
WEB BASED LIBRARY SERVICES IN P.K. KELKAR LIBRARY OF INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Dr. Sonal Singh*¹, Richa Sharma*²

*¹Head of department, Library & Information science, Vikram university, Ujjain(M.P)

*²Master in library and information science from IGNOU.

ABSTRACT

Web is a such type of virtual world that is connected people globally. Behind the developing web, Tim berners lee had the concept to develop a global information space that does not have physical boundaries. Actually this is a massive network that not only connect people of similiar ideologies along with fulfilling their requirement in remotely but also promote all these things that enhance the nation's economy for example commerce, education , health ,employment etl. Web is also helpful in bridging the digital divide by providing services to remote locations. The biggest impact of the invention of web can be seen on the information industries. Now these information agencies are broadcasting information in electronic and virtual way, print media is now being replaced by electronic media. Whenever information industries are discussed, we can not ignore the libraries because the library is the oldest information centre, without the library the organization is incomplete due to consider library as information centre of that organization. The web has also made a surprising impact on the library services, which we discuss in this paper. We have taken the P.K. Kelkar library of Indian institute of Technology Kanpur to conduct our study for knowing that which kinds of web based services are being delivered to patrons to fulfill their requirements.

Keywords: Digital divide, Information agencies, Web, Economic growth & Development.

I. INTRODUCTION

Library is crucial part of education be it vocational or technical. Technical education stands for making employment and development of nation. Since technology education is backbone of economy that is enhance nation's development. It promote both economic growth and development. Library works as a information centre of any institute or organization. Library are in 21st century where users are demanding information in digital and virtual form so that they can utilize their time in other works. Therefore now a days it is very important for libraries to be equipped with modern technologies and this is the demand of time. If we envision the society without modern technologies, then we will get back 100 years, even more than that. The changing nature of libraries follows the 5th law laid down by Dr. Rangathan. So it's very necessary that the library should disseminate the services according to the demand of users because of being society oriented, the first aim of libraries are to satisfy their users.

About Kanpur

Kanpur or cawnpore is a city in Uttar Pradesh in India. Founded in 1803, one of the most commercial and military station of British India, situates on bank of Ganges river . Kanpur is considered as manchester of north India. Kanpur is also remembered for the 1857 revolt that was led by Nana Saheb the adopted son of Peshwa Baji Rao IInd. Kanpur is also known as education hub.

About IIT Kanpur

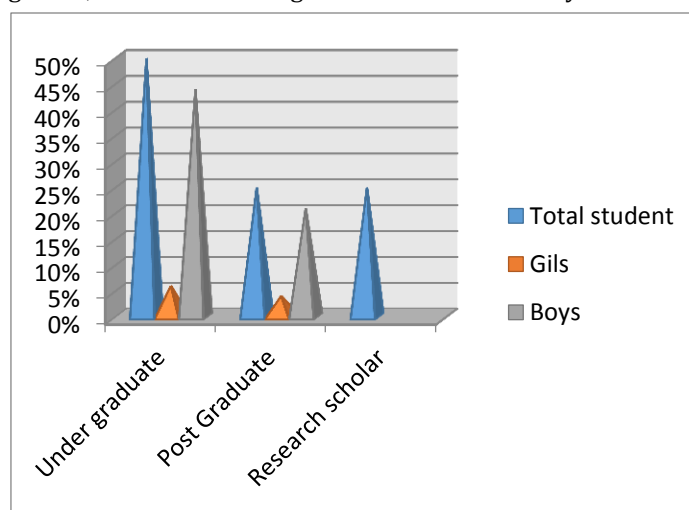
IIT kanpur is the one of the top tier institute of National Importance that was established in 1959 by govt of India under the act " Indian Institute of Technology 1956" with the aims to provide meaningful learning and teaching and for conducting genuine research of the highest standard and for coming up with technology innovation for the economic and industrial enhancement of the nation. That was IIT kanpur , the first institute in india to proffer computer science education under the guidance of economist John kenneth galbraith. "Techkriti" is the Institute's annual technical festival, started since 1995 that is Asia's largest technical and entrepreneurial fest. The website of this institute available in Hindi as well as English.

Ranking provided by NIRF

Year	Ranking	Score
2021	4th	83.22
2020	4th	82.18
2019	5th	77.57

These ranking has been provided by National Institutional Ranking Framework (NIRF) to IIT kanpur among the Engineering field.

According to NIRF ranking 2021, total actual strength of institute offered by institute.



