Impact of ICT Utilization in selected Engineering College Libraries among the faculty members in Chengalpattu : A Study

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Abstract

The objective of the study is find out the Impact of ICT utilization in selected engineering college libraries among the faculty members in chengalpattu. The study is conducted to analyze the various types of ICT resources, barriers, frequency and advantages in accessing resources. The data for the study is obtained by distributing well structured questionnaires with the aid of survey method. There are 320 questionnaires were distributed out of which 256 were received back. Followed by 135(42.19) were Assistant Professor and 185 (57.81) were Associate Professor and Professor.

Keywords : ICT (Information and Communication Technology), Faculty Members, Internet of Thinking (IoT)

Introduction

In the present scenario, the Internet of Thinking (IoT) covers all subjects. It predominately occupies (IT) information technology to transforming ICT (information communication technology), especially, in education the transformation of book in to digital in various digital formats, anytime, anywhere, any place to access the information. The ICT is more helpful in research and development activities and also in the development of a country, business, agriculture, industry development, and bank sector, including social and cultural development. According to **Bhatt (2010)**[1]"The university's library serves as the central hub for the learning community", providing a platform for students, researchers, and faculty to conduct research and enhance their understanding. This study surveys selected engineering college libraries in Chengalpattu district to explore ICT applications, tools, utilization, and services offered. It examines the impact of ICT services on libraries, the significance of ICT, implementation complexity, and the user satisfaction.

Review of Literature

Shyni et al., (2019) did a study on Accessing Electronic Resources by the Faculty Members of Colleges Affiliated to Mahatma Gandhi University in Kerala. Although certain discontent with access was noted, users were found to be extremely satisfied when using electronic resources connected to education. The study made clear that while using electronic resources, library hours and infrastructure should be consistent with the necessary requirements.

Saleem et.al., (2012) Information and communication technologies (ICTs) are becoming more widely known and used by individuals with disabilities worldwide, including those who are visually impaired. The uptake or acceptance of a wide range of technological instruments for communication and information sharing is included in the study's definition of "use of ICT." They propose five ICT applications for academic libraries: Library Automation, Library Networking, Library Management, Digital Library, and Technical Communication. These applications are becoming more common in academic libraries and have a significant impact on ICT adoption. To encourage users to use ICT more frequently, academic libraries should raise user awareness of video conferencing. A study found that few libraries offer video conferences due to a lack of consortiums; if other libraries are involved, more users will use video conferencing.

Burhansabet.al., (2020) investigated “Researchers found that awareness and use of electronic resources in a few colleges at Sholapur University were widespread among library users due to the resources' ease of use, retrieval, and storage. They also recommended that advanced search strategies, controlled vocabulary, and general Internet use for scholarly and academic purposes be organized as training programs to facilitate electronic search processes.”.

Sivasubramaniyan et.al., (2012) exploredthe availability of computers, network systems, tool use, and a network infrastructure that facilitates rapid and easy connections all contribute to access to e-resources. It is disheartening to observe that academic libraries do not have the necessary infrastructure in place to satisfy the demands of users who largely depend on electronic resources for their academic work. It's critical to realize that effective utilization of electronic resources requires training on how to obtain and use the provided product. Postgraduate students, however, lack sufficient room for librarians to instruct them in the fundamental computer skills needed to access e-resources.

According to**Natarajan et. al. (2020)** the research was conducted at Annamalai University in India as a case study. The study finds that poor usage rates of electronic resources, despite their abundance, can be attributed to a number of factors, including inadequate knowledge, incomplete coverage of the subject, sluggish download speeds, and insufficient time. Out of all the e-resources, users were only aware of e-journals, and only 50% of usersexpressed satisfaction with them. Additionally, e-journals were the only resource that users frequently used; e-dictionaries and e-encyclopedias, on the other hand, were the least used e-resources.

Dhanavandan et.al., (2020) used a questionnaire tool to perform a survey to find out how satisfied faculty and students at the Krishnasamy College of Engineering & Technology Library in India were with the available e-resources. A total of 118 (78.7%) of the nearly 150 surveys that were given to the professors and students were answered. The survey discovered that the general evaluation of consumer happiness and service quality was given a moderate rating.

