

Vol 7 Issue 3 Dec 2017

ISSN No : 2249-894X

*Monthly Multidisciplinary
Research Journal*

*Review Of
Research Journal*

Chief Editors

Ashok Yakkaldevi
A R Burla College, India

Ecaterina Patrascu
Spiru Haret University, Bucharest

Kamani Perera
Regional Centre For Strategic Studies,
Sri Lanka

Welcome to Review Of Research

RNI MAHMUL/2011/38595

ISSN No.2249-894X

Review Of Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

Regional Editor

Dr. T. Manichander

Sanjeev Kumar Mishra

Advisory Board

Kamani Perera Regional Centre For Strategic Studies, Sri Lanka	Delia Serbescu Spiru Haret University, Bucharest, Romania	Mabel Miao Center for China and Globalization, China
Ecaterina Patrascu Spiru Haret University, Bucharest	Xiaohua Yang University of San Francisco, San Francisco	Ruth Wolf University Walla, Israel
Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Karina Xavier Massachusetts Institute of Technology (MIT), USA	Jie Hao University of Sydney, Australia
Anna Maria Constantinovici AL. I. Cuza University, Romania	May Hongmei Gao Kennesaw State University, USA	Pei-Shan Kao Andrea University of Essex, United Kingdom
Romona Mihaila Spiru Haret University, Romania	Marc Fetscherin Rollins College, USA	Loredana Bosca Spiru Haret University, Romania
	Liu Chen Beijing Foreign Studies University, China	Ilie Pinte Spiru Haret University, Romania
Mahdi Moharrampour Islamic Azad University buinzahra Branch, Qazvin, Iran	Nimita Khanna Director, Isara Institute of Management, New Delhi	Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai
Titus Pop PhD, Partium Christian University, Oradea, Romania	Salve R. N. Department of Sociology, Shivaji University, Kolhapur	Sonal Singh Vikram University, Ujjain
J. K. VIJAYAKUMAR King Abdullah University of Science & Technology, Saudi Arabia.	P. Malyadri Government Degree College, Tandur, A.P.	Jayashree Patil-Dake MBA Department of Badruka College Commerce and Arts Post Graduate Centre (BCCAPGC), Kachiguda, Hyderabad
George - Calin SERITAN Postdoctoral Researcher Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, Iasi	S. D. Sindkhedkar PSGVP Mandal's Arts, Science and Commerce College, Shahada [M.S.]	Maj. Dr. S. Bakhtiar Choudhary Director, Hyderabad AP India.
REZA KAFIPOUR Shiraz University of Medical Sciences Shiraz, Iran	Anurag Misra DBS College, Kanpur	AR. SARAVANAKUMAR LAGAPPA UNIVERSITY, KARAIKUDI, TN
Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur	C. D. Balaji Panimalar Engineering College, Chennai	V. MAHALAKSHMI Dean, Panimalar Engineering College
Awadhesh Kumar Shirotriya	Bhavana vivek patole PhD, Elphinstone college mumbai-32	S. KANNAN Ph.D , Annamalai University
	Awadhesh Kumar Shirotriya Secretary, Play India Play (Trust), Meerut (U.P.)	Kanwar Dinesh Singh Dept. English, Government Postgraduate College , solan

More.....



ICT SKILLS FOR ENGINEERING COLLEGE LIBRARIANS IN CHITTOOR DISTRICT, ANDHRA PRADESH: A STUDY

Dr. E. Balaji Prasada Rao

Library Assistant, Sree Vidyanikethan Engineering College (Autonomous),
Tirupati, Chittoor Dist. Andhra Pradesh.

ABSTRACT: -

Now a days Library and Information professionals need to gain knowledge and skills in Information and Communication Technology (ICT). The services of ICT in libraries are now centering on information technology, especially in educational institutions. In the recent decades, application of ICT is gradually increased in academic environment in India, more particularly in Andhra Pradesh. The main purpose of this study is to assess whether the development in ICT have any influence on library professional development, also assess whether it is needed for further education and training in the profession and evaluate their skills in handling developments in ICT. This paper examines the ICT skills among librarians in engineering colleges in Chittoor District. The analyses of the data represent the extent and the level of ICT skills possessed by the librarians of these institutions.

