



# USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) BY FACULTY IN LBS INSTITUTE OF TECHNOLOGY FOR WOMEN, POOJAPPURA, KERALA

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**Abstract:** *The study has investigated the use of information and communication technology (ICT) by faculty in LBS Institute of Technology for Women, Poojappura. The main purpose of the study is to find out the awareness, availability and use of ICT by faculty in LBS institute of technology for women and problems faced by them while using library. The population of the study is the faculty in LBS Institute of Technology for Women, Poojappura. The size of the population is 48 faculty. Collected data were analysed both quantitatively and qualitatively to reach a conclusion. Percentage method is used for quantitative analysis. The analysis revealed that the majority of the faculty have awareness, availability and use of internet and Wi-Fi scanner and printer, barcode reader, digital library and CCTV, blog, OPAC, online reservation, e- resources. It is clear from the analysis that, majority of the faculty acquire ICT skills as a part of their education and trial & error method.*

**Keywords:** Information and Communication Technology, Faculty, LBS Institute of Technology for Women

## 1. INTRODUCTION

Information Communication Technology (ICT) acts as a catalyst in the achievement of national advancement and development. ICT have transformed libraries and information centres globally. ICT is a term used in the library to refer to application of computers and other technologies to library practices such as acquisition, storage, organization and dissemination of information. ICTs offer sufficient opportunities for libraries to automate the traditional activities, implement effective library co-operation and resource sharing networks, develop institutional repositories or digital libraries, provide value-added information services and initiate capacity building programs for the library staff and the users. The ICTs are used in libraries to provide better security services and fulfil the needs of the user as per their requirement. The ICT based resources help to save the library space by using the electronic storage media and virtual learning activities. It fundamentally changes the access, storage and dissemination of information and facilitates global interconnectivity and accelerated information exchange.

Faculties are the professionals who have the ability to guide students in the right way. Faculties in the engineering college provide proper guidance to the engineering students to become experts in their specialised fields. They help to achieve student's goals and give shape to the future engineers. In the

technological explosion scenario, the classroom teaching method is changing and students learn from a variety of ICT sources. So, it is very important that teachers must be knowledgeable in these areas. LBS Institute of Technology for Women, Poojappura, is the first women engineering college in the state, managed by LBS Centre for Science and Technology (LBSCST), Thiruvananthapuram. LBSITW is the only engineering college for women in the government sector in the state of Kerala. The study tends to know the use of information and communication technology (ICT) by faculty in LBS institute of technology for women, Poojappura.

## 2. LITERATURE REVIEW

**Ezecheta (2022)** studied the extent of availability and utilization of ICT facilities by undergraduate students for research in academic libraries of Rhema University, Aba. The objectives of the study were to ascertain the extent of availability of ICT and benefits of ICT facilities to research, to find out the extent to which these facilities are being utilized for research and find out some of the problems that hinder undergraduates in the utilization of ICT facilities. The methodology of the study includes a descriptive survey design. The population of the study consisted of all undergraduate students' users of Rhema University library. The sample size for the study is 758 students and a purposive sampling technique was used to sample a total of 200 respondents for the study. Questionnaire method is used for data collection. Method of data analysis was descriptive statistics of mean score and standard deviation. Out of the total of 200 copies of questionnaires distributed, 96.5% was successfully returned. The analysis of the result shows that some facilities such as Computers, reprographic devices, CD-ROMs, Online Databases, E-books, Internet Connectivity, and Online Catalogue were mostly available and also these facilities were the most utilized by the undergraduate researchers with Computers, Internet Connectivity, and reprographic devices. However, challenges such as epileptic power supply, frequent breakdown of facilities, poor internet connection, and lack of up-to-date ICT facilities hindered effective utilization. The study concluded by the recommendation such as purchase and building of power stations to ensure regular power supply because these resources could only be utilized using power supply.

**Olubiyo (2021)** conducted a study on electronic information resources utilization among physical sciences postgraduate students in Federal university libraries, South West, Nigeria. The objectives of the study are to find out the available electronic information resources, to investigate the purposes of e-resources utilization, purpose and challenges facing physical science postgraduate students on e-resources utilization and to find out the strategies to enhance effective utilization of e-resources by physical science postgraduate students. The research design that was used for this study is descriptive survey design. The population of the study consists of 937 postgraduate students in the physical sciences in the five federal universities in the south western zone of Nigeria. 312 students were considered as samples by quota sampling method. The study concluded by the recommendation that electronic resources are an integral part of library resources. Therefore, it should be acquired professionally and systematically. The resources need to be made accessible to the users for the goal of the library organisation to be achieved. It can therefore be recommended that users should acquire the skills needed for the purpose of utilizing the resources.

