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## USE OF ICT RESOURCES AND SERVICES BY THE FACULTY MEMBERS OF SELF FINANCE ENGINEERING COLLEGE LIBRARY

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### **Abstract**

The present study made an attempt to know the use of ICT resources and services by the faculty members of self finance engineering college library. ICT helps in performing various library operations such as collecting, processing, storing, retrieving and disseminating information using computer peripherals and internet facilities. The academic library users are able to be self reliant in fulfilling their information need provided they are familiar with the required computer knowledge and skills and be oriented for library user education programme. The researcher selected 982 samples randomly in various colleges. Standard questionnaires are used to collect the primary data. The main objectives of this study is to know their attitude about use of ICT, the type of search engines used, purpose of visiting library and frequency usage of internet. Result found that male respondent have high level of attitude related to ICT and most of them are used Google and yahoo.

Key words : Information, Search engines , Technology.

## INTRODUCTION

Information and communication technology usually called ICT is often used as an extended synonym for information technology (IT). But it is usually a more general term that stresses the role of unified communications and the integration of telecommunications intelligent building management systems and audio-visual systems in modern information technology. ICT consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middleware as well as necessary software. In other words, ICT consists of IT as well as telephony, broadcast media, all types of audio and video processing and transmission, and network based control and monitoring functions.

Today we are living in an age of digital world. Computer and other electronic resources has become an indispensable tool in our society. ICT play a significant role in the modern libraries. Educational institutions play a role to inputting knowledge to all age group. The main function of a library is to provide information to the users. With the help of electronic resources the faculties, students and the researchers can access to the huge volume of information with speed and accuracy using ICT.

The ICT provides a cheap and efficient means of communication. It is a boon to all where they can access to information available throughout the universe with the help of online search with the advent of digital revolution, communication became easier and faster and decisions are made instantaneously. The present study is to highlight the use of ICT and its resources available in the engineering college libraries and usage of electronic resources by the clients of various professions has been undertaken. Analyze the data with that of available materials in electronic form in selected engineering colleges in Chittoor District, Andhra Pradesh.

The new information technology has created a new infrastructure for engineering college libraries and change the way they function and provide services. Most of the engineering college libraries in India fully equipped with modern facilities collections related to ICT.

## Definition of ICT

UNESCO Asia and Pacific Regional Bureau for Education and Commonwealth of Learning (2004), defines, “Information and Communications Technologies (ICTs) are technologies used to communicate and to create, manage and distribute information. A broad definition of ICTs includes computers, the Internet, telephones, television, radio and audiovisual equipment”. ICT is the term which applies to any device and application used to access, manage, integrate, evaluate, create and communicate information and knowledge, including but not limited to radio, television, cellular phones, computer hardware and software, network hardware and software, satellite systems, peripherals, connections to the Internet.

## USES OF ICT IN EDUCATION

ICT is being utilized in every part of life. Due to the increasing importance of the computer, students-the future citizens cannot afford to keep themselves aloof from this potential medium. In education, use of ICT has become imperative to improve the efficiency and effectiveness at all levels and in both formal and non-formal settings. Education even at school stage has to provide computer instruction. Profound technical knowledge and positive attitude towards this technology are the essential prerequisites for the successful citizens of the coming decades.

## Review of literature

**Seena and Sudhier (2014)** investigated the awareness, skill and attitude towards Information and Communication Technologies (ICT) among library professionals in Kerala University Library, Thiruvananthapuram. The study is based on a questionnaire survey of library professionals employed in the central and departmental libraries of the University of Kerala. The analyses revealed that the library professionals in the Kerala University library system have relatively average level skills in various ICT related tasks in libraries. Libsys software was more used in libraries and a good number of professionals indicated that the main constraint in the application of ICT in libraries is inadequate training in ICT applications. All the professionals expressed a positive attitude towards the application of ICT in libraries.

**Sandhyakumari and Manpreet (2015)** conducted a study on the faculty members and research scholars of department of zoology and department of botany, University of Delhi as to their use of electronic journals, purpose of using e-journals, methods of

learning e-journal accessing skills, search techniques employed by users, their preference for reading online or taking printout on paper, advantages associated with e-journals, problems faced by users while accessing e-journals etc. It was found that electronic journals are highly appreciated by faculty members and research scholars and they are satisfied with e-journals service. The study revealed that slow speed of internet as the major problem while accessing e-journals. It was concluded that for the optimum utilization of e-journals, there is need to improve internet connectivity, remote access to e-journals should be provided and information literacy programmes should be organized on regular intervals by library. The findings of the study will help in improving usability of e-journals subscribed by central science library in the field of zoology and botany.

