

# Annual Report

April 1, 2016 to March 31, 2017



Information and Library Network Centre  
Gandhinagar

# Annual Report

(April 1, 2016 to March 31, 2017)



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Gandhinagar  
2017



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## From the Director's Desk

### Dr. Jagdish Arora Director



I am pleased to present the Annual Report of the Information and Library Network (INFLIBNET) Centre, April 1, 2016 to March 31, 2017 to the academic community in India. Successful launch of India Rankings 2016 under the National Institutional Ranking Framework by Shrimati Smriti Irani, the then Honourable Minister of Human Resource Development on 4<sup>th</sup> April 2016 at Vigyan Bhawan, New Delhi paved a new path for the Centre. The Centre was assigned the task of developing web portal for India Rankings 2016 as well as for India Rankings 2017 along with the responsibility of providing data on publications, citations and patents from Web of Science, Scopus, Indian Citation Index and Thomson Innovation for applicant institutions.

The INFLIBNET Centre kept playing a pivotal role in the process of ranking and its contributions were duly acknowledged during the launch of India Rankings 2016 as well as India Rankings 2017. Six scientists from INFLIBNET Centre were invited to witness launching of India Rankings 2017 by Honourable Shri Pranab Mukherjee, the President of India, at Rashtrapati Bhawan. The INFLIBNET and NBA signed MoUs with Clarivate Analytics and Elsevier Science for retrieval and verification of data on publications and citations for institutions that were applicant for India Rankings 2017. I would like to put on record that a team of young scientists from INFLIBNET Centre worked day and night with full dedication to make India Rankings 2016 and 2017 possible. Our experience of evolving ranking of Indian universities using bibliometric parameters (<http://www.inflibnet.ac.in/iur/>) proved useful in the process of evolving India Rankings 2016 and 2017.

The technical capabilities of the Centre, as demonstrated through projects like e-PG Pathshala, Vidya-mitra, SWAYAM, e-ShodhSindhu, etc. were duly recognized by the MHRD and a project on development of website of SWAYAM-PRABHA and its hosting including archival videos for 32 channels was assigned to the INFLIBNET Centre. SWAYAM-PRABHA is conceived as a group of 32 DTH channels completely devoted to telecasting of high-quality educational programmes on 24x7 basis using the (2) GSAT-15 transponders. Every day new content for at least four hours would be telecasted which would be repeated 6 times in a day, allowing the students to choose his / her convenient time slot. The DTH Channels would cover education material for school education, higher education and curriculum-based courses that can meet the needs of life-long learners of students in India and abroad. The project provides for creation of requisite infrastructure at the INFLIBNET Centre

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for archiving of video contents for 32 channels and providing requisite support to BISAG for its live telecasting.

The Web-based platform for SWAYAM PRABHA was developed in a record time of one week. The platform provides for uploading of programme schedule, display of current, upcoming and archival videos, searching of e-content / videos using different kinds of filters such as channel-wise and subject-wise search, using dashboard for MHRD and BISAG and admin view. The portal also facilitates viewing of archival videos that have already been telecasted on 32 channels of SWAYAM-PRABHA. The 3<sup>rd</sup> Workshop on SWAYAM-PRABHA, was conducted at BISAG, Gandhinagar on 25<sup>th</sup> January, 2017. All channel coordinators and associated staff from various institute participated in the Workshop. Scientists from INFLIBNET Centre also participated in the Workshop as developer of portal for SWAYAM-PRABHA.

Food Safety Knowledge Assimilation Network (FSKAN) was another project awarded to the Centre during the Year under report. FSKAN involves task of developing a platform to facilitate scientific co-operation by co-ordination of activities, exchange of information, development and implementation of joint projects amongst a network of organizations within the Food Authority's responsibility through FSKAN. The platform is being designed to assimilate all the information on a single platform. The portal incorporates different modules such as Expert Management System, e-Resources, Project Proposal System, discussion forum, etc.

While taking new projects and schemes, it was ensured that our existing initiatives are not neglected. Shodhganga: a repository of full-text theses in Indian Universities has grown by leaps and bounds during the year under report. As on 31<sup>st</sup> March, 2017, 309 universities have signed MoU on Shodhganga with the INFLIBNET Centre including 28 universities who signed the MoU during the financial year under report. Total numbers of theses deposited in the repository have grown to 1,39,139. Moreover, 70 universities that are signatory to MoU with INFLIBNET Centre on Shodhganga, have received funds from UGC as per the recommendation of the INFLIBNET Centre as incentive for joining this initiative. In addition, recommendations for release of funds to 26 universities signatory of MoU with INFLIBNET Centre are awaiting release of funds from UGC. These universities can now digitize backlists of their theses, setup ETD laboratory and get access to anti-plagiarism detection software through INFLIBNET Centre.