Vijayakumar (2020) investigated in the Government Siddha Medical College Library in Thirunelveli, the study revealed that document delivery services, abstracting and indexing services, CAS & SDI services, interlibrary loan, orientation program, and online services are available in the library. This is in addition to the Yoga-Science libraries' offerings of lending and paper clipping services, which are followed by libraries' cataloguing, reference, information, and computerized services, OPAC, and reservation of books, indexing and abstracting service, and translation.

Om Ananthi et.al., (2021) examined how women faculty members in a few higher education institutions in the Thanjavur District use e-resources differently depending on their age. According to the level of awareness, 65.17% of respondents said they received "good support," while 23.6% said they received "very good support." The majority of female faculty members also thought that e-resources were "extremely useful."

Thanuskodi (2011) revealed that PhD scholars and postgraduate students explore online resources the least, while M.Phil. students search most frequently. Additionally, it shows that users are aware of the many kinds of e-resources and are aware of them, but they still think that the access facilities should be improved.

Burhansab et.al., (2020) investigated an understanding of and degree of usage of electronic resources by library patrons in particular Solapur University institutions. According to

the study, the majority of users is aware of electronic resources and has used them for educational purposes.

Methodology

The study focuses on the extent to which ICT facilitates access to information and supports engineering faculties in maximizing resource use. Therefore, the chosen topic for investigation is "Impact of ICT Utilization in selected Engineering College Libraries in Chengalpattu: A Study". In this study 320 Questionnaires were distributed to the respondents among the faculty members in the selected engineering college libraries in chegalpattu . Out of 320, 256 questionnaires were returned by the respondents. The response rate was 80%.

Objective of the Study

- To measure the frequent visit in the library by the faculty members.
- To investigate the information needs and demands of faculty members.
- To evaluate the adequacy of library sources utilized by the engineering faculty members.
- To validate the insights of faculty members on the quality of information availability in libraries.
- To find out the awareness of e-resources by the engineering college faculty members.

Data Analysis and Interpretation

Table 1 Distribution of the sample based on engineering college survey conducted

S.No	Engineering College	Questionnaire distributed		
		Assistant Professor	Associate Professor And Professor	Total
1.	Adhiparasakthi college of engineering	50(15.63)	40(12.50)	90(28.13)
2.	Annai Veilankanni's college of Engineering	20(6.25)	50 (15.63)	70(21.87)
3.	Asan Memorial College of Engineering and Technology	25(7.81)	60 (18.75)	85(26.56)
4.	Anand institute of higher technology	40 (12.50)	35(10.94)	75(23.44)

		135(42.19)	185 (57.81)	320(100%)