**Umar Lawal Bello (2017)** conducted a study on utilization of information and communication technology among undergraduate nursing students. The use of ICT to enhance learning and teaching has become increasingly important. Information and communication technology in education is a modern, efficient and cost effective process which has created a need to transform how students and teachers from higher institutions learn and teach respectively. A descriptive cross sectional design was used for the study where 504 fourth year students are selected. A validated structured questionnaire was used for data collection. The data collected were analyzed using Statistical Package for Social Science (SPSS) version 20. The results shows that 80 percent of the surveyed students utilized ICT in performing their study assignments and research. Majority of the female students (79.0%) self reported themselves as good in computer skills while only one fifth (21.0%) of the male students rated themselves as good in computer skills. Therefore it is concluded that majority of the students had good ICT utilization with variation to residence and family income. Further it is recommended the university should ensure strict compliance with the rules of e-learning courses for the students and ensure proper application by each student.

## **Methodology**

Usually the survey method in all social science and behavioral science rely on both questionnaire and interview methods. J.B. Wills, ensures the statement in his survey of user needs as the most reliable way to obtain information about user needs is to conduct a survey by distributing a questionnaire.

## Objectives

**The following objectives are formulated based on the above problem.**

- ❖ To examine the attitude on using ICT teaching among the faculty members.
- ❖ To know the purpose of gathering information from the search engines.
- ❖ To identify the purpose of visiting college library.
- ❖ To examine the motivating factors to use ICT.

## Hypotheses

**The following hypotheses are formulated based on the above objectives.**

**They are:**

- ✓ Respondents do not differ in their level of attitude using the ICT for teaching on the basis of gender.
- ✓ There is no significant difference between the faculty members in using search engines for teaching /research.
- ✓ There is no significant difference between designation and purpose of visiting college library.
- ✓ There is no significant difference regarding the motivating factors to use ICT based on designation.

## Statistical tools Used

**In order to test the stated hypotheses the following statistical tools are used.**

**They are:**

- ✓ t-test (Independent samples t-test)
- ✓ ANOVA

## RESULT AND DISCUSSION

Table 1 : Distribution of respondents on the basis of age

Age	N	Percentage
21-30	449	45.72
31-40	445	45.31
41-50	75	7.63
51-60	13	1.32
Total	982	100.0

The Table indicates that 45.72% of the respondents are in the age group of 21-30; 45.31% of the respondents are in the age group of 31-40; 7.63% of the respondents are in the age group of 41-50 and 1.32% of the respondents are in the age group 51-60. So, majority of the respondents are in the age group of 21-30.