World wide web

World wide web a gobal massive network which promote digital literacy among people. There are various generations of web have come into existence these are web 1.0, 2.0, 3.0 respectively. Now this virtual world is moving towards 4.0 generation that have automated machine intellegency based features.

Web 1.0	Web 2.0	Web 3.0
1996-2004	2004-2006	2016+
Static web	Dynamic web	Portable & Personal
Read only	Read & Write	Executive web
Uni directional	Bi directional	Multiuser environment
Broadcast	Interative	Engage
Organizational	Community	Individual
Web forms	Web applications	Smart application
HTML	JAVA/XML	RDF/RDFS/OWL
Directories	Tagging	User behaviour
Homepage	Wikis/Blogs	Lifestreams
Britannica online	Wikipedia	Semantic web

P.K. Kelkar Library

Dr. Purushottam kashinath kelkar after whom the central library was renamed in 2002, was an indian scientist. His success as the director of not only IIT kanpur but also IIT bombay made him a legend in his time in field of

technical education in india. Library is closed on national holidays but online services are accessible 24*7 hrs. P.K. Kelkar library is established for academic purpose with vast collection and deliver services in on campus as well as off campus. Open hours of the library are 358 days annually except national holidays.

Open Hours

Monday to Friday	8 Am to 12 Mid night
Saturday	9 Am to 4 Pm
Sunday and Holidays	9 Am to 5.30 Pm

Circulation Hours

Monday to Friday	9Am to 9 Pm
Saturday	9Am to 4 Pm
Sunday and Holidays	No circulation

II. OBJECTIVES OF THE STUDY

- To study the library’s framework.
- To identify the ICT and web based services.
- To study about electronic resource management.
- To provide useful recommendations.

III. LITERATURE REVIEW

Gautam,Ankur1(2021) highlighted RFID application in Indian institute of technology,Kanpur to findout how much this technique is important for library services perspective.

Hussain,Abid2(2018) focused on Role of libraries in education in his paper and also described types of libraries.

Negi,Udita3(2018) conduct the Study of libraries of IITs to explain web based resources and services in IITs library.

Kaushal lal,Mohan etl4(2017) Highlighted the Influence of ICT on electronic information resources and services in north India.

Sharma.Rajani5(2014) Focused that how databases are created in P.K.Kelkar library of IIT kanpur and also explained importance of databses among staff and users.

Nagabhushanam.V6(2012) identified Uses of web-based library services in select university libraries in india

IV. METHODOLOGY

Research methodology is a scientific way to conduct research or study through multiple systematic steps. This study is based on survey method and the data was gathered by Questionnaire with the help of google form and distributed among library staff and trainees via email and also visited the official website of the institute and some of the review literature were also undertaken in the study.

Data Analysis

Staff members in Library

Deputy Librarian	✓
Assistant Librarian	✓
Library Assistant & others	✓

This table shows that Library has Deputy librarian, Assistant librarian and library Assistant as well as other members like Information officer, Information officer assistant, Tech superintendent, Technician and Attendant.

Regular Readers of the Library

Faculty member	✓
Research scholar	✓
P.G students	✓
U.G students	✓
Others	✓

This table shows ,along with the faculty, Research scholars, UG and PG students external members are also allowed to the Library visit for multiple purpose like for reading, borrowing study materials.

Programme running in your Institute

Under graduate	✓
Post graduate	✓
Ph.D	✓
Others	✓

This table shows, along with UG,PG,Ph.D some other courses are also offered in the institute besides it institute offers studies in humanities subjects.

Selection for content study material for library

Library committee	✓
Library/In-charge	✓
Users	✓
Faculty	✓

This table shows the study materials in the library are selected in consultation with the committee, in – charge, users, and faculty as per curriculum.

Physical Facilities provided by library

ICT enabled furniture	✓
Automated book lifting	✓
ICT Based users belonging security	✓
RFID security gate	
Digital notice board	✓

This table shows that many High-Tech physical facilities are also provided to the users. RFID technology is used for multiple purpose like security, Automatically identify books,Self check-in/check out.

Information sources available in electronic form

Books/Journals	✓
Abstracting/Indexing databases	✓
Theses/Research reports	✓
Reference Documents	✓

This table shows that the library provides all above study materials and content via online as well as offline.

Do you provide any digital library software.

YES	NO
✓	-

Institute's library is offering D Space digital library software to digitize content. It's a open source software.
 Member of e - shodh sindhu consortium

YES	NO
✓	-

The library has membership of e shodh sindhu consortium.