KEYWORDS: Information and Communication Technology (ICT), Meta data, RFID, Database, SOUL, OPAC, Automation, Infrastructure.

INTRODUCTION

Information and communications technology is an extended term for information technology (IT) which 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 access, store, transmit, and manipulate information.

The aim of this study is to evaluate the Information and Communication Technology (ICT) competence, management competencies and training need analysis of



library and information professionals working in the engineering college libraries. Due to advanced development in digital technology, libraries also emerged as digital library, virtual library etc. Every system, to work effectively, needs qualified, competitive, expert and experienced staff community. Especially in the libraries, there is a huge demand for competitive professionals to serve user community effectively and efficiently. Here the system is referred as engineering college libraries.

Earlier a user come to the library only to get a document or information but today latest information reaches the doorstep of each user. Electronic resources, database and web resources play a vital role in

transforming the conventional resources to digital means in libraries supporting higher education. Web publishing has now become a major route for transmitting knowledge. Libraries are facing new challenges, new competitions, and new demands for variety of services with latest up-to-date technologies.

Now a days libraries need to play a major role in satisfying informational, instructional and personal needs of their clientele. During the last half-century, computers and telecommunications began to converge to produce so called Information and Communication Technology (ICT). A drastic change can be seen in library systems throughout the world due to ICT. In priority order, the barriers in the application of ICT in libraries are identified as technological, managerial, infrastructure, human, and political and social. Points are suggested to overcome these barriers.

Information and Communication Technology (ICT) has provided libraries with new opportunities to improve their resources and services. This paper examines the ICT skills among librarians in engineering colleges in Chittoor District. The analysis of the data represents that the extent and the level of ICT skills possessed by the librarians of these Engineering Colleges.

LITERATURE REVIEW:

Review of the literature shows a few studies on skills of the library professionals past published. The review of literature has been focused on the topics including knowledge of ICT tools, ICT based library resources and services, ICT training methods, preferred search engines and search techniques, and problems in use and application of ICT based library sources and services in the libraries.

Vasudevan and Rakhi (2015) made a study on the use, awareness, purpose of use, frequency of use, reason for using e-resources, satisfaction level, and problems facing while accessing e-resources by the doctoral students in Calicut University campus.

Singh, Krishna, and Jaiswal (2014) have undertaken a study to examine the use of Information and Communication Technology (ICT) based resources and services and their impact on users. The study also determines the satisfaction level of users regarding online services, favorite search engines, and problems faced by the users in using the ICT in libraries. Users proposed a variety of measures of formal orientation and training in ICT based resources and services to become more effective users.

Nebeolise (2013) examined the impact of information and communication Technology (ICT) on library services delivery in NOUN library. The study shows that inadequate ICT skilled professional librarians, inadequate provision of ICT training programmes, inadequate power supply and inadequate ICT infrastructures hinder the effective use of ICTs in NOUN library. The author recommends that there should be massive injection of funds and financial assistance from both the Nigerian government and some international donor agencies for the provision of ICT infrastructural facilities, training and retraining of librarians to enable them meet the standard of technology age for effective library services.

Abdelrahman (2009) has examined the current status of ICT at the University of Khartoum Library System. It was found lack of ICT skilled and technical expertise among library staff. It is further found that the training programmes available for the library staff in ICT were inadequate. The training programme is also lacking ICT skills required for adopting of modern library in digital environment, such as networking and surfing the Internet. Appropriate training programmes should be designed to improve ICT skills of the library staff. The authorities of the university should allocate more funds for the development of ICT infrastructure in the library.

OBJECTIVES:

The objectives of this study are to:

1. Analysis the knowledge of ICT of Librarians in Engineering Institutions in Chittoor District of Andhra Pradesh.
2. Classify the Librarians by Age, Sex, Qualification and experience depending on the types of Institutions they serve.
3. Find out Librarians skills in Operating Systems, use of application software packages, programming languages, Technical Skills, Managerial Skills and other ICT related activities.
4. To study the problems faced by librarians in the effective use of ICT.

