KUKATPALLY, HYDERABAD TELANGANA STATE—A CASE STUDY

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### ABSTRACT :

Information Communication Technology (ICT) has changed the face of library functions in academic libraries in general and engineering colleges in particular. Information Communication Technology helps libraries in creating database of their collections and creation them accessible for easy access to users within and outside the libraries through networks. The study mainly focused on use Pattern of e-resources by the faculty, research scholars and professional students of JNTUH, Hyderabad. Out of 100 questionnaires 82 (82.00%) filled questionnaires were received, in this 19 (76.00%) were faculty members, 22 (88.00%) were research scholars and 41(82.00%) were post-graduates (M.Tech.) students. A large majority 86.58% of users expressed that they are using e-resource and preparing their Research purpose 40.24% users are using e-resources. A Majority of the users 79.26% preferred e-journals.

**KEYWORDS :** E-resources, ICT, E-journals, E-books .

### INTRODUCTION:

Engineering education in India has witnessed a major change over the past few years. Substantial increase in the demand for high-quality education has led to the adoption of Information and Communication Technologies for extending the outreach of education.

Today libraries are functioning continuously changing environment and face a combination of multifaceted challenges like IT revolution, information explosion, network evolution, shrinking library budgets, escalating prices of documents, high level of user expectations, and information resources available in various media and so on. It provides a wide range of opportunities, which could tender solutions to these major challenges. Rapid advances in modern technologies have considerably enhanced the capabilities of storage, processing, communicating, sharing, retrieval, repackaging and managing the volatile growth of information effectively and economically in libraries.



### ENGINEERING EDUCATION IN INDIA

Engineering education in India contributes a major share to the overall education system and plays a vital role in the social and economic development of our nation. In India, technical education is imparted at various levels such as: craftsmanship, diploma, degree, post-graduate and research in specialized fields, catering to various aspects of

technological development and economic progress.

Engineering education contributes to the national economy and paces way for the improvement of the life of people, thus leading to self reliance. The policy of state lays stress on securing for the people, the benefits from acquisition of scientific knowledge and practical application of research. The policy is aimed at encouraging individual initiative for dissemination of knowledge and foster programme for scientific training and personnel.

**JNTU College of Engineering, Kukatpally-A Profile:** The College was established as Nagarjuna Sagar Engineering College in 1965 by the Government of Andhra Pradesh. When the college was under the administrative control of the Department of Technical Education, with the formation of Jawaharlal Nehru Technological University on 2<sup>nd</sup> October 1972, it became a constituent college of the University and was later renamed as JNTU College of Engineering.

**JNTU College of Engineering Library-A Profile:** The Library caters to the needs of about 5000 users comprising Under-Graduate, Post-Graduate students (Regular and Part-time) Doctoral students, teaching and non-teaching staff. The library has a rich collection of 31,500 books with 7,140 Titles, back volumes, pamphlets, standards, CD-ROM. The library subscribed to around 58 National & International Print Journals. The Digital Library has campus LAN connectivity through Computer Center. The library subscribed the data base such as AICTE-INDEST IEEE, ACM, ASCE, ASME & EBSCO.

#### REVIEW OF LITERATURE:

1. Anjaiah, M and Nageshwara Rao, P (2015) found in their study that there is urgent need to provide e-resources to faculty to enrich knowledge which is need to development. The INDEST-AICTE consortium e-resources such as e-books, e-journals, e-articles, and e-technical reports should be procured by the library which are most useful to the all the users.
2. Asifa Jan (2017) in his article revealed that the most of the users are aware of e-journals and they are not only using them for building and updating their knowledge but also for collecting relevant material for their study and research purpose it is a good sign.
3. Puttaswamy, R.M. and Krishnamurthy, M. (2014) emphasized that e-resources are useful for engineering college teachers and scholars for their academic and research activities.
4. Dhanavandan S. and Tamizhchelvan M. (2015) identified that in Engineering colleges most number of libraries subscribes to e-journals and e-books and few libraries have online database and CD ROM database collection. Most of the libraries have internet facility in their premises. Majority of the institution libraries have OPAC. Contrastingly they are in the process of developing WEBOPAC, subject gateways and websites.
5. Aravind S. (2017) the findings showed that majority of respondents use the libraries for study propose and majority of respondents access the electronic resources regularly and once in a day
6. Rosy Malarvizhi S. and Sarangapani R. (2016) evaluated the usage of electronic information resources by the faculty members of Karunya University, Coimbatore. It described the problems faced by faculty while using the electronic resources and find out the level of satisfaction about the electronic information sources and services.