Noteworthy developments were made under e-content projects namely, e-PG Pathshala and Vidhya-mitra. 13,076 e-text, 10,800 self-learning (video), 13,000 self-assessment and 10,000 learn more modules were developed and uploaded into e-PG Pathshala across 70 subjects. Vidya-mitra, as on 31<sup>st</sup> March, 2017, hosts more than 38,000 e-texts and 63,000 video (self-learning / e-tutorial). A mobile app has also been developed that can be download from Play Store (for Android) and Apple Store (for iphone and ipad).

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The Centre hosted National Workshop on MOOCs organized by the UGC and INFLIBNET Centre at Gandhinagar on 24<sup>th</sup> May, 2016. Principal Investigators, Paper Coordinators, Content writers of e-PG Pathshala and other stakeholders benefitted from the programme. During the Workshop, experts with in-depth experience on creation of content for MOOCs made presentations. Soon after imparting National Workshops on MOOCs, the INFLIBNET Centre committed itself to support re-purposing of e-content developed under e-PG Pathshala for MOOCs courses. As such, reviewing of e-contents developed under e-PG Pathshala and its repurposing into MOOCs format under SWAYAM project continued to be an important activity that kept us busy interacting with various stakeholders including principal investigators for various subjects, paper coordinators and content writers. The INFLIBNET Centre, as anchor institute for library and information science, took-up the task of re-purposing seven courses, namely Knowledge Society, Information Sources System and Services, Information and Communication Technology for Libraries, Management of Libraries and Information Centres & Knowledge Centres, Information Storage and Retrieval, Digital Libraries and Bibliometrics and Scientometrics, into MOOC format under the SWAYAM. 15-week certificate course on “Digital Library” was offered on SWAYAM platform from November, 2016 onwards. 683 learners joined the course during its first offering.

Providing access to scholarly content through library consortia is one of the key and most prominent activity of the Centre. During the year under report, e-ShodhSindhu Consortium continued to offer differential access to more than 15,000 full-text journals from 25 publishers, 5 bibliographic databases, 2 legal databases, 4 factual databases and one standards database to 356 institutions. The College component of the consortium, called N-LIST, continued to provide access to 6,500+ journals and 30,10,000+ e-books to more than 3000 colleges under the N-LIST programme. The access to the e-resources is provided to various categories of institutes including CFTIs, central universities, 12(B) universities, national law schools and IUCs of the UGC that were earlier part of the INDEST-AICTE Consortium and UGC-Infonet Digital Library Consortium during the year 2015. The Consortium also provides access to three e-resources, namely, ASCE, ASME, IEEE-ASPP to 94 AICTE-funded institutes (including 22 Universities / department of Universities) with the funding from the AICTE.

Imparting training to manpower working in university and college libraries in the use of ICT is an important objective of the Centre. During the year under report, 45 workshops and training programmes were organized that benefitted 2,562 participants. These workshops and training programmes included one In-house Training Programme on SOUL 2.0 was organised at Manipur University, Imphal. Two INFLIBNET Regional Training Programme on Library Automation (IRTPLA) were organised at Mohanlal Sukhadia University, Udaipur and University of Calcutta, Kolkata. Seven National Workshops on Capacity Building Programme for Public Library Personnel, three of which were organized at INFLIBNET Centre and one each in Lucknow, Pondicherry, Chennai and Kalyani for the National Mission on Libraries, Ministry of Culture. Six User Awareness programmes on Shodhganga and Urkund were organized at Sri Venkateswara University, Tirupati, Central University of Rajasthan, Ajmer Sri Padmavati Mahila Visvavidyalayam (Women’s University), Tirupati, Periyar University, Salem, Central University of Kerala, Kasaragod and Assam University, Silchar to promote

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open access to theses and dissertations as well as for their qualitative improvement in terms of plagiarism-free content. A special demand-based training programme was organized on Latest Trends in Library and Information Science for LIS Teachers of North East India at INFLIBNET Centre during April, 2016. All the LIS teachers in North-East Region participated in the programme and appreciated the special efforts put in by the INFLIBNET Centre in organizing such a programme.