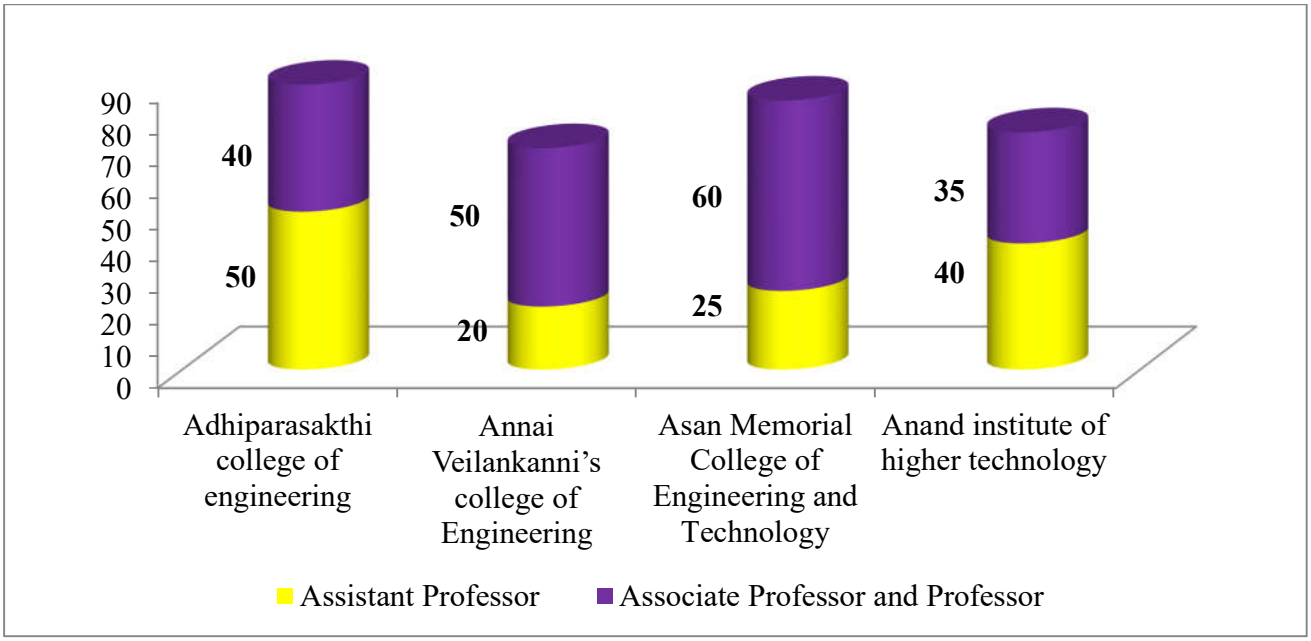

Fig. 1 Questionnaire distributed to Engineering College

Table 1 and Fig.1 depict that among the engineering college faculty members. 320 questionnaires were distributed. Followed by 90(28.13%) were distributed Adhiparasakthi college of engineering, 70(21.87%) were distributed Annai Veilankanni's college of Engineering, 85(26.56%) were distributed Asan Memorial College of Engineering and Technology and 75(23.44%) were distributed Anand institute of higher technology.

Table 2 Distribution of the sample based on engineering college survey responses received

S.No	Engineering College	Questionnaire received		
		Assistant Professor	Associate Professor and Professor	Total
1.	Adhiparasakthi college of engineering	42 (16.41)	32 (12.50)	74 (28.91)
2.	Annai Veilankanni's college of Engineering	14 (5.47)	34 (13.28)	48 (18.75)
3.	Asan Memorial College of Engineering and Technology	21(8.20)	48 (18.75)	69 (26.95)