**Objectives:** For the present study, the following objectives are made:

1. To know the awareness electronic resources by Faculty members, Research Scholars and Students of JNTUH College of Engineering.
2. To know the use pattern of e-resources by Faculty members, Research Scholars and Students of JNTUH College of Engineering.
3. To find out effective usage of e-resources in JNTUH College of Engineering.
4. To find out the problems faced by the users while accessing and using E-resources.
5. To know the satisfaction level of the users.

**Methodology:** For the present study, the survey method is adopted. A total of 100 Questionnaire were distributed to Faculty members, Research scholars and Post-Graduate(M.Tech.) students of the in JNTUH College of Engineering, Hyderabad and 82 filled in questionnaires were received. The response rate is 82.00%.

**Statistical Tools Used For:** The collected data were analyzed in the form of tables.

**Table 1: The Distribution of Questionnaires**

Sl. No	Category-Wise	Questionnaires Distributed	Questionnaires Received	Percentage
1.	Faculty Members	25	19	76.00%
2.	Research Scholars	25	22	88.00%
3.	Students	50	41	82.00%
3.	Total	100	82	82.00%

The above Table-1 shows the distribution of questionnaires and response rate. A total number of 100 questionnaires were distributed among to the 25 faculty members, 25 research scholars and 50 post-graduates (M.Tech.). Out of 100, 82 (82.00%) questionnaires were received. Among them, 19 (76.00%) were faculty members, 22 (88.00%) were research scholars and 41 (82.00%) were post-graduates (M.Tech.) students. It shows that the Research Scholars were high.

**Table 2: Awareness about E-Resources**

Sl. No	Awareness	Faculty Members	Research Scholars	Students	Total
1.	Yes	19(100.00%)	20(90.90%)	32(78.04%)	71(86.58%)
2.	No	0(00.00%)	02(9.10%)	09(21.96%)	11(13.41%)
3.	Total	19(100.00%)	22(100.00%)	41(100.00%)	82(100.00%)

Table 2 shows that the majority of respondents 71 (86.58%) are using electronic resources and only 11 (13.41%) are not using them. The above analysis indicates that the users who are not using the e-resources either may not be aware of them or not interested in using them.

**Table 3: Frequency of visiting the library.**

Sl. No	Frequency	Faculty Members	Research Scholars	Students	Total
1.	Daily	1(5.26%)	18(81.81%)	12(29.26%)	31(37.80%)
2.	Weekly	13(68.42%)	3(13.63%)	20(48.78%)	36(43.90%)
3.	Monthly	5(26.31%)	1(4.54%)	5(12.19%)	11(13.41%)
4.	Rarely	0(0.00%)	0(0.00%)	4(9.75%)	4(4.87%)
5.	Total	19(100.00%)	22(100.00%)	41(100.00%)	82(100.00%)

Data in table 3 reveals that 36 respondents (43.90%) using of e-resources by weekly, followed by 31(37.80%) respondents using daily, 11(13.41%) respondents using monthly and 4(4.87%) respondents using of e-resources rarely. It is a good sign. It shows that the e-resources very essential in academic field.