Programs offered by Institute/Library

NPTEL	✓
ARPIT	✓
LEAP	✓

The Institute/Library also provides multiple teaching and learning programs to faculty and users for enhancing knowledge. These programs are a boon for faculties, students and working people.

Web based services provided by Library

Circulation services	✓
E Document delivery	✓
Web OPAC	✓
Display of new arrival	✓
Reference services	✓
Institutional Repository	✓
Remote Access databases	✓
Ask the Librarian	✓
Plagiarism checker	✓
Library event services	✓
RFID	✓
Virtual reality	✓

This table shows that multiple services are offered via online mode. Virtual reference service is also offered to users. There are D Space software is used for Institutional Repository.

Data bases provided by Library

J Store	✓
J Gate	✓
MathScinet	✓
SciFinder	✓
Scopus	✓
Web of Science	✓
Ebsco	✓
Proquest etl.	✓

This table shows that many databases are being provided by the library to the users which is presented in the above array. J Gate works as a e-Gate way to provide global e journals, Math Scinet database of Mathematical science and provide Peer-reviewed information, SciFinder is a database for chemistry and chemical engineering

to provide chemical literature, SCOPUS is abstract and citation database, Provide peer-reviewed literature. Web of science is a platform to provide scientific search, Ebsco provides multiple services to libraries around the world, Proquest consist of multiple databases, provides e documents like journal, newspapers, magazine and other publications.

V. FINDINGS

There are undergraduate, postgraduate and research scholars come as regular users, apart from this external member are also allowed. Attendance of employess is recorded in a biometric manner. The institute also conducts certificate courses in foreign languages in addition to UG,PG, and Ph.D courses. Library staff is well qualified and experienced. Content and study materials selection is done in consultation with library committee, library/Incharge , Users and faculties. There are various physical facilities are provided by library like ICT based user belongings, RFID security gate, Digital notice board. There are various types of e resources are provided by the library like Books/Journals, Abstracting/ Indexing databases, Theses, Research reports, Reference documents and Manuscripts. Library have the membership of e shodh sindhu consortium and iThentic and Turnitin software are provided as plagiarism detection. Some learning programe are also offered by the Institute/Library these are NPTEL, ARPIT and LEAP. Learning management software, Moodle is also provided to users and BRIHASPATI is also LMS software developed at IIT kanpur. The institute/Library also uses some trending technology like cloud computing, mobile technology, virtual reality. Cloud computing is used by library for the housekeeping operations like acquisition, circulation, CAS/SDI, Remote access content and E repository.

VI. SUGGESTION AND CONCLUSION

In National Institutional Ranking Framework 2021, IITK is ranked 4th among the top most engineering institute in India, that means the infrastructure there, the facilities provided to the students there are good but if we compare the rank 1st holder IIT madaras both the IITs are equally good in standard, infrastructure labs and academic but IIT madaras provided numerous opportunity for candidates to explore their extracurricular hobbies, where as IIT kanpur is a bit low on this. If we talk about library services, Latest technologies should be implemented in library services one of them is block chain technology, We can use this technology for digital preservation of information , giving more security to databases. Transparancy and decentralization are the important features of this technology. By usig this , we can make databases more secure and flexible among users. There are some other technologies not being used like automated book lifting and ICT enabled furniture. Due to being an institute of national importance in the field of technology, the government should provide proper funds so that the latest technologies can be brought in use besides it the government should also invest in the research so that new technologies can be created in there own country.

VII. REFERENCES

- [1] Gautam,Ankur.(2021).Implementation of RFID application in Indian institute of technology, Kanpur. International journal of library and information studies.21-28.
- [2] Kaushal lal,Mohan etl.(2017). Influence of ICT on electronic information resources and service in north India: A case study of NITS libraries.IJODLS.127-148.
- [3] Negi,Udita.(2018).Research out users with web-based resources and services:A Study of libraries of IITs.International journal of library and information studies.360-366.
- [4] Sharma.Rajani (2014). Brief overview of Data base creation in P.K.Kelakar library of IIT kanput.IJARCSMS.202-206.
- [5] <http://pkkelakar.info/> contributed by Ms. Madhura Gopinath, Daughter of Prof.Kelakar.
- [6] <https://www.nirfindia.org>
- [7] <https://iitk.ac.in>
- [8] <https://pkklib.iitk.ac.in>
- [9] <https://doortofuture.com/iit.madaras-iit-kanpur>
- [10] <https://en.m.wikipedia.org/wiki/kanpur>