4.	Anand institute of higher technology	37(14.45)	28 (10.94)	65 (25.39)
	Total	114 (44.53)	142 (55.47)	256 (100%)

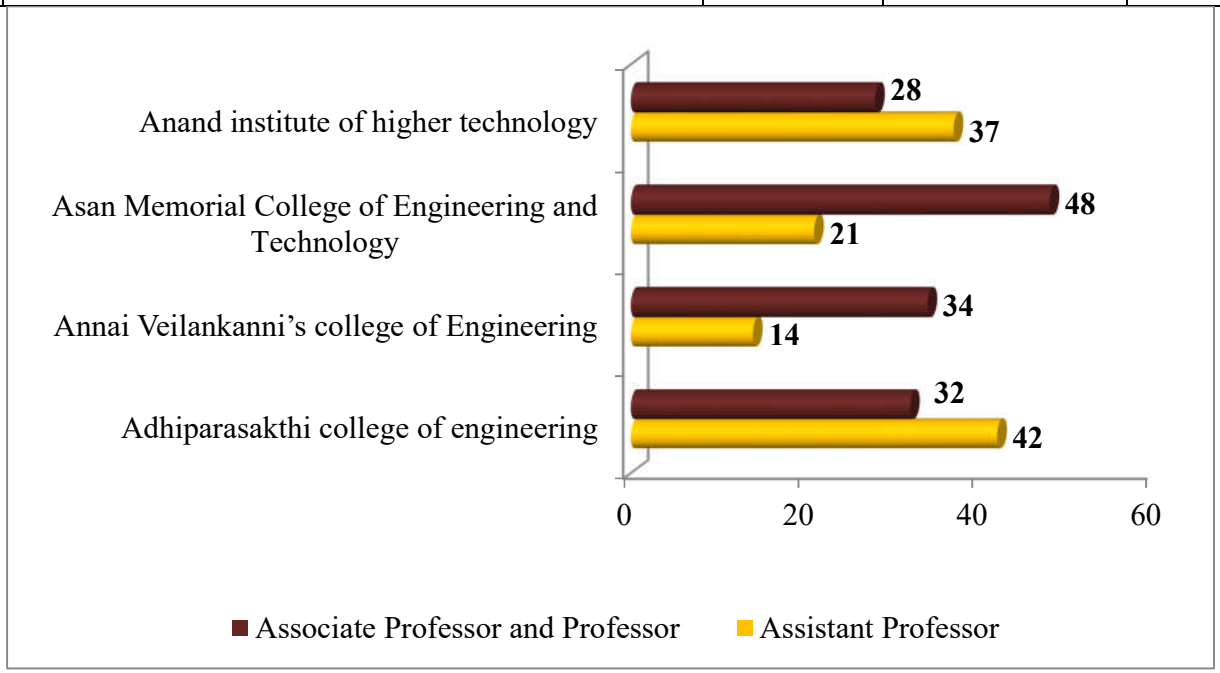

Fig. 2 Questionnaire received from Engineering College

Table 2 and Fig.2 depict that among the engineering college faculty members. 256 questionnaires were received. Followed by 74 (28.91%) were received Adhiparasakthi college of engineering, 48 (18.75%) were received Annai Veilankanni's college of Engineering, 69 (26.95%) were received Asan Memorial College of Engineering and Technology and 65 (25.39%) were received Anand institute of higher technology.

Table 3 Frequency of visits in the library based on designation

S.No	Visit to the Library	Assistant Professor	Associate Professor and Professor	Total
1.	Every day	27 (10.54)	35 (13.67)	62 (24.21)
2.	Twice in a week	19 (7.42)	25 (9.77)	44 (17.16)
3.	Thrice a week	14 (5.47)	21 (8.20)	35 (13.65)
4.	Once in a week	16 (6.25)	22 (8.59)	38 (14.82)
5.	Occasionally	14 (5.47)	16 (6.25)	30 (11.72)
6.	Rarely	17 (6.64)	19(7.42)	36 (14.04)