**Ranganadham (2021)** examined a study on awareness and use of online databases by research scholars in Sri Venkateswara University of Tirupati. The specific objectives of the study are to know about the frequency and place of accessing online database

among research scholars of Sri Venkateswara University, to find out the use and purpose of using online databases., to find out the method of search and access of online databases by respondents, to ascertain satisfaction of the respondents of respondents with infrastructure to support accessing of online databases and to find out the training needs of user orientation program. Survey method was used in this study and questionnaire was the tool used to collect the data. 200 questionnaires are distributed among research scholars among this only 175 were filled. After collecting data, it was analyzed and interpreted in the form of tables and graphs. The study concluded that the library is developing to satisfy the users with well-equipped technologies. This study suggested that frequent training facilities must be provided to users to keep themselves up-to-date to the latest information and technologies. Users should create awareness and acquaintance with electronic resources which is a healthy sign towards seeking information utilizing e-resources and motivating users to use electronic databases. Orientation programmes must be provided to new users at the beginning of every year.

### 3. RELEVANCE OF THE STUDY

Modern technical educational institutions must benefit greatly from the use of libraries. The users' complicated information needs ought to be able to be met by it. The performance of libraries has increased as a result of advancements in information and communication technologies. They offer numerous technical means of getting the appropriate users the right information at the right time in the right manner. The use of ICT has enabled libraries to give the staff an opportunity to know current trends in their profession. This has enabled the efficiency and effectiveness of their service and fulfil the information needs of users. The use of ICT provides quality information handling. It also builds a strong and effective communication system. The utilization of ICT has facilitated the acquisition of knowledge and skills by users through the application of modern methods of acquisition, storage, retrieval and dissemination of information. The study aims to find out the use of information and communication technology (ICT) by faculty in LBS institute of technology for women, Poojappura. The study will be useful to find out the attitude of faculty in the college towards ICT facilities provided by the library and will give an insight to the administrators about the use or non-use of ICT facilities in the institution.

### 4. OBJECTIVES

The objectives of the study are follows:

1. To know the awareness of ICT facilities by faculty in LBS Institute of Technology for Women, Poojappura.
2. To identify the availability and use of ICT facilities by faculty.
3. To know the impact of ICT in teaching activities.
4. To determine the challenges of using ICT tools.
5. To know the level of satisfaction regarding ICT facilities provided by the library

### 5. METHODOLOGY

The investigator started the research work with a detailed literature search on the topic of research, consulting the sources such as N-LIST, EBSCOHost, Google Scholar and DOAJ. Further, the methodology adopted for the study is the survey method. Questionnaire method is the technique applied under the survey method. The faculty of the LBS Institute of Technology for Women, Poojappura were taken as the population of the study. The college offers B.Tech, M.Tech, PhD courses and applied science. The total number of faculties in the college was 48 and all of them have been included in the study. 40 filled questionnaires received. The filled questionnaires were collected within four days. As regards the details of the existing ICT facilities provided by the library, the investigator has collected the relevant data from the librarian through the questionnaire. Table 1 shows percentage of response.

**Table 1: Percentage of Response**

Category of Users	No. of Questionnaires Distributed	No. of Questionnaires Received	Percentage (%)
Faculty	48	40	83.34%

### 6. ANALYSIS OF DATA

#### 6.1 Awareness, Use, and Availability of the ICT Facilities

A question was asked to know the awareness, use, and availability of the ICT facilities in the library.