The study covers the attempts of the Engineering Educational Institutions established up to July 2016 only the librarians of the respective institutions.

METHODOLOGY:

There are 37 Engineering Colleges in Chittoor District. As it is difficult to get data from the all Engineering College librarians in Chittoor District. In order to collect the comprehensive and relevant data from the Librarians of the Twenty Four Engineering colleges in Chittoor District were sampled for stratified random sampling method was used for the study. Survey Method of research has been adopted for the study. Questionnaire and interview method was also adopted as the tool for collection of data. The questionnaire was formulated keeping in view, the objectives and various facets of the study and the questionnaires were personally distributed and collected with constant personal pursuance and the data obtained from the filled in questionnaires, later classified, analyzed, tabulated and logically interpreted.

DATA ANALYSIS:

Table-1
Background Information about the Librarians

Particulars	No. of Respondents	Percentage
Gender		
Male	18	75.00%
Female	06	25.00%
Age Group		
20-30 Years	06	25.00%
31-40 Years	12	50.00%
41-50 Years	04	16.66%
Above 51 Years	02	08.33%
Professional Qualifications		
MLISc/MLib	12	50.00%
M.Phil in LIS	03	12.50%
Ph.D in LIS	09	37.50%
Experience		
Up to 5 Years	05	20.83%
6 to 10 Years	08	33.33%
11 to 15 Years	07	29.16%
Above 16 Years	04	16.66%

Age and Gender-wise distribution of respondents: Table 1 shows that half of the librarians in the age group between 31 to 40 years (50.00%). Only (8.33%) of the librarians are above 51 years of age. The (25.00%) are 20 to 30 years of age. And (16.66%) are 41 to 50 years of age.

Gender-wise analysis showed that the majority of the librarians are males (75.00%) and (25.00%) are females.

Professional Qualification and Experience of respondents: Table 1 also presents that the professional qualifications of the respondents under survey. It is interesting to note that all librarians are qualified with a master degree in MLISc and mostly (50.00%), possess M.Phil degree (12.50%) and 9 with Ph.D degree (37.50%) in Library Science. One third of the librarians (33.33%) are 6 to 10 years of experience. It is observed that the greater the number of librarians, smaller the duration of the service.

Table-2
Awareness of ICT based Applications

Technology	Excellent	Very Good	Good	Average	Poor	Total
Operating System Windows	5 (20.83%)	6 (25.00%)	8 (33.33%)	3 (12.50%)	2 (8.33%)	24 (100%)
MS Office	6 (25.00%)	8 (33.33%)	6 (25.00%)	3 (12.50%)	1 (4.16%)	24 (100%)
Linux	3 (12.50%)	5 (20.83%)	7 (29.16%)	5 (20.83%)	4 (16.66%)	24 (100%)
Web page Design	4 (16.66%)	5 (20.83%)	7 (29.16%)	5 (20.83%)	3 (12.50%)	24 (100%)
Create metadata	3 (12.50%)	4 (16.66%)	8 (33.33%)	6 (25.00%)	3 (12.50%)	24 (100%)
Installation and Customization Software	4 (16.66%)	6 (25.00%)	4 (16.66%)	8 (33.33%)	2 (8.33%)	24 (100%)
RFID Technology	2 (8.33%)	3 (12.50%)	9 (37.50%)	7 (29.16%)	3 (12.50%)	24 (100%)
Barcode Technology	6 (25.00%)	6 (25.00%)	5 (20.83%)	6 (25.00%)	1 (4.16%)	24 (100%)
Database Management Systems	5 (20.83%)	7 (29.16%)	4 (16.66%)	5 (20.83%)	3 (12.50%)	24 (100%)
Photoshop	4 (16.66%)	5 (20.83%)	7 (29.16%)	6 (25.00%)	2 (8.33%)	24 (100%)

Awareness of ICT based Applications: Table 2 shows that the respondents' level of knowledge in ICT based application. It is found from the table the respondents relatively possess ranking rate at 'Very Good' awareness in MS Office (33.33%), Database Management Systems (29.16%), Barcode Technology (25.00%), and average in Installation Customization Software (33.33%). 'Good' level of awareness in using windows (33.33%), followed by Linux (29.16%), Web page design (29.16%), Create metadata (33.33%), RFID Technology (37.50%) and Photoshop (29.16%).