7.	Never	2 (0.78)	9 (3.52)	11(4.40)
Total		109 (42.58)	147 (57.42)	256(100%)

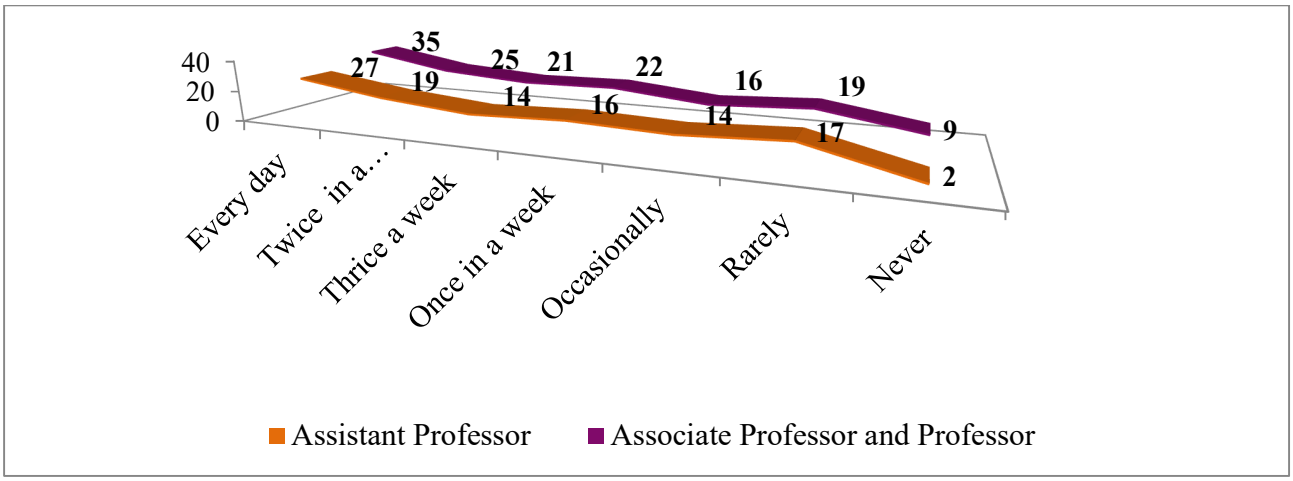

Fig. 3 Frequency of visits in the Engineering College library

Table 3 (Fig.3) indicates the faculties infers that the three categories of respondents frequently visit the library. Out of 256 respondents, 62 (24.21%) of respondents visit every day, 44 (17.16%) of respondents visit the library twice a week, 35 (13.65%) of respondents who visit the library thrice a week. 38 (14.82%) of respondents visit the library once in a week, 30 (11.72%) of respondents visit the library once in a week, 30 (11.72%) of respondents visit occasionally, 36 (14.04%) of respondents visit the library rarely and while the remaining 11 (4.40%) of respondents never visit the library.

Table 4 Adequacy of library resources used by the respondents

S. No	Library Resources	Not Respondents	Inadequate	Partially adequate	Adequate	Total
1	Textbooks	32 (12.70)	47 (18.20)	68 (26.80)	109 (42.30)	256 (100%)
2	Periodicals (Journals/Magazines)	28 (11.00)	25 (9.90)	103 (40.40)	100 (39.06)	256 (100%)
3	Internet connections	52 (20.30)	16 (6.20)	93 (36.70)	94 (36.8)	256 (100%)
4	Study Materials	49 (19.00)	10 (4.10)	149 (58.30)	48 (18.50)	256 (100%)
5	Online database	53 (20.60)	23 (8.80)	95 (37.20)	85 (33.40)	256 (100%)

6	Newspapers	51 (19.90)	27 (10.50)	82 (32.10)	96 (37.50)	256 (100%)
7	Computer Facilities	28 (11.30)	49 (19.0)	82 (31.9)	97 (37.8)	256 (100%)