**Table 2: Awareness, Use, and Availability of the ICT Facilities**

Sl. No.	ICT Facilities	Number of Response and Percentage (%)					
		Awareness		Availability		Use	
		Yes	No	Yes	No	Yes	No
1	RFID	32 (80 %)	8 (20 %)	2 (5 %)	30 (75 %)	0	32 (100 %)
2	Blog	38 (95 %)	2 (5 %)	30 (75 %)	8 (20 %)	25 (65.79 %)	13 (34.21 %)
3	Internet & Wi-Fi	40 (100 %)	0	40 (100 %)	0	40 (100 %)	0
4	Scanner & Printer	40 (100 %)	0	38 (95 %)	2 (5 %)	35 (87.5 %)	5 (12.5 %)
5	Document Delivery Service (DDS)	30 (75 %)	10 (25 %)	17 (42.5 %)	13 (32.5 %)	25 (83.34 %)	5 (16.67 %)
6	Current Awareness Service (CAS)	26 (65 %)	14 (35 %)	15 (37.5 %)	11 (27.5 %)	12 (46.15 %)	14 (53.85 %)
7	Bulletin Board System (BBS)	28 (70 %)	12 (30 %)	23 (57.5 %)	5 (12.5 %)	16 (57.14 %)	12 (42.86 %)
8	E-resources	39 (97.5 %)	1 (2.5 %)	38 (95 %)	1 (2.5 %)	35 (89.74 %)	4 (10.26 %)
9	Barcode reader	40 (100 %)	0	39 (97.5 %)	1 (2.5 %)	38 (95 %)	2 (5 %)
10	OPAC	33 (82.5 %)	7 (17.5 %)	32 (80 %)	1 (2.5 %)	30 (90.91 %)	3 (9.91 %)
11	Library Website	29 (72.5 %)	11 (27.5 %)	25 (62.5 %)	4 (10 %)	20 (68.96 %)	9 (31.03 %)
12	Digital Library	40 (100 %)	0	40 (100 %)	0	37 (92.5 %)	3 (7.5 %)
13	CCTV	40 (100 %)	0	14 (35 %)	26 (65 %)	14 (35 %)	26 (65 %)
14	Online reservation	21 (52.5 %)	19 (47.5 %)	18 (45 %)	3 (7.5 %)	9 (42.86 %)	12 (57.14 %)
15	Photocopy Service	34 (85 %)	6 (15 %)	30 (75 %)	4 (10 %)	15 (44.12 %)	19 (55.88 %)
16	Indexing and Abstracting service	19 (47.5 %)	21 (52.5 %)	15 (37.5 %)	4 (10 %)	5 (26.32 %)	14 (73.68 %)



Table 2 indicates that:

### **Awareness**

100% of respondents are aware about internet and Wi-Fi, scanner and printer, barcode reader, digital library and CCTV followed by e-resources (97.5%), blog (95%), photocopy service (85%), OPAC (82.5%), RFID (80%), document delivery service (75%), library website (72.5%), bulletin board system (70%), current awareness service(65%), online reservation (52.5%), and indexing and abstracting service (47.5%).

52.5% of respondents are not aware about indexing and abstracting service followed by online reservation (47.5%), current awareness service (35%), bulletin board system (30%), library website (27.5%), document delivery service (25%), RFID (20%), OPAC (17.5%), photocopy service (15%), blog (5%) and e-resources (2.5%).

### **Availability:**

100% of respondents opined that they have availability of internet and Wi-Fi and digital library followed by barcode reader (97.5%), scanner and printer and e-resources (95%), OPAC (80%), blog and photocopy service (75%), library website (62.5%), bulletin board system (57.5%), online reservation (45%), document delivery service (42.5%), current awareness service and indexing and abstracting service (37.5%), CCTV (35%), and RFID (5%).

75% of respondents opined that they have no availability of RFID followed by CCTV (65%), document delivery service (32.5%), current awareness service (27.5%), blog (20%), bulletin board system (12.5%), library website (10%), online reservation (7.5%), photocopy service and indexing and abstracting service (10%), scanner and printer (5%) and e-resources, barcode reader, OPAC (2.5%).

### **Use:**

100% of respondents use internet and Wi-Fi followed by barcode reader (95%), digital library (92.5%), OPAC (90.91%), e-resources (89.74%), scanner and printer (87.5%), document delivery service (83.34%), library website (68.96 %), blog (65.79%), bulletin board system (57.14%), current awareness service (46.15%), photocopy service (44.12%), online reservation (42.86%), CCTV (35%), and indexing and abstracting service (26.32%).

100 % of respondents did not use RFID followed by indexing and abstracting service (73.68%), CCTV (65%), online reservation (57.14%), photocopy service (55.88%), current awareness service (53.85%), bulletin board system (42.86%), blog (34.21%), library website (31.03%), document delivery service (16.67%), scanner & printer (12.5%), e-resources (10.26%) OPAC (9.91%), digital library (7.5%) and barcode reader (5%).