Table-3
Awareness of Library Automation Software

Library Software	Awareness	Percentage	Not Awareness	Percentage	Total
SOUL	16	66.67	8	33.33	24
NEWGENLIB	14	58.33	10	41.67	24
CDS/ISIS	5	20.83	19	79.17	24
LIBSYS	12	50.00	12	50.00	24
KOHA	18	75.00	6	25.00	24
LIBSOFT	5	20.83	19	79.17	24
EVERGREEN	0	0.00	24	100.00	24
AUTOLIB	5	20.83	19	79.17	24
DOLPHIN	3	12.50	21	87.50	24

Awareness of Library Automation Software: It is clear from the table 3 that the awareness of library automation

software among the librarians to familiar more with KOHA (75.00%), SOUL (66.67%), NEWGENLIB (58.33%), LIBSYS (50.00%), CDS/ISIS, LIBSOFT and AUTOLIB (20.83%), DOLPHIN (12.50%) and no persons are not aware of EVERGREEN software package.

Table-4
Skills for managing ICT based library services

Technology	Excellent	Very Good	Good	Average	Poor	Total
Electronic document delivery system	8 (33.33%)	4 (16.66%)	7 (29.16%)	3 (12.50%)	2 (8.33%)	24 (100%)
Online indexing and abstracting services	2 (8.33%)	3 (12.50%)	6 (25.00%)	8 (33.33%)	5 (20.83%)	24 (100%)
Digital reference services	14 (58.33%)	4 (16.66%)	4 (16.66%)	2 (8.33%)	0 (0.0%)	24 (100%)
Inter library loan through networking	2 (8.33%)	4 (16.66%)	5 (20.83%)	7 (29.16%)	6 (25.00%)	24 (100%)
Online bibliographic service	4 (16.66%)	5 (20.83%)	6 (25.00%)	7 (29.16%)	2 (8.33%)	24 (100%)
Development of institutional repository	3 (12.50%)	4 (16.66%)	5 (20.83%)	8 (33.33%)	4 (16.66%)	24 (100%)
Current awareness services	14 (58.33%)	5 (20.83%)	2 (8.33%)	2 (8.33%)	1 (4.16%)	24 (100%)
SDI services	3 (12.50%)	5 (20.83%)	6 (25.00%)	7 (29.16%)	3 (12.50%)	24 (100%)

Skills for managing ICT based library services: It is evident from the table 4 that the result of analysis of librarian's skills for managing various ICT related library services. Digital Reference service and current awareness service 'Excellent' in respondents (58.33%). A consistent percentage (33.33%) of professionals has above average skills only for Electronic documents delivery systems. Below average skills are shown for Inter Library Loan through networking (29.16%), Online indexing and abstracting services and Development of Institutional repository average respondents (33.33%), and also have a significant average level of skills in online bibliographic service and SDI services (29.16%).

Table-5
Skills for managing electronic resources

Technology	Excellent	Very Good	Good	Average	Poor	Total
Use of OPAC / Web OPAC	8 (33.33%)	6 (25.00%)	3 (12.50%)	5 (20.83%)	2 (8.33%)	24 (100%)
Library website	4 (16.66%)	5 (20.83%)	8 (33.33%)	6 (25.00%)	1 (4.16%)	24 (100%)
E-books	4 (16.66%)	5 (20.83%)	6 (25.00%)	6 (25.00%)	3 (12.50%)	24 (100%)
Online journals	12 (50.00%)	7 (29.16%)	4 (16.66%)	1 (4.16%)	0 (0.00%)	24 (100%)
Online databases	5 (20.83%)	6 (25.00%)	5 (20.83%)	5 (20.83%)	3 (12.50%)	24 (100%)
Digital archives / Subject gateways	4 (16.66%)	5 (20.83%)	6 (25.00%)	7 (29.16%)	2 (8.33%)	24 (100%)
Open Access Journals	15 (62.50%)	6 (25.00%)	2 (8.33%)	1 (4.16%)	0 (0.00%)	24 (100%)