10<sup>th</sup> PLANNER 2016 was organized during the year under report in the North Eastern Hill University (NEHU), Shillong from 9<sup>th</sup> to 11<sup>th</sup> November 2016. The Conference was a huge success with more than 200 delegates who participated the convention including 29 publishers who took part in the exhibition organized during the Convention. The proceedings of the conference published 42 papers and 17 papers were selected for poster presentation out of 128 submissions. The Convention was inaugurated by Mr. R G Lyngdoh, Vice Chancellor, Martin Luther Christian University in the presence of Prof. Sri Krishna Srivastava, Vice-Chancellor, NEHU and other dignitaries. Prof. Jagtar Singh, Department of Library and information Science, Punjabi University, Patiala was the Keynote Speaker for the convention.

The 7<sup>th</sup> Higher Education Forum, earlier known as UGC-Infonet University Forum was organized in collaboration with Elsevier Science in New Delhi on 14<sup>th</sup> September, 2016. The agenda for 2016 Higher Education Forum was built around the objective of "Leading the way in Institutional Ranking". More than 80 participants from universities and Centrally-funded Technical Institutions (CFTIs) participated in the programme.

The INFLIBNET Centre had the pleasure of welcoming Ms. Louise Corti, Associate Director, UK Data Services, University of Essex, Colchester. She visited the INFLIBNET Centre on 6<sup>th</sup> March, 2017 to discuss the possibility of collaborative development on R-based analytical tool developed by the INFLIBNET Centre. She also delivered half-a-day workshop on "Preparing Qualitative Data for Sharing and Reuse" at the INFLIBNET Centre. 30 participants from various institutes in social sciences participated in the workshop. This was the first exposure of its kind for the participants. In addition, an International Conference in collaboration with Mizoram University, Aizawl was organized on Library and Information Services in Knowledge" Society at Mizoram on 3<sup>rd</sup> March, 2017.

I am pleased to put on records that **Shri R Subrahmanyam**, IAS, Additional Secretary (TEL) & Mission Director, NME-ICT visited the Centre during the year and spent more than four hours with the scientists and staff of the Centre. He was appreciative of the activities and services offered by the INFLIBNET Centre and made several suggestions for improvement of our services and for extending its access to wider academic community in India.

The Centre felicitated Prof. Ved Prakash for successful completion of his five years term as Chairman, UGC and for his contributions to the INFLIBNET Centre during his tenure during the 17<sup>th</sup> Meeting of the Governing Council of the INFLIBNET Centre held on Friday, 10<sup>th</sup> March, 2017 at the UGC Main Office, New Delhi. A presentation was made during the meeting on achievements and activities of the

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INFLIBNET Centre during his tenure. Prof. Ved Prakash congratulated the INFLIBNET Centre for its contributions not only to the academic community in the country but also to the UGC for automating their scholarship, fellowship, schemes and activities.

The Centre continued to maintain the websites of the UGC and Development of Grant Management System, e-Scholarship-Fellowship Award for the UGC. Interfaces for four scholarships / fellowships were developed during the year. Applications were invited and processed using these interfaces.

I am sure that the services of the Centre were delivered to the users in universities and colleges more efficiently and effectively during the year. The Centre is, however, open to receive suggestions and comments from our user community.

Date: 1<sup>st</sup> August, 2017

Place: INFLIBNET, Gandhinagar



(Jagdish Arora)





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# **PART - I**

## **Introduction, Aims & Objectives, Governing Structure and Human Resources**



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## 1. Introduction

The Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC) located at Infocity, Gandhinagar. Major activities and services of the Centre are geared towards modernization of academic libraries and information centres, to promote information transfer and access, to support scholarship, learning and academic pursuits. The Centre acts as a nodal agency for networking of libraries and information centres in universities, institutions of higher learning and R & D institutions in India. The Centre was established as an independent autonomous Inter-University Centre of the UGC in May 1996 and set out to be a major player for promoting scholarly communication among academicians and researchers across the country.