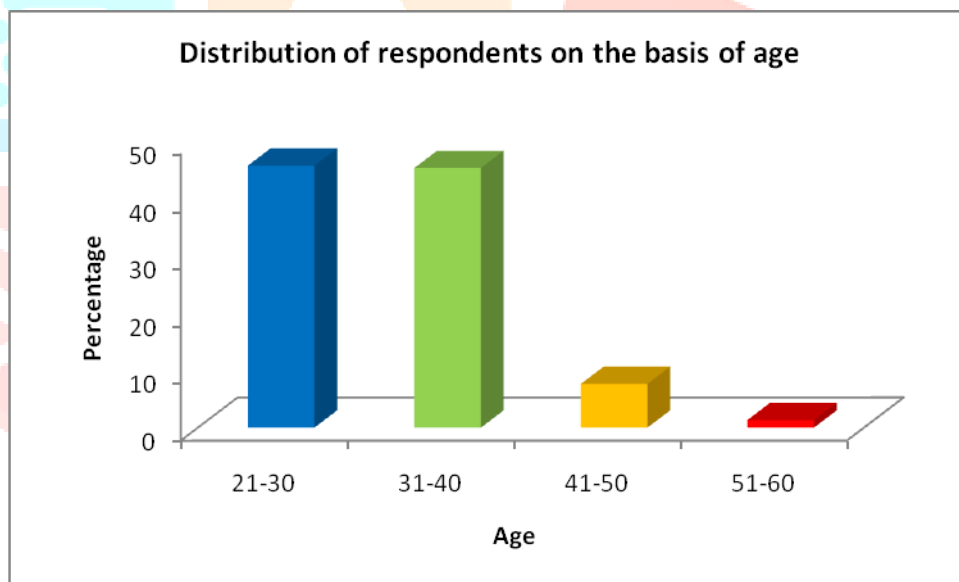
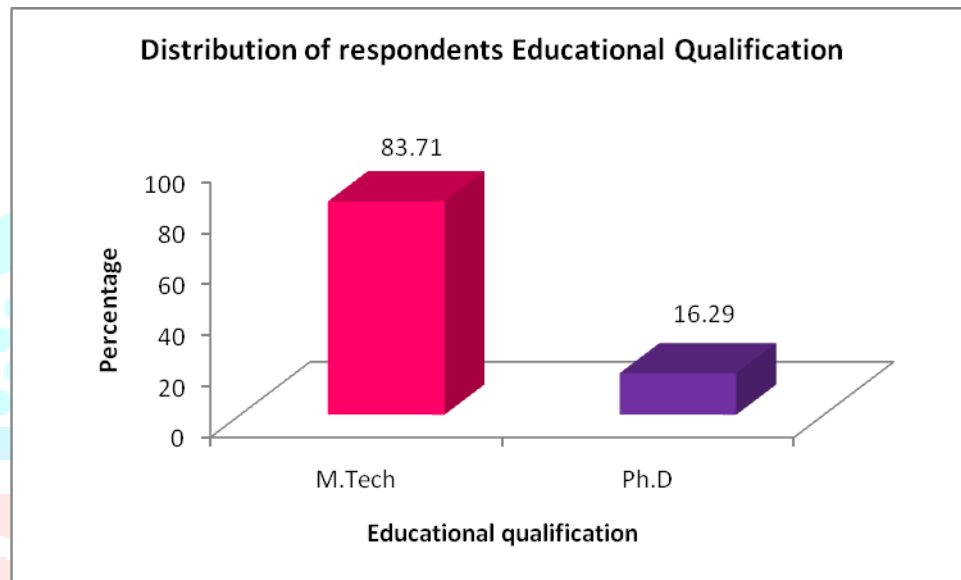


Table 2: Distribution of respondents Educational Qualification.

Educational qualification	N	Percentage
M.Tech	822	83.71
Ph.D	160	16.29
Total	982	100.0

The table indicates that 83.71% of the respondents are M.Tech level Education and 16.29% of the respondents are Ph.D. So, the most of them respondents are of M.Tech level Educational qualification.

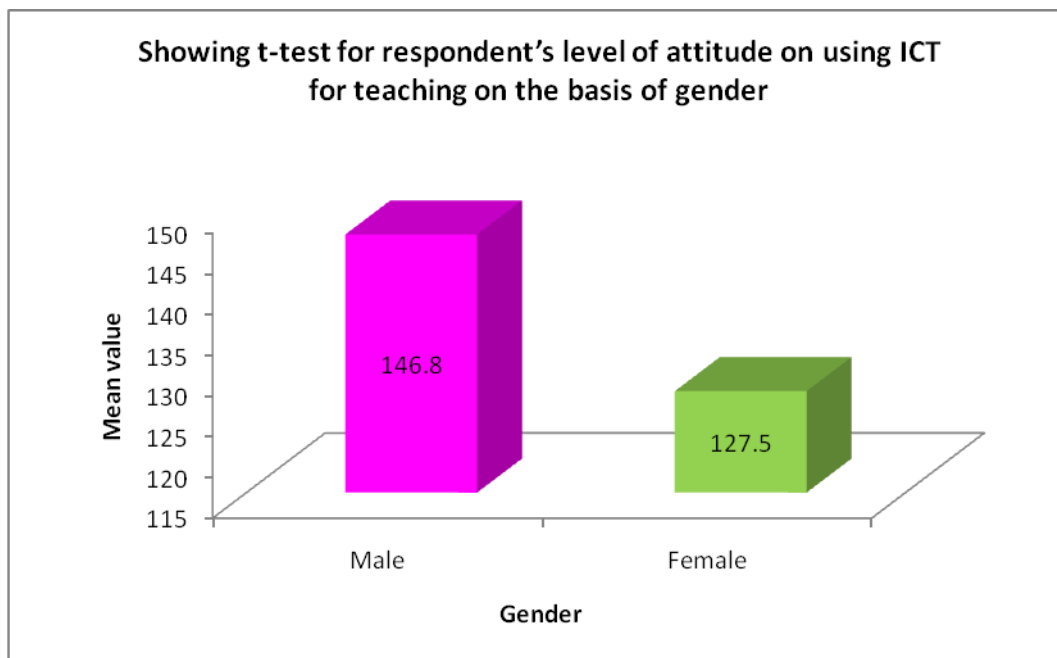


**Table 3: Showing t-test for respondent's level of attitude on using ICT for teaching on the basis of gender.**

Gender	Mean	SD	t-ratio	LS
Male	146.8	8.47	6.75	0.001
Female	127.5	6.04		Significant

Hy: Respondents do not differ in their level of attitude using the ICT for teaching on the basis of gender.