## 6.2 Impact of ICT on academic and other activities

A question was asked to know the impact of ICT on their academic and other activities and requested to rank them according to its priority.

**Table 3: Impact of ICT**

Sl. No.	Type of Impact	Number of Response and Percentage (%)								
		1	2	3	4	5	6	7	8	9
1	Upgrade my knowledge & skill	33 (82.5 %)	2 (5 %)	1 (2.5 %)	1 (2.5 %)	0	0	0	0	0
2	Made my work easy and fast	25 (62.5 %)	6 (15 %)	4 (25 %)	2 (5 %)	0	0	1 (2.5 %)	0	0
3	Influence access to wide range of information	17 (42.5 %)	4 (25 %)	3 (7.5 %)	3 (7.5 %)	1 (2.5 %)	1 (2.5 %)	1 (2.5 %)	0	0
4	Made it mandatory to learn	10 (25 %)	5 (12.5 %)	2 (5 %)	2 (5 %)	1 (2.5 %)	2 (5 %)	0	1 (2.5 %)	2 (5 %)
5	To use modern technologies	22 (55 %)	4 (2.5 %)	3 (7.5 %)	0	3 (7.5 %)	0	0	0	1 (2.5 %)
6	Enabled rapid communication	8 (20 %)	5 (12.5 %)	3 (7.5 %)	2 (5 %)	2 (5 %)	2 (5 %)	1 (2.5 %)	0	1 (2.5 %)

7	Helped to keep me up to date	19 (47.5 %)	1 (2.5 %)	3 (7.5 %)	1 (2.5 %)	1 (2.5 %)	3 (7.5 %)	2 (5 %)	2 (5 %)	1 (2.5 %)
8	Reduce physical work/activity/movement	10 (25 %)	9 (22.5 %)	0	1 (2.5 %)	1 (2.5 %)	1 (2.5 %)	2 (5 %)	4 (10 %)	0
9	Improved my competency and performance	14 (35 %)	5 (12.5 %)	2 (5 %)	1 (2.5 %)	1 (2.5 %)	1 (2.5 %)	2 (5 %)	1 (2.5 %)	2 (5 %)

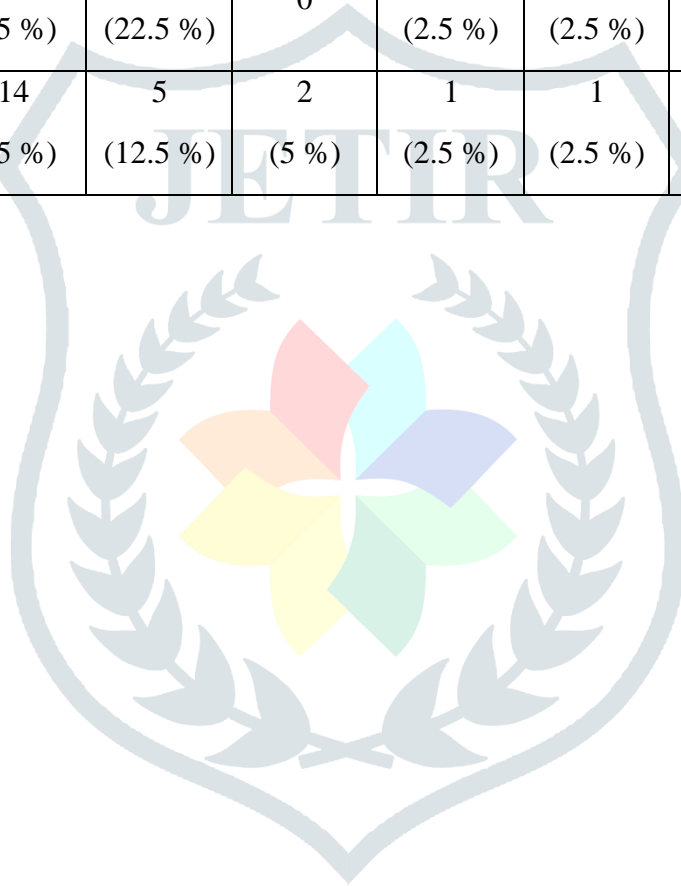


Table 3 indicates that 8.25% of the respondents opined that ICT helps them to upgrade their knowledge & skill followed by made my work easy and fast (62.5%), to use modern technologies (55%), helped to keep me up to date (47.5%), access to wide range of information (42.5%), improved my competency and performance (35%), made it mandatory to learn and reduce physical work/activity/movement (25%), and enabled rapid communication (20%).