The technology being a driving force in the contemporary education system, the Centre, has taken-up a number of initiatives for the benefit of the academic community in India. These initiatives include i) IndCat, a unified online catalogue of books, theses and journals available in major university libraries in India; ii) SOUL 2.0, state-of-the-art integrated library management software; iii) e-Shodh Sindhu, for extending access to selected scholarly electronic journals and databases to eligible universities, centrally-funded technical institutions and colleges in different disciplines; iv) Shodhganga, for enabling online submission of doctoral theses and dissertations by research scholars in an open access digital repository; v) Shodhgangotri, for facilitating research scholars to submit approved synopsis of research proposals submitted to their universities; vi) Open Journals Access System (OJAS), to facilitate faculty and researchers in Indian universities to launch their open access journals on OJAS platform; vii) InfoPort: INFLIBNET's Subject Gateway for Indian Electronic Resources; viii) e-PG Pathshala, a project assigned to the UGC by NME-ICT, wherein e-content are being developed in 77 subjects at postgraduate level; ix) VIDWAN, a premier database of profiles of scientists and faculty members working in leading academic institutions and other R & D organisations involved in teaching and research in India; x) Vidya-Mitra - an Integrated e-content portal: a web-based portal, consisting of all e-content created with funding from NME-ICT, MHRD; xi) ICSSR Data Service: Social Science Data Repository, for setting up of repository and hosting of NSS and ASI datasets into the data repository; xii) National Institutional Ranking Framework (NIRF), a project assigned by MHRD for ranking institutions of higher education across the country; and xiii) SWAYAM PRABHA- an MHRD project under NME-ICT, conceived as a group of 32 DTH channels completely devoted to telecasting high-quality educational programmes.

## 2. Mission and Vision

- » Leveraging on the latest technology, create a virtual network of people and resources in academic institutions with an aim to provide effective and efficient access to knowledge through perseverance, innovation and collaboration;

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- »» Provide seamless, reliable and ubiquitous access to scholarly, peer-reviewed electronic resources to the academic community in all educational institutions with a focus on services and tools, processes and practices that support its effective use and increase value of this information;
  - »» Build and strengthen ICT infrastructure in educational institutions with value-added services;
  - »» Develop tools, techniques and procedures for secure and convenient access management enabling users to access information in electronic format from anywhere, anytime;
  - »» Develop resource selection guides and online tutorials for effective delivery and usage of e-resources; and
  - »» Facilitate creation of open access digital repositories in every educational institution for hosting educational and research content created by these institutions.

### **3. Aims and Objectives**

The objectives of the Centre, as per the Memorandum of Association (MoA), are as follows:

- a. to promote and establish communication facilities to improve capability in information transfer and access that provide support to scholarship, learning, research and academic pursuits through cooperation and involvement of concerned agencies;
- b. to establish information and library network - a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R&D institutions, etc. avoiding duplication of efforts;
  - »» to promote and implement computerization of operations and services in the libraries and information centres of the country following uniform standards;
  - »» to evolve standards and uniform guidelines in techniques, methods, procedures, computer hardware and software, services and promote their adoption in actual practice by all libraries, in order to facilitate pooling, sharing and exchange of information towards optimal use of resources and facilities;
  - »» to evolve a national network interconnecting various libraries and information centres in the country and to improve capability in information handling and services;

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- ▶▶ to provide reliable access to document collection of libraries by creating online union catalogue of serials, theses / dissertations, books, monographs and non-book materials (manuscripts, audio-visuals, computer data, multimedia, etc.) in various libraries in India;
  - ▶▶ to develop new methods and techniques for archiving of valuable information available as manuscripts and information documents in different Indian languages, in the form of digital images using high density storage media;
  - ▶▶ to optimize information resource utilization through shared cataloguing, inter-library loan service, catalogue production, collection development and thus avoiding duplication in acquisition to the extent possible;
  - ▶▶ to enable the users dispersed all over the country, irrespective of location and distance, to have access to information regarding serials, theses/dissertation, books, monographic and non-book materials by locating the sources wherever available and to obtain it through the facilities of the INFLIBNET and union catalogues of documents;
  - ▶▶ to create databases of projects, institutions, specialists, etc. for providing online information services;
  - ▶▶ to encourage co-operation among libraries, documentation centres and information centres in the country, so that the resources can be pooled for the benefit of helping the weaker resource centres by stronger ones; and
  - ▶▶ to train and develop human resources in the field of computerized library operations and networking to establish, manage and sustain INFLIBNET;
- c. to facilitate academic communication amongst scientists, engineers, social scientists, academicians, faculty, researchers and students through electronic mail, file transfer, computer/audio/video conferencing, etc;
  - d. to undertake system design and studies in the field of communications, computer networking, information handling and data management;
  - e. to establish appropriate control and monitoring system for the communication network and organize maintenance;
  - f. to collaborate with institutions, libraries, information centres and other organizations in India and abroad in the field relevant to the objectives of the Centre;



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- g. to promote R&D and develop necessary facilities and to create technical positions for realizing the objectives of the Centre;
  - h. to generate revenue by providing consultancies and information services; and
  - i. to do all other such things as may be necessary, incidental or conducive to the attainment of all or any of the above mentioned objectives.