**Table 4: Purposes of using e-resources.**

Sl. No	Purpose	Faculty Members	Research Scholars	Students	Total
1.	For Subject Knowledge	3(15.78%)	3(13.63%)	4(9.75%)	10(12.19%)
2.	For Examination	0(00.00%)	2(9.09%)	9(21.95%)	11(13.41%)
3.	For Project-work	1(05.26%)	4(18.18%)	23(56.09%)	28(34.14%)
4.	Research purpose	15(78.94%)	13(59.09%)	5(12.19%)	33(40.24%)
5.	Total	19(100.00%)	22(100.00%)	41(100.00%)	82(100.00%)

Data in table-4 shows that a majority of the respondents 33(40.24%) opinions that they are using e-resources for Research purpose, followed by 28(34.14%) respondents Said that they are using e-resources for Project-work, 11(13.41%) respondents said that they are using for examination, 10(12.19%) respondents said they are using e-resources for subject knowledge.

**Table 5: Access and use pattern of E-resources.**

Sl. No	E-Resources	Faculty Members	Research Scholars	Students	Total
1.	E-Books	9(47.36%)	11(50.00%)	14(34.14%)	34(41.46%)
2.	E-Journals	15(78.94%)	20(90.90%)	30(73.17%)	65(79.26%)
3.	E-theses	7(36.84%)	14(63.63%)	10(24.39%)	31(37.80%)
4.	E-magazines	2(10.52%)	7(31.81%)	10(24.39%)	20(24.39%)
5.	E-news papers	3(15.78%)	10(45.45%)	8(19.51%)	21(25.60%)

The above table-5 shows that a majority of the respondents 65(79.26%) preferred e-journals as their primary e-resources, followed by 34(41.46%) respondents preferred e-books, 31(37.80%) respondents preferred e-theses, 21(25.60%) respondents preferred e-news papers, 20(24.39%) respondents preferred e-magazines.

**Table 6: Criteria of using e-resources.**

Sl. No	Criteria	Faculty Members	Research Scholars	Students	Total
1.	Speed of Access	6(31.57%)	7(31.81%)	15(36.58%)	28(34.14%)
2.	More Information	3(15.78%)	4(18.18%)	10(24.39%)	17(20.73%)
3.	Easy Access	4(21.05%)	3(13.63%)	5(12.19%)	12(14.63%)
4.	Reliability	1(5.26%)	2(9.09%)	3(7.31%)	6(7.31%)
5.	Time Saving	5(26.31%)	6(27.27%)	8(19.51%)	19(23.17%)
6.	Total	19(100.00%)	22(100.00%)	41(100.00%)	82(100.00%)

The above table-6 shows that a majority of the respondents 28(34.14%) opinioned that the speed of access is the primary criteria to access the e-resources, followed 19(23.17%) respondents opined that time saving is the criteria to prefer e-resources, 17(20.73%) respondents feels that more information is the cause to access e-resources, 12(14.63%) respondents said that easy access is the criteria and 6(7.31%) respondents said reliability is the criteria of using e-resources.

**Table 7: Problems encountered while accessing the E-Resources.**

Sl. No	Problems	Faculty Members	Research Scholars	Students	Total
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1.	Lack of Infrastructure Facilities	6(31.57%)	8(36.36%)	10(24.39%)	24(29.26%)
2.	Limited time to access	3(15.78%)	5(22.72%)	20(48.78%)	28(34.14%)
3.	Frequently Power off	2(10.52%)	5(22.72%)	15(36.58%)	22(26.82%)
4.	Low bandwidth Internet	4(21.05%)	8(36.36%)	24(58.53%)	36(43.90%)
5.	Downloading Problems	11(57.89%)	12(54.54%)	25(60.97%)	48(58.53%)

The above table-7 shows that majority of the respondents 48(58.53%) feels that download problem is major issue in accessing e-resources, followed by 36(43.90%) of respondents said that low bandwidth Internet is the issue in the using the e-resources, 28(34.14%) feel limited time to access, 22(26.82%) Frequently Power off is the barrier to access the resources respectively.