It is seen from the table that male respondents scored higher mean value than female groups. The obtained t-test also confirmed the mean difference, which is significant at 1% level. Hence the stated null hypothesis is rejected. Therefore it is concluded that respondents differ in their level of attitude using the ICT for teaching on the basis of gender. Male faculty members have better attitude using ICT for teaching.



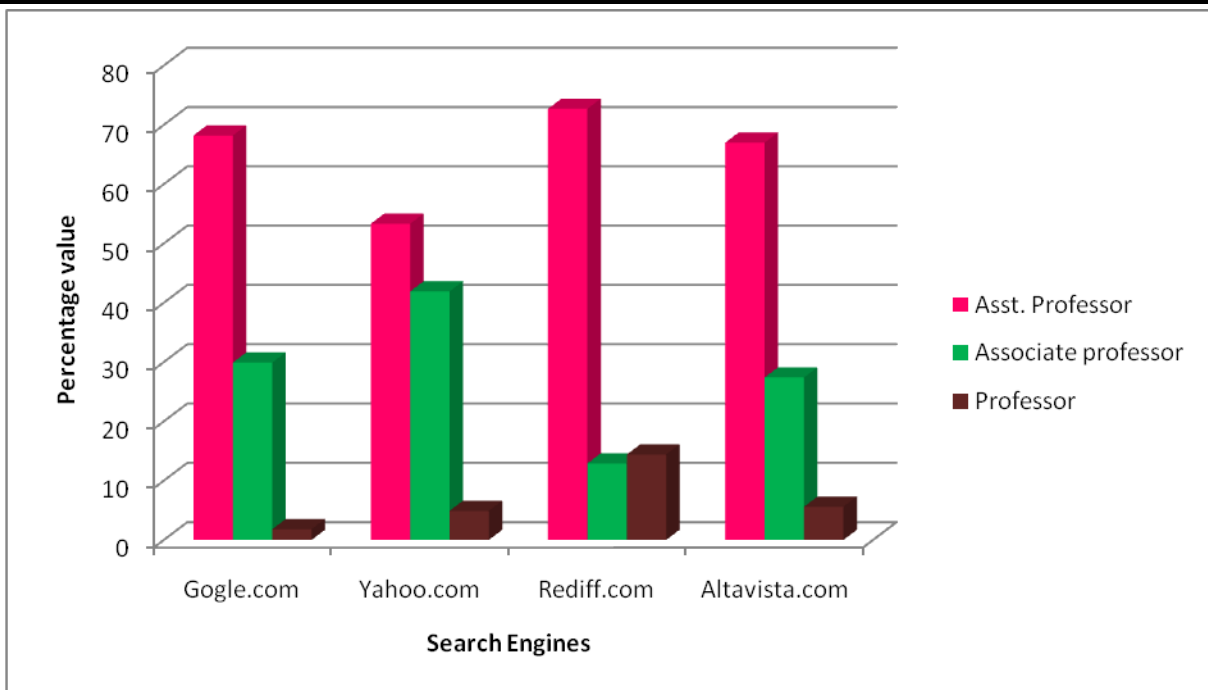
**Table 4: Types of using search engines for teaching / research**

Search Engines	Asst. Professor n=778	Associate. Professor n=125	Professor n=79	Total N=982
Google.com	670 (68.2)	294 (29.9)	18 (1.8)	982 (100.0)
Yahoo.com	523 (53.3)	412 (41.9)	47 (4.9)	982 (100.0)
Rediff.com	714 (72.7)	127 (12.9)	141 (14.4)	982 (100.0)
Altavista.com	658 (67.0)	269 (27.4)	55 (5.6)	982 (100.0)

**ANOVA**

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	5714.20	3	26548.30	12.26590	0.00011	4.757063
Columns	679672.2	2	339836.1	29.18697	0.00081	5.143253
Error	69860.5	6	11643.42			
Total	755246.9	11				





Based on the above table that among the various search engines majority of the assistant professors used Rediff followed by Google. But associate professors mostly used yahoo. Professors also used yahoo. This is confirmed by the obtained F-value which is significant.  $P < 0.01$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in purpose of using search engines and type of engines used for teaching and research.