25% of the respondents opined that ICT helps them to influence access to wide range of information followed by reduce physical work/activity/movement (22.5%), made my work easy and fast (15%), made it mandatory to learn, enabled rapid communication and improved my competency and performance (12.5%), upgrade my knowledge & skill (5%), to use modern technologies and helped to keep me up to date (2.5%).

### 6.3 Level of Satisfaction

A question was asked to indicate the level of satisfaction about the ICT facilities.

**Table 4 : Level of Satisfaction**

Sl. No.	Satisfaction Level	Number of Response	Percentage (%)
1	Highly Satisfied	4	10 %
2	Partially Satisfied	20	50%
3	Satisfied	15	37.5 %
4	Not Satisfied	1	2.5 %

The above table 4 revealed that half of the respondents 50% are partially satisfied with the ICT facilities provided by the library followed by 37.5% are satisfied, 10% are highly satisfied and only 2.5% are not satisfied.



## 6.4 Problems

A question was asked to the respondents to identify the factors inhibiting usage of ICT.

**Table 5 Problems in Using ICT**

Sl. No.	Problems	Number of Response and Percentage (%)			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	Lack of ICT skills	4 (10 %)	25 (62.5 %)	5 (12.5 %)	0
2	Information overload	8 (20 %)	20 (50 %)	2 (5 %)	1 (2.5 %)
3	Lack of Time	21 (52.5 %)	16 (40 %)	2 (5 %)	0
4	Lack of computer	14 (35 %)	16 (40 %)	4 (10 %)	1 (2.5 %)
5	Infrastructure unavailability	9 (22.5 %)	19 (47.5 %)	4 (10 %)	0
6	Difficulty to read from computer	4 (10 %)	12 (30 %)	16 (40 %)	2 (5 %)
7	Power supply	3 (7.5 %)	7 (17.5 %)	18 (45 %)	7 (17.5 %)

Table 5 indicates 52.5% of the respondents strongly agree with lack of time was a problem in using ICT followed by lack of computer (35%), infrastructure unavailability (22.5%), information overload (20%), lack of ICT skills and difficulty to read from computer (10%) and power supply (7.5%).

62.5% of the respondents agree with lack of ICT skills was a problem in using ICT followed by information overload (50%), infrastructure unavailability (47.5%), lack of time and lack of computer (40%), difficulty to read from computer (30%) and power supply (17.5%).

## 7. MAJOR FINDINGS

Analysis revealed that the majority of the faculty have awareness, availability and use of internet and Wi-Fi scanner and printer, barcode reader, digital library and CCTV, blog, OPAC, online reservation, e-resources. It is clear from the analysis that, majority of the faculty acquire ICT skills as a part of their education and trial & error method.

Prior impact of ICT is, ICT helps them to upgrade their knowledge & skill followed by making their work easy and fast and to use modern technologies. Half of the faculty are partially satisfied with the ICT facilities provided by the library. Analysis revealed that lack of time was the major problem in using ICT. Majority of the faculty suggested that they need an orientation and training programme to improve the ICT skills followed by demands to increase working time of the library.

## 8. SUGGESTIONS

It is found that library do not provide RFID technology. But some of the faculty respond that RFID is available in the library. This clearly shows the unawareness of the faculties towards the modern ICT technologies. So, give proper orientation to the faculty about ICT technologies. The study also recommended providing RFID technology in the library so that a lot of librarian time could be saved and theft of library materials can be reduced. The library has to provide periodic training on ICT skills to eliminate the problems such as the lack of time, information overload, complexity of operating ICT tools and lack of knowledge to operate ICT tools expressed by the faculty. Shortage of time spent using the library by the faculty can be eliminated to a great extent by increasing the working hours of the library. Provide uninterrupted power supply to the library.

## 9. CONCLUSION

Libraries are the storehouse of information. The internet has provided universal access to information. The process of distribution information is now being facilitated through the use of ICT. It is also used in libraries for development of new information services and improving the productivity and efficiency of library services. The study tries to find out the use of Information and Communication Technology (ICT) by faculty in LBS Institute of Technology for Women, Poojappura. Proper measures shall be taken to initiate them to make its proper use and to reap its benefits. Results of this study can help librarians to better understand some of the basic ICT tools that can be used in an academic library environment to help improve efficiency and service delivery to the library users.

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