**Table 8: Level of Satisfaction on E-Resources.**

Sl. No	Satisfaction	Faculty Members	Research Scholars	Students	Total
1.	Highly Satisfied	4(21.05%)	4(18.18%)	5(12.19%)	13(15.85%)
2.	Satisfied	12(63.15%)	11(50.00%)	25(60.97%)	48(58.53%)
3.	Not satisfied	3(15.78%)	7(31.81%)	11(26.82%)	21(25.60%)
4.	Total	19(100.00%)	22(100.00%)	41(100.00%)	82(100.00%)

The above table-8 shows that a large majority of the respondents 48(58.53%) were satisfied with the availability of e-resources in library, followed by 21(25.60%) respondents were not satisfied and 13(15.85%) respondents were highly satisfied. This table shows that the importance of e-resources and its need of users for their academic purpose.

#### **FINDINGS:**

From the above analysis, the following findings were found:

1. It is observed from the study a majority of respondents 71 (86.58%) are using electronic resources and only 11 (13.41%) are not using them. The above analysis indicates that the users who are not using the e-resources either may not be aware of them or not interested in using them.
2. This study shows that 36 respondents (43.90%) using of e-resources by weekly, followed by 31(37.80%) respondents using daily, 11(13.41%) respondents using monthly and 4(4.87%) respondents using of e-resources rarely. It is a good sign. It shows that the e-resources very essential in academic field.
3. A majority of the respondents 33(40.24%) opinions that they are using e-resources for Research purpose, followed by 28(34.14%) respondents Said that they are using e-resources for Project-work, 11(13.41%) respondents said that they are using for examination, 10(12.19%) respondents said they are using e-resources for subject knowledge.
4. A majority of the respondents 65(79.26%) preferred e-journals as their primary e-resources, followed by 34(41.46%) respondents preferred e-books, 31(37.80%) respondents preferred e-theses, 21(25.60%) respondents preferred e-news papers, 20(24.39%) respondents preferred e-magazines.
5. A majority of the respondents 28(34.14%) opinioned that the speed of access is the primary criteria to access the e-resources, followed 19(23.17%) respondents opined that time saving is the criteria to prefer e-resources, 17(20.73%) respondents feels that more information is the cause to access e-resources, 12(14.63%) respondents said that easy access is the criteria and 6(7.31%) respondents said reliability is the criteria of using e-resources.
6. It is observed from the study that a majority of the respondents 48(58.53%) feels that download problem is major issue in accessing e-resources, followed by 36(43.90%) of respondents said that low bandwidth Internet is the issue in the using the e-resources, 28(34.14%) feel limited time to access, 22(26.82%) Frequently Power off is the barrier to access the resources respectively.

7. This study shows that a large majority of the respondents 48(58.53%) were satisfied with the availability of e-resources in library, followed by 21(25.60%) respondents were not satisfied and 13(15.85%) respondents were highly satisfied. This table shows that the importance of e-resources and its need of users for their academic purpose.

### CONCLUSION:

From the study EIR such as e-journals, e-books are playing a very important role in disseminating information to remote users scattered across the world. The usage of e-resources in engineering college libraries is very usual and it's so essential to know latest developments and innovations in the field of engineering and technology. It also found that majority of respondents are needy on e-journals to get needed and relevant information for their course work. The e-journals are helping them very much in their working environment. The engineering college libraries need to be provide with proper infrastructural facilities and also providing training workshops for effective use of e-resources by library users of engineering colleges.

### SUGGESTIONS:

Based on the present study, the following suggestions were made to improve the e-resources in the engineering college libraries.

1. There is top-priority to conduct the orientation programmes for the user community to create awareness about e-resources.
2. There is also urgent need to improve Information Communication Technology Infrastructure in the library to provide better library services to students.
3. To avoid downloading problems, the needed mechanism should be arranged.
4. All the problems raised by the users should be solved as early as possible.

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