

## KNOWLEDGE OF ICT AMONG THE FACULTY MEMBERS OF ARTS & SCIENCE COLLEGE IN KRISHNAGIRI DISTRICT

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### Abstract

*ICT is the main means of rapid change in today's Information society. The application of ICT facilitates easy and instantaneous access to information. The study reveals that how the faculty members using ICT facilities available in the Arts and science colleges in Krishnagiri district. It also found their knowledge about ICT Sources and Services, place of accessing, frequency of accessing and so on. In these articles, data's were collected from respondents and analyzed by using various simple frequency and other tools.*

**Keywords:** *Information and Communication Technology (ICT), Teaching, Research, search engines*

### Introduction

Information and Communication Technology (ICT) is the biggest technological achievement in the evolution of mankind. ICT, is often used as an extended synonym for Information Technology (IT), but is usually a more general term that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information. ICT has changed rapidly over the past ten years resulting in a significant shift of emphasis in all human activities.

It is a system that is designed to gather, process, or distribute information or it is the science and skill of all the aspects of computing, data storage and communication. ICT is a combination of tools and procedures that facilitate the generation, acquisition, storage, organization, retrieval, searching, viewing, updating and transmission of information using electronic means. Recent developments in the field of Information and Communication Technology are indeed revolutionary in nature. As its capabilities are increased they are being increasingly applied in all sectors of the society. The wide spread of ICT opens up new opportunities for information institutions like universities to harness these technologies and services to serve their goals. Consumption and production of information is entirely changed by the emergence of Information and Communication Technology. New and new information are produced in exponential growth and its subsequent dissemination has become more and more easy and fast due to the modern computer and communication technology.

The application of ICT facilitates easy and instantaneous access to information. It provides opportunities for libraries and information centres to widen the scope of their resources and services and to increase their significance within the organisation they serve. The increasing availability of information in machine readable forms allows many information needs to be satisfied with decreased involvement of libraries and librarians. Information is generated too faster that the libraries with traditional technologies are unable to handle.

### ICT in Education

ICT plays a vital role in today's global economy. It has made a significant impact in research and development. The research is being carried out in networking, computing, data representation and many other areas for exploring the existing methodologies. Education is changing with the advent of new interactive online learning technologies, and multimedia electronic libraries, which help in improving the sharing of knowledge and education practices.

ICT tools can be divided in the three categories in educational field. They are (i) Input Sources like computer, camera, application softwares etc. (ii) Output sources like projectors, monitors, televisions etc. (iii) Other sources like digital camera, switcher, audio video recording accessories etc.

As information and communication technology (ICT) plays a greater role across society including public and private education, countries around the world are more than ever in need of high quality internationally comparable statistics on ICT in education. In particular, indicators are essential for measuring and tracking the integration of ICT

and its impact given investment can constitute a significant portion of national education budgets, for many, if not most countries.

ICT plays an important role in higher education. It helps to increase variety of educational services & medium, promote equal opportunities to obtain education & information, develop a system of collecting & disseminating educational information, promote technology literacy and sharing experience & information with others.

### Literature Review

**Balasubramanian & Baladhandayutham (2008)** studied the information use pattern of faculty members in Madurai Kamaraj University. They concluded that 45 percent respondents getting information for preparation of lecture notes. Most of them used google as prime engine to search information, regularly they are using e-mail and they are faced the problems of lack of time and unavailability of information. .

**Kanniyappan et al., (2008)** studied the use of different types of e-resources by the faculty members of Anna University, Chennai. They found that the 71.33% of faculty members felt changes in the library due to computerization of library. 100% of the respondents having computer oriented knowledge. Most of the faculty members satisfied with email, Internet, OPAC system and online journal. They also found that majority of the faculty members feel about the printed journals will not become obsolete in future.

**Hema et al. (2013)** study indicates the use of ICT based resources and services in Arts and Science College Libraries by the PG students, Research scholars and Teachers in Puducherry. The study found that the colleagues/ classmates were the prime source for making the users themselves aware of ICT based resources. It is also found that majority of the respondents access ICT based resources through library computer centre. 35.74 percent of respondents have been accessing ICT based resources and services for two years.

**Isabella et. al (2013)** conducted a study among the difference of students and faculties of pharmacy colleges in Chennai. They focused about the place of access, search engine and browser used, method of learning to adopt of accessing the e-sources for the academic demand by the faculty and students.