**Table:5 Purpose of visiting college library**

Purpose	Asst. Professor n=778	Associate. Professor n=125	Professor n=79	Total N=982
For reading newspapers	11 (50.0)	5 (22.7)	6 (27.3)	22 (100.0)
For borrowing books	35 (62.5)	10 (17.85)	11 (19.64)	56 (100.0)
For using reference books	100 (67.11)	35 (23.48)	14 (9.39)	149 (100.0)
For consulting current periodicals	14 (58.33)	5 (20.83)	5 (20.83)	24 (100.0)
For using Internet	478 (83.56)	55 (9.61)	39 (6.81)	572 (100.0)
For getting required information	140 (88.05)	15 (9.43)	4 (2.51)	159 (100.0)

(Note: Numbers in parentheses indicate percentages)

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	72713.78	5	14542.76	2.635355	0.0237367	3.325835
Columns	50951.44	2	25475.72	2.864783	0.0103852	4.102821
Error	88927.22	10	8892.722			
Total	212592.4	17				

It is inferred from the ANOVA table that the calculated P-value is significant.  $P < 0.01$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in purpose of visiting college library based on designation. Majority of the respondents are using library for internet use and getting required information.

**Table:6 Motivating factors to use ICT**

Factors	Asst. Professor n=778	Associate. Professor n=125	Professor n=79	Total N=982
Attractiveness of the technology	175 (78.47)	23 (10.31)	25 (11.21)	223 (100.0)
Successful use of technology	135 (73.77)	30 (16.39)	18 (9.83)	183 (100.0)
Easy to modification	257 (85.38)	25 (8.30)	19 (6.31)	301 (100.0)
Easy to access	45 (58.44)	24 (31.16)	8 (10.38)	77 (100.0)
Less Time consuming	35 (62.5)	15 (26.78)	6 (10.71)	56 (100.0)
Inspiration from colleagues to use	131 (92.25)	8 (5.63)	3 (2.11)	142 (100.0)

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	14109.11	5	2821.822	2.342837	0.0122587	3.325835
Columns	50951.44	2	25475.72	12.12328	0.002123	4.102821
Error	21013.89	10	2101.389			
Total	86074.44	17				

It is observed from the ANOVA table that the calculated P-value is significant.  $P < 0.01$ . So the null hypothesis is rejected and alternate hypothesis is accepted. So it is concluded that there is a significant difference in motivating factors to use ICT based on designation. Easy to modification is the main motivating factor to use ICT.

**Table: 7 Summary of independent sample t-test by Gender**

Availability	Gender	N	Mean	Std. Deviation	t-value	p-value
Availability of ICT Equipment in College	Male	689	25.39	8.26	4.81	0.001 S
	Female	293	16.27	7.14		
Availability of ICT facilities/sources in College	Male	689	21.56	8.38	5.24	0.001 S
	Female	293	17.84	6.75		

S-Significant

It is evident from the above table that there is a significant difference in availability of ICT equipments and facilities based on gender. Male and Female differ in their opinion about the availability of ICT equipments and facilities in their college. Since the t-value is significant.  $P < 0.05$ . Therefore the stated hypothesis that there is a significant difference in availability of ICT equipments and facilities based on gender is accepted.

## Findings

**Some of the findings are arrived based on the statistical analysis. They are:**

- ✓ Majority of the respondents are in the age group of 21-30.
- ✓ Result shows that the most of them respondents are of M.Tech level Educational qualification.
- ✓ Analysis proves that respondents differ in their level of attitude using the ICT for teaching on the basis of gender.
- ✓ Research concluded that there is a significant difference in purpose of using search engines for teaching / research based on designation.
- ✓ Outcome concluded that there is a significant difference in purpose of visiting college library based on designation. Majority of the respondents are using library for internet use and getting required information.
- ✓ Analysis shows that there is a significant difference in motivating factors to use ICT.
- ✓ Result proves that there is no significant difference among the respondents of gender. Male and Female in the availability of ICT equipment at college. Further there is significant difference among the respondents male and female in the availability of ICT facilities in colleges.

## Conclusion

The present study made an attempt to know the use of ICT resources and services by the faculty members of engineering colleges in Andhrapradesh. The researcher selected 982 samples randomly in various colleges. Standard questionnaires are used to collect the primary data. The main objectives of this study is to know their attitude about ICT and the type of search engines used. Result found that male respondent have high level of attitude related to ICT and most of them are used google and yahoo. They are visited library to getting required information. Regarding the availability of ICT most of them satisfied.

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