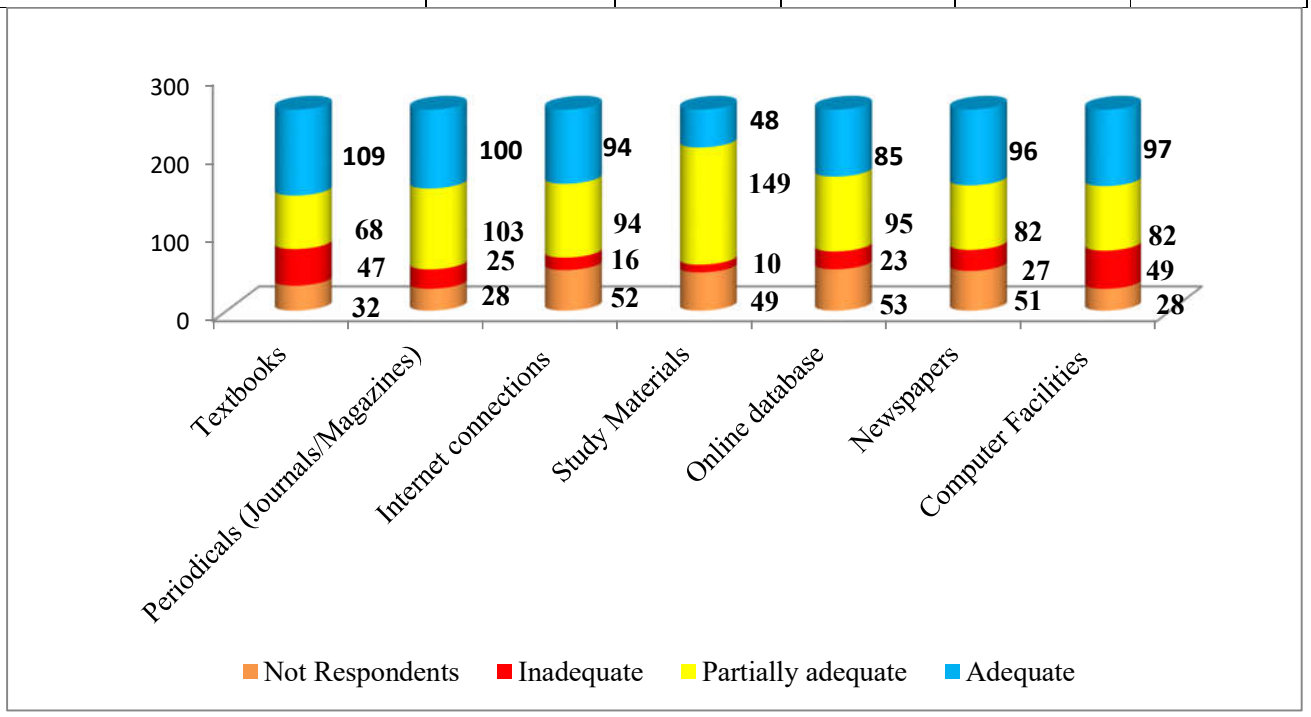

Fig. 4 Adequacy of library resources used

Table 4 (Fig.4) show the analysis of the specific adequacy of library resources used by the respondents. Adequate used top level of resources were Textbooks, Internet connections, Newspapers and Computer Facilities. Partially adequate used top levels of resources were Periodicals (Journals/Magazines), Study Materials and Online database.

Table 5 Use of library E-resources by the respondents

S. No	Resources	Regularly	Frequently	Occasionally	Rarely	Never	Total
1	Journals	85 (33.10)	58 (22.50)	67 (26.10)	26 (10.20)	20 (8.10)	256 (100%)
2	Manuscript	90 (35.30)	51 (20.00)	39 (15.40)	38 (14.30)	38 (14.90)	256 (100%)
3	Maps	66 (25.90)	58 (22.50)	56 (21.90)	30 (11.70)	46 (17.90)	256 (100%)
4	Books	83 (32.40)	55 (21.50)	33 (13.00)	46 (17.9)	39 (15.2)	256 (100%)
5	Magazines	83 (32.30)	76 (29.90)	34 (13.10)	33 (12.70)	30(12.00)	256 (100%)
6	Thesis	83 (32.30)	62 (24.30)	46 (18.10)	30 (11.90)	35 (13.50)	256 (100%)
7	Newspapers	75 (29.20)	64 (25.20)	53 (20.30)	26 (10.30)	38 (14.90)	256 (100%)