**According to Saravanan and Mohammed Esmail (2015)**, e-resources have radical impact on the changing higher education environment and they conducted a study of information seeking behaviour of faculty and students of

Anna University in Thiruvallur district. They found that 98.55% respondents accessing e-resources, 99.05% respondents satisfying the services of e-resources, 97.17% of them are aware about e-resources.

**Chegoni (2017)** studied the use of e-resource by the students of Mahatma Gandhi University. In this article, he studied the teacher's perspective, purpose of using e-resources, place of accessing, regulatory of accessing and problems of accessing e-resources. He suggested conducting awareness programmes, trainings, workshops to improve their accessibility.

### Objectives

- To know the knowledge of ICT usage among the faculty members of Arts & Science colleges
- To understand the purpose of using ICT
- To examine the frequency of using ICT sources and services

### Methodology

The questionnaire based survey method used for data collection from the faculty members. The total numbers of 816 respondents were selected in Arts and Science College in Krishnagiri district. The collected data are analysed by using simple frequency, one sample t-test, cross tabulation.

### Analysis of Data

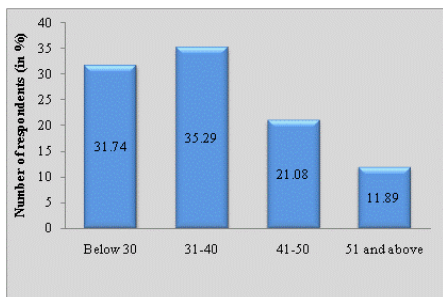
In this paper, data were collected from faculty members of Arts and Science College and the data was analysed and interpreted with necessary standard statistical techniques. All the results have been presents in the term of tables and figures. Total numbers of 1000 questionnaires were distributed and 816 questionnaires were received back. The overall responses are 81.6%.

**Table 1: Age wise distribution of the respondents**

| Classification | No. of respondents | Percentage |
|----------------|--------------------|------------|
| Below 30       | 259                | 31.74      |
| 31-40          | 288                | 35.29      |
| 41-50          | 172                | 21.08      |
| 51 and above   | 97                 | 11.89      |
| Total          | 816                | 100        |

**Source:** Primary data

Table 1 shows the age wise distribution of selected respondents in Arts and Science Colleges in Krishnagiri district. 35.29% of the respondents are in the age group of 31-40 years, 31.74% are less than 30 years, 21.08% falls in the age group of 41-50 years and 11.89% of them are more than 51 years.

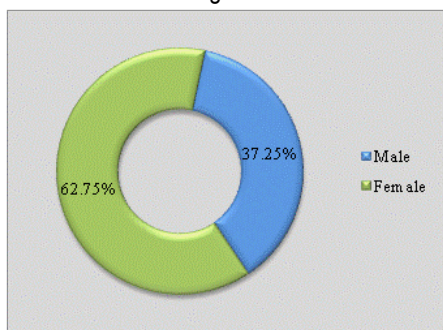


**Table 2: Sex wise Distribution of the Respondents**

| Classification | No. of respondents | Percentage |
|----------------|--------------------|------------|
| Male           | 304                | 37.25      |
| Female         | 512                | 62.75      |
| Total          | 816                | 100        |

**Source:** Primary data

Table 2 described the sex wise distribution of selected respondents in Arts and Science Colleges in Krishnagiri district. In the selected 816 respondents, 62.7% of them are female and the remaining 37.25% are male.

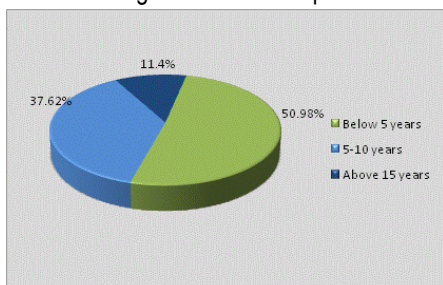


**Table 3: Experience wise distribution of the respondents**

| Classification | No. of respondents | Percentage |
|----------------|--------------------|------------|
| Below 5 years  | 416                | 50.98      |
| 5-10 years     | 307                | 37.62      |
| Above 15 years | 93                 | 11.4       |
| Total          | 816                | 100        |

**Source:** Primary data

50.98% of the respondents working in the Arts and Science Colleges are having less than 5 years experience in similar field, 37.62% of them having 5-10 years and 11.4% of them having more than 15 experiences.