Skills for managing electronic resources: Table 5 presents that the respondents skill of managing e-resources. From the table it is evident that the respondents possess a higher level of skills in the use of e-resources. The analysis of data shows that the librarians are 'excellent' in the use of Open access journals (62.50%) followed by Online Journals (50.00%) and OPAC / Web OPAC (33.33%). And also 'Very Good' in online database (25.00%), 'Good' respondents in library websites (33.33%) and 'Average' Digital archives/subject gateways (29.16%).

Table-6
Problems faced in the effective utilization of ICT applications

Problems	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Inadequate training in ICT applications	8 (33.33%)	9 (37.50%)	3 (12.50%)	3 (12.50%)	1 (4.16%)	24 (100%)
Lack of infrastructure	9 (37.50%)	10 (41.66%)	2 (8.33%)	2 (8.33%)	1 (4.16%)	24 (100%)
No support from administration in training library professionals	5 (20.83%)	8 (33.33%)	4 (16.66%)	5 (20.83%)	2 (8.33%)	24 (100%)
Lack of support from authorities for implementing ICT applications in library	7 (29.16%)	7 (29.16%)	3 (12.50%)	4 (16.66%)	3 (12.50%)	24 (100%)
Lack of co-ordination among library staff	6 (25.00%)	9 (37.50%)	3 (12.50%)	5 (20.83%)	1 (4.16%)	24 (100%)
No initiative from professional associations to conduct specialized training programmes	5 (20.83%)	7 (29.16%)	5 (20.83%)	4 (16.66%)	3 (12.50%)	24 (100%)
Lack of scope for Library professionals due to ICT applications	6 (25.00%)	9 (37.50%)	2 (8.33%)	6 (25.00%)	1 (4.16%)	24 (100%)
Lack of interest on the part of users	6 (25.00%)	8 (33.33%)	4 (16.66%)	4 (16.66%)	2 (8.33%)	24 (100%)
Fear of ICT applications	4 (16.66%)	6 (25.00%)	3 (12.50%)	8 (33.33%)	3 (12.50%)	24 (100%)

Problems faced in the effective utilization of ICT applications: Table 6 shows that librarians have to the problems faced in the effective utilization of ICT applications in libraries. Majority of the librarians agreed that lack of infrastructure (41.66%), Inadequate training in ICT applications, Lack of scope for Library professionals due to ICT applications and Lack of co-ordination among library staff (37.50%), and no support from administration in training library professionals and Lack of interest on the part of users as agree (33.33%), No initiative from professional associations to conduct specialized training programmes (29.16%) and Fear of ICT applications in disagree (33.33%).

MAJOR FINDINGS OF THE STUDY:

- Majority of the Librarians (75%) are Male staff.
- Half of the Librarians (50%) are having only M.L.I.Sc Qualification.
- One third of the Librarians (33.33%) are having 6 to 10 years of experience.
- Awareness if ICT based applications 'Very Good' level in MS Office (33.33%), Database Management Systems (29.16%), Barcode Technology (25.00%).

- Majority of the librarians Awareness of Library Automation Software are KOHA (75.00%) and SOUL (66.67%).
- Majority of the librarians are skills for managing various ICT related library services in 'Excellent' Digital Reference service and current awareness service (58.33%).
- Majority of the librarians are 'excellent' in the use of Open access journals (62.50%).
- A high percentage of the librarians replied that Problems faced in the effective utilization of ICT applications to lack of infrastructure (41.66%) and Inadequate training in ICT applications (37.50%).