8	Research report	84 (32.80)	58 (22.5)	34 (13.4)	44 (17.0)	36 (14.3)	256 (100%)

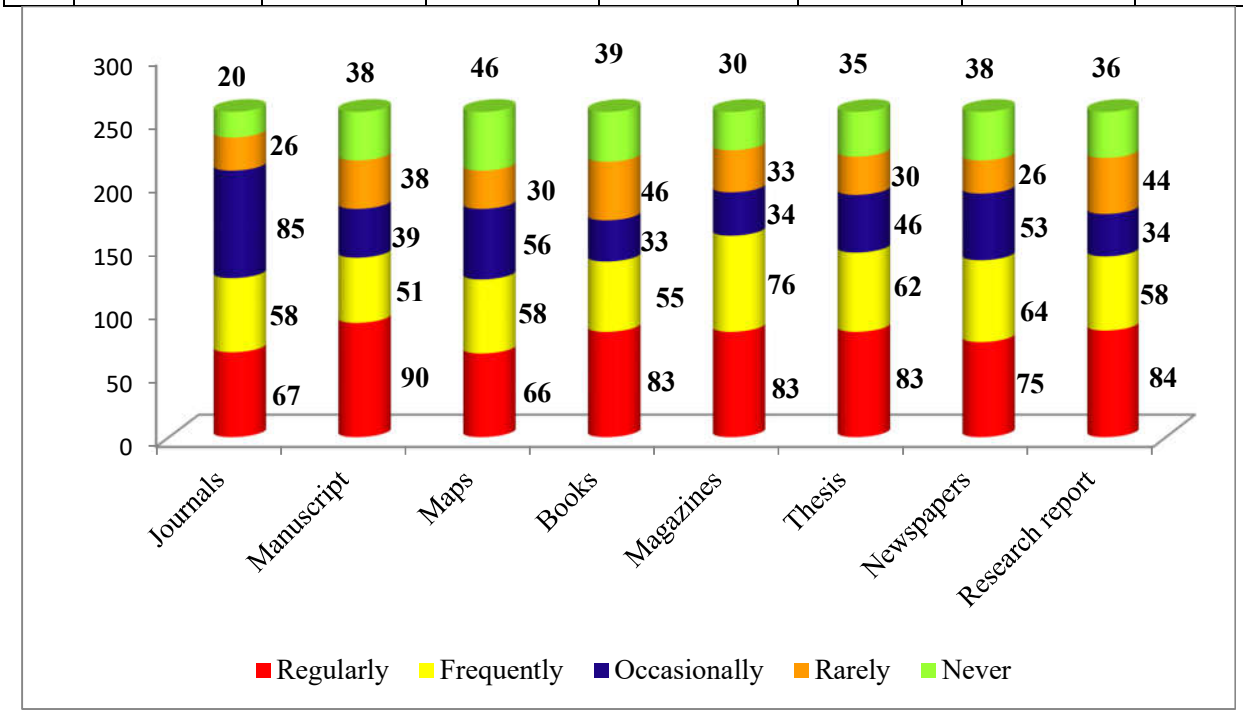

Fig. 5 Use of library E-resources

Table 5 (Fig.5) identify the use of library e-resources by the respondents. Top level regularly resources use were Journals, Manuscript, Maps, Books, Magazines, Thesis, Newspapers and Research report.

Table 6 Sources of getting awareness by the respondents

S. No	Sources	Assistant Professor	Associate Professor and Professor	Total
1	Self-Exploration	12 (4.80)	16 (5.90)	28 (10.80)
2	College website	16 (6.20)	10 (3.90)	26 (10.10)
3	Notice Board	19 (7.60)	14 (5.40)	33 (13.00)
4	Workshop	13 (4.90)	23 (9.20)	36 (14.10)
5	Friends colleagues	6 (2.30)	18 (7.20)	24 (9.40)
6	Teaching Professors	16 (6.20)	9 (3.60)	25 (9.80)
7	Internet	12 (4.70)	8 (3.00)	20 (7.90)
8	Library OPAC	21 (8.20)	15 (5.80)	36 (13.90)
9	Library Professionals	21 (8.10)	7 (3.10)	28 (11.00)

Total	136 (52.80)	120 (47.20)	256 (100%)