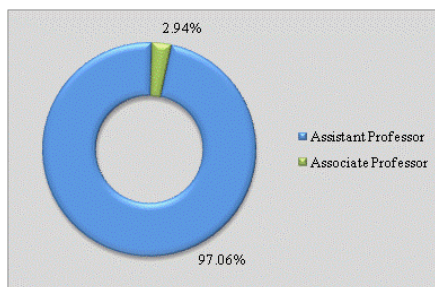


**Table 4: Designation wise Distribution of the Respondents**

| Classification      | No. of respondents | Percentage |
|---------------------|--------------------|------------|
| Assistant Professor | 792                | 97.06      |
| Associate Professor | 24                 | 2.94       |
| Total               | 816                | 100        |

**Source:** Primary data

In the above table 4, selected respondents designation was described. Out of 816 respondents in selected faculties in Arts and Science College in Krishnagiri district, most of the respondents (97.06%) are Assistant Professor and the remaining 2.94% of the respondents Associate Professor.



**Table 5: Place of accessing Vs Age**

**Source:** Primary data

Table 5 reveals the respondent opinion of place of accessing ICT sources and services in Arts and Science College in Krishnagiri district. 19.79% of the respondents in the age group of 31-40 years are using ICT sources and services at home, 38.14% of them used at browsing centre are with the age group of above 50 years, 23.26% of respondents with the age group of 41-50 years are access at their college department, 37.45% of the respondents in the age group of below 30 years are access at college library and 7.56% of the respondents of 41-50 years are access ICT sources and services in other places.

**Table 6: Place of accessing Vs Sex**

|                 |   | Male  | Female | Total |
|-----------------|---|-------|--------|-------|
| Home            | N | 60    | 78     | 138   |
|                 | % | 19.74 | 15.23  | 13.73 |
| Browsing centre | N | 84    | 133    | 217   |
|                 | % | 27.63 | 25.98  | 15.56 |
| Departments     | N | 42    | 109    | 151   |
|                 | % | 13.82 | 21.29  | 23.41 |
| Library         | N | 97    | 166    | 263   |
|                 | % | 31.91 | 32.42  | 43.14 |
| Others          | N | 21    | 26     | 47    |
|                 | % | 6.908 | 5.078  | 4.167 |
| Total           | N | 304   | 512    | 816   |
|                 | % | 37.25 | 62.75  | 100   |

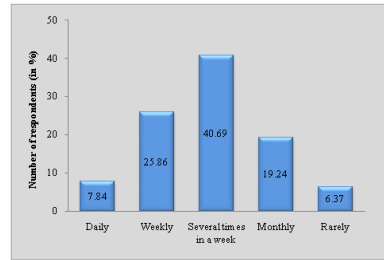
Source: Primary data

In the above table, Place of accessing ICT sources and services by the respondents were described based on their sex. 19.73% of male accessed ICT sources at home, 27.63% of them used at browsing centre, 21.29% of the female access at college department, 32.42% of the female using at library and 6.9% of male gender accessing ICT sources in other places.

**Table 7: Frequency of accessing Vs age**

| Classification          | No. of respondents | Percentage |
|-------------------------|--------------------|------------|
| Daily                   | 64                 | 7.84       |
| Weekly                  | 211                | 25.86      |
| Several times in a week | 332                | 40.69      |
| Monthly                 | 157                | 19.24      |
| Rarely                  | 52                 | 6.37       |
| Total                   | 816                | 100        |

In the above table, the respondent's frequency of accessing ICT sources and services were described. 40.69% of the respondents accessing ICT sources several times in a week, 25.86% accessing weekly once, 19.24% access monthly once, 7.84% used daily and 6.37% of the respondents accessing ICT sources rarely.