SUGGESTIONS AND RECOMMENDATIONS

More percentage of the librarians are not aware of ICT based Sources. In order to improve the knowledge and skills in accessing ICT based resources, it is suggested that the authorities of the respective management should take necessary steps to create awareness about the availability of E-resources and provide training in accessing them.

Frequent training programmes should be conducted among the library professionals to enhance their abilities, skills in searching, and assisting the users in provision of ICT based library services.

Now a days adequate ICT Infrastructure is necessary in libraries to provide better service to the users. Hence, the management authorities should take immediate measures to provide ICT facilities including computers, Internet connectivity and e-resources to meet the information requirements of the library users.

CONCLUSION:

It is found that lack of skilled staff and lack of training are the main constraints for not automating library activities. The library professionals have a positive attitude towards the use of ICT, and majority of the LIS professionals need proper training to make use of ICT in the libraries. These skills are not only limited to having knowledge of Information and Communication Technology application but also related to understand how these can be utilized with a proper blending of traditional library skill for providing information with a single click to fulfill the fourth law of Ranganathan, states "save the time of the user". However today, the changing perceptions of the users and the technological advancements have forced the academic engineering college libraries to introduce new services based on user interest.

REFERENCES:

- Abdelrahman, O. H. (2009). The State of ICT implementation and training at the University of Khartoum Library System (UKLIS). Paper presented at International conference on academic libraries (ICAL 2009), New Delhi. Retrieved from http://crl.du.ac.in/ical09/papers/index_files/ical-12_63_164_1_RV.pdf
- Adeyoyin, S.O. (2005). Information and communication technology (ICT) literacy among the staff of Nigerian university libraries. *Library Review*, 54 (4), 257-266.
- Balaji Prasada Rao, E. & Surendra Babu, K (2016). A Survey on the Users of Public Libraries in Chittoor District, Andhra Pradesh. *E-Library Science Research Journal*, 5 (1).
- Kumar, K. (2013). Knowledge on ICT skills among LIS professionals of engineering institutions of Andhra Pradesh State: a survey, *DESIDOC Journal of Library & Information Technology*, 33(6), 480-487.
- Nath, A., Gautam, B., & Praveen, K. (2007). Information and communication technology knowledge and skills of librarians in the Chandigarh city libraries. *International Caliber-2007: Information and Knowledge Management in a networked world.* (pp.713-726). Chandigarh: Inlibnet Centre.
- Nebeolise, Lucy Ndidiamaka. (2013). The Impact of information and communication technology (ICT) compliant librarians on library services delivery in academic library: The case of National Open University Of Nigeria (Noun) Library. *The International Journal of Engineering and Science*, 2(8), 37-43. Retrieved from <http://www.theijes.com>
- Satapthy, S. K. and Maharana, R. K. (2012). ICT skills of LIS professionals in engineering institutions of Orissa, India: A case study, *Library Philosophy and Practice*, available at [http:// digitalcommons.unl.edu/libphilprac/627](http://digitalcommons.unl.edu/libphilprac/627).
- Singh, Archana., Krishna, K. M., & Jaiswal, Shikha. (2014). Use of ICT based library resources and services and its

impact on users: A case study of University of Allahabad. SRELS Journal of Information Management, 51(2), 93-98.

Vasudevan, T. M., & Rakhi, N. R. (2015). Use of electronic information resources by the doctoral students of Calicut University. SRELS Journal of Information Management, 52(3), 205-212.

Wijayasundara, Nayana. (2005). ICT in libraries: A Sri Lankan perspective. SRELS Journal of Information Management, 42(2), 139-154.



Dr. E. Balaji Prasada Rao

Library Assistant, Sree Vidyanikethan Engineering College (Autonomous),
Tirupati, Chittoor Dist. Andhra Pradesh.

Publish Research Article

International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Books Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- ★ Directory Of Research Journal Indexing
- ★ International Scientific Journal Consortium Scientific
- ★ OPEN J-GATE

Associated and Indexed, USA

- DOAJ
- EBSCO
- Crossref DOI
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database

Review Of Research Journal
258/34 Raviwar Peth Solapur-
413005, Maharashtra
Contact-9595359435

E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com