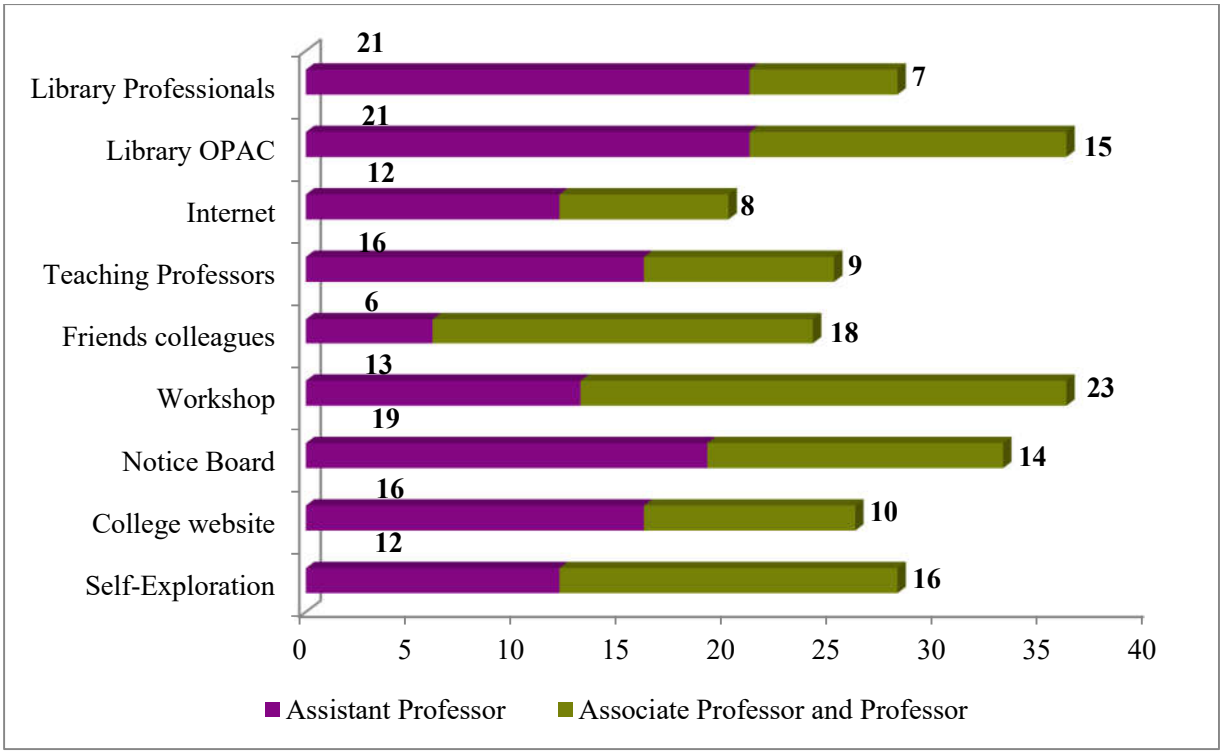

Fig. 6 Sources of getting awareness

The sources of awareness of the respondents are discussed in the above Table 6 (Fig.6). Out of 256 respondents, 28 (10.80%) learned about self-exploration followed by 26 (10.10%) of respondents aware of through of the through college website, 33 (13.00%) of respondents are aware of through notice board, 36 (14.10%) of respondents learned through workshop, 24 (9.40%) of respondents awareness is gained through friends, 25 (9.80%) of respondents awareness is gained through teaching professors, 20 (7.90%) of respondents they know through internet, 36 (13.90%) of respondents aware through library OPAC, as a final point 28 (11.00%) of respondents to learned awareness is gained through the library professionals.

Findings

- Faculty members at four selected engineering colleges distributed 320 questionnaires, of which 256 were received. The response rate was 80 percent.
- Overall results indicate Adhiparasakthi college of engineering as having 74 (28.91%)number of respondents, Annai Veilankanni's college of Engineering had 48

(18.75%), Asan Memorial College of Engineering and Technology had 69 (26.95%) and Anand institute of higher technology had 65 (25.39%).

- Frequently visit the library topper 62 (24.21%) of respondents visit the library every day.
- Adequate used top level of resources were Textbooks, Internet connections, Newspapers and Computer Facilities.
- Top level regularly resources use were Journals, Manuscript, Maps, Books, Magazines, Thesis, Newspapers and Research report.
- Out of 256 respondents, 36 (14.10%) equal number of respondents learned through workshop and library OPAC.

Conclusion

Library Information and Communication Technology (ICT) has significantly enhanced the processes of information storage, retrieval, acquisition, cataloguing, classification, material circulation, management statistics and administrative tasks. The ICT tools like CD-ROM, E-mail, Internet and electronic devices are employed for information dissemination. Digitalization of resources, converting print to electronic form, enhances access to information resources and databases regardless of geographical barriers. The study in the engineering college libraries examined the ICT usage patterns among faculty members being most frequently used library resources.

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