#### **4. Physical Infrastructure**

The Centre is housed in its new institutional building constructed on land measuring 10,000 Sq. Mtrs in Infocity, Gandhinagar. It is located amidst reputed institutions such as NID, DA-IICT and NIFT. The building, consisting of Administrative, Academic and Residential Blocks, is designed by internationally acclaimed architect and renowned academician Dr. Balkrishna V Doshi of Vastu-Shilpa in consultation with other experts in the field of sustainable, eco-friendly and energy-efficient building. The building is furnished tastefully by M/s Godrej. It is partially air-conditioned and partially air-cooled following tenets of a green building. The current composition of the Building committee is given in Appendix I.

#### **5. Governance**

The Centre is governed by its Governing Board and Governing Council. The Finance Committee, a subcommittee of the Governing Board, looks after the financial aspects of the Centre. Constitution and major responsibilities of these three committees are mentioned below:

##### **5.1. Governing Council**

Governing Council (GC) is an apex body of the Centre chaired by its President, ex-officio Chairman of the UGC. The Council has seven ex-officio members and three nominated members. The members of the Governing Board are also members of the Council. As such, total number of members of the Council is twenty-one. The nominated members of the Council serve for a term of 3 years. The Director, INFLIBNET is the Member-Secretary of the Council. The Council meets once in a year. The present members of the Governing Council are listed in Appendix II.

##### **5.2. Governing Board**

Governing Board (GB) manages, administers, directs and controls the affairs of the Centre as per Rules and Bye-laws of the Centre. The Governing Board is headed by a Chairperson, who is an eminent academician in the areas of relevance to the Centre and is appointed by the President of the Council. The Governing Board has six ex-officio members and seven nominated members who are nominated by the Chairman, UGC. The Director, INFLIBNET is the Member Secretary of the Board.

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The Governing Board meets at least twice in a year. The current members of the Governing Board are listed in Appendix III.

### **5.3. Finance Committee**

The Finance Committee (FC) is a sub-committee of the Governing Board and consists of seven members. It has three ex-officio members and four nominated members. The Chairman of the Governing Board is also the Chairman of the Finance Committee. The Administrative / Accounts Officer of the Centre is the Non-member Secretary of the Committee. The Finance Committee makes recommendations to the Governing Board on i) Budget proposals of the Centre; ii) Scrutiny of the Audited Accounts and replies to the annual Audited Report; iii) Approval of sanctioned and additional positions; and iv) any other matter on which the Board seeks its recommendations. The Finance Committee meets at least once a year. The minutes of the Committee, after approval by the Governing Board are forwarded to the UGC for examination, approval and release of grants to the Centre. The members of the current Finance Committee are listed in Appendix IV.

## **6. Human Resources**

The Centre employs administrative, scientific and technical personnel for achieving its defined objectives. The technical personnel are mostly qualified in library, information and computer sciences. A list of technical, administrative and supporting staff of the Centre as on 31<sup>st</sup> March, 2017 is given in Appendix V.

## **7. Functional Group@ INFLIBNET Centre**

The scientific and technical manpower available in the Centre are clustered into the following working groups based on functional requirements of the Centre.

- Database Management and R & D Group;
- Software R & D;
- HRD;
- E-Resource Management Group;
- Open Access R & D Group;
- e-Learning and e-Content Development;
- Web Services R & D Group;
- Access Management Group; and
- Open Source Software

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Major R&D and human resource development activities are undertaken according to the requirements of the library and academic community including students, faculty and research scholars. Major scientific and technical activities undertaken of these functional group during the period under report are given in Part II of this report.

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## **Part - II**

# **Activities and Services of the INFLIBNET Centre**



## 1. Automation of University Libraries

The University Grants Commission, on recommendation of the INFLIBNET Centre, had supported 142 universities during IX Plan period and 24 universities during XI/XII Plan periods for automation of their libraries with software and training support from the INFLIBNET Centre. The total funds allocated to 24 universities for automation of their libraries during XI/XII Plan period is Rs. 195.60 lakhs including Rs. 6.50 lakhs for purchase of equipment (PCs, servers, accessories, scanner, etc.) and Rs 1.65 lakhs recurring grant for five years for each of the 24 universities. The Centre proactively helped these universities to automate their libraries. The INFLIBNET Centre signed an MoU with all the 166 universities (142 IX/X Plan Period+ 24 XII Plan Period) on library automation which provides for universities to contribute the bibliographic records of documents available in their libraries to the IndCat: Union Catalogue of the INFLIBNET Centre.