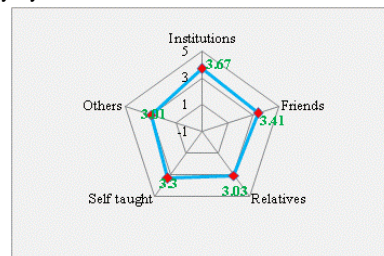


**Table 8: One sample test for Motivational factors in ICT**

|              | Mean | SD    | t-value  | p-value |
|--------------|------|-------|----------|---------|
| Institutions | 3.67 | 1.370 | 76.428** | .000    |
| Friends      | 3.41 | 1.496 | 56.057** | .000    |
| Relatives    | 3.03 | 1.620 | 53.548** | .000    |
| Self taught  | 3.30 | 1.297 | 79.376** | .000    |
| Others       | 3.01 | 1.308 | 81.296** | .000    |

\*\*Significant at 1% level

Table 8 shows the perception on motivational factors of selected respondents of Arts and Science College in Krishnagiri district. The t-values of the variables: 76.428, 56.057, 53.548, 79.376 and 81.296 are significant at 1% level. This shows that there is significant difference between the mean responses given by the respondents towards motivational factors in ICT, the null hypothesis is rejected. Further the mean score of the variables; Institutions (3.67), Friends (3.41), Relatives (3.03), Self taught (3.30), Others (3.01) are higher than the average mean score. This shows that the respondents are motivated to utilize ICT sources and services very effectively by means of institutions, friends and self taught.



**Figure 4: Radar diagram shows the mean responses for motivation factors of ICT**

**Table 9: Knowledge about ICT sources and services**

|                  | Don't Know |       | Beginner |       | Fair |       | Expert |       | Proficient |       |
|------------------|------------|-------|----------|-------|------|-------|--------|-------|------------|-------|
|                  | N          | %     | N        | %     | N    | %     | N      | %     | N          | %     |
| Internet         | 16         | 1.961 | 19       | 2.328 | 563  | 69    | 231    | 28.31 | 3          | 0.368 |
| E-mail           | 4          | 0.49  | 15       | 1.838 | 547  | 67.03 | 231    | 28.31 | 3          | 0.368 |
| SMS / MMS        | 46         | 5.637 | 164      | 20.1  | 469  | 57.48 | 137    | 16.79 | 0          | 0     |
| Telephone        | 0          | 0     | 126      | 15.44 | 672  | 82.35 | 13     | 1.593 | 5          | 0.613 |
| Mobile Phone     | 12         | 1.471 | 227      | 27.82 | 362  | 44.36 | 194    | 23.77 | 21         | 2.574 |
| CDs              | 61         | 7.475 | 178      | 21.81 | 489  | 59.93 | 72     | 8.824 | 16         | 1.961 |
| Fax              | 473        | 57.97 | 156      | 19.12 | 175  | 21.45 | 8      | 0.98  | 4          | 0.49  |
| Web Camera       | 538        | 65.93 | 191      | 23.41 | 76   | 9.314 | 11     | 1.348 | 0          | 0     |
| Video conference | 424        | 51.96 | 288      | 35.29 | 92   | 11.27 | 9      | 1.103 | 3          | 0.368 |
| Chatting         | 397        | 48.65 | 284      | 34.8  | 121  | 14.83 | 11     | 1.348 | 3          | 0.368 |

Table 9 exhibits the respondents knowledge about ICT sources and services. 69% of the respondents having fair knowledge about internet, 67.03% of them getting e-mail knowledge, 57.48% on SMS/MMS, 82.35% getting knowledge about telephone, 44.36% on mobile phone, 59.93% on CDs, 57.97% of respondents do not having knowledge about fax, 65.93% don't know web camera source, 51.96% don't know about video conference and the majority of 48.65% of the respondents does not having chatting knowledge.

### Major Findings

- 35.29% of the respondents are in the age group of 31-40 years,
- 62.7% of them are female and the remaining 37.25% are male.
- 37.45% of the respondents in the age group of below 30 years are access at college library
- 40.69% of the respondents accessing ICT sources several times in a week
- The respondents are motivated to utilize ICT sources and services very effectively by means of institutions, friends and self taught.

### Major Limitations

- The present study has been conducted only among the faculty members of Arts & Science College
- The area of the study restricted only twelve colleges affiliated to Periyar University of Krishnagiri District.

### Conclusion

The present study reveals that there is increased acceptance of electronic sources and services by the faculty members in Arts and Science College in Krishnagiri district. The rapid developments in ICT have facilitated the convergence of new electronic devices and formats. A rapid change in information seeking behaviour and use of Internet and On-line access of E-Resources has become

the vital part of various information needs. The respondents of faculty members are in the age group of below 30 years are more aware about ICT. 43.14% of the faculty members utilized ICT services in library 69% of the respondents having fair knowledge about internet.

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