## 2. IndCat: Union Catalogue of Indian Universities (<http://indcat.inflibnet.ac.in/>)

Union Catalogue of Indian Universities (IndCat) is a by-product of the library automation of the INFLIBNET Centre where in universities that are signatory to the MoU on library automation contribute the bibliographic records of documents that are available in their libraries. The scope of the IndCat has now been extended to invite contributions from universities and other institutions who have not signed MoU with INFLIBNET Centre on library automation.



A brief description of three components of the union catalogue i.e. books, theses and serials maintained by the Centre is given below. Figure 1 depicts current interface of the IndCat.

**indCat**  
Online Union Catalogue of Indian Universities

INFLIBNET Centre  
An Inter University Centre of UGC

Home Books Serials Theses e-Video

IndCat: Online Union Catalogue of Indian Universities is unified Online Library Catalogues of books, theses and journals available in major university libraries in India. The union database contains bibliographic description, location and holdings information for books, journals and theses in all subject areas available in more than 179 university libraries across the country. A Web-based interface is designed to provide easy access to the merged catalogues. The IndCat is a major source of bibliographic information that can be used for inter-library loan, collections development as well as for copy cataloguing and retro-conversion of bibliographic records. The IndCat consists three components available in open access to users and librarians.

- **Books:** Over thirteen millions bibliographical records of books from 179 university libraries. [more details](#)  
- **Theses:** Doctoral theses submitted to various Indian universities till date. [more details](#)
- **Serials:** Currently subscribed journals by the universities and holdings information on serials available in various university libraries. [more details](#)

Database	No. of Records	No of Universities
Books	1,41,27,338	179
Theses	2,71,581	315
Serials	35,248	223

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Total number of visits: 505256

Fig. 1: Interface of IndCat: Union Catalogue of Indian Universities

## 2.1. Union Catalogue of Books

Abhishek Kumar, Scientist C (CS)

Vaishali Shah, Scientist B (LS)

Miteshkumar Pandya, Scientist B (LS)

Dharmesh Shah, STA (CS)

The Union Catalogue of Book Database covers bibliographic records of books available in the libraries of universities in India. The book database contains 83 lakhs unique records of books available in 173 universities/institutes in various disciplines. The book database contains textbooks, reference books, conference, proceedings, monographs, etc. The book database can be searched by different parameters i.e. title, author, ISBN, subject, publisher, Place, etc. Figure 2 depicts Search Interface for Books.

The screenshot shows the IndCat website interface. At the top, there's a header with the IndCat logo and the text 'Online Union Catalogue of Indian Universities'. Below this is a navigation bar with links: Home, Books, Serials, Theses, and e-Video. The 'Books' link is highlighted. On the right side of the header, there's a logo for INFLIBNET Centre, An Inter University Centre of UGC. Below the navigation bar, there's a section titled 'Participated Universities (156)' with a list of universities including Acharya Nagarjuna University, Ahmedabad University, Alagappa University, Aligarh Muslim University, Andhra University, Andhra Pradesh University of Law, Anna University, Annamalai University, Assam University, Avinashilingam Uni. for Women, B R Ambedkar Lucknow University, Baba Ghulam Shah Badshah University, and Bharathiar University. The main content area is titled 'Welcome to Online Catalogue of Books' and features a search form titled 'Search Book Database'. The form has three input fields: 'Title', 'Author', and 'Enter the Term to Search'. Below these fields are 'Search' and 'Reset' buttons. To the right of the search form, there's a link '[Search Tips]'. Above the search form, there's a banner that says 'IndCat (Book Database) has 76.31 Lakhs Unique Records of 156 Universities' and 'Latest Records Uploaded: Sri Chandrasekarendra Saraswathi Viswa Mahavidyalaya, Kanchipuram'. At the bottom of the page, there's a footer with the text 'Books database contains the records contributed by participating libraries. We have taken utmost care to filter the redundancy and tried our level best to improve the quality of the database. In spite of our best efforts, you may come across errors and find inconsistencies in the record. We are taking appropriate action for the removal of the redundancy in the database. We solicit your valuable suggestion to standardize and improve the quality of these records.'

Fig. 2: Search Interface for Books

### 2.1.1. Process for Building IndCat

Process of building IndCat commences with creation of bibliographic records in participating university libraries and their receipt at the INFLIBNET Centre. Steps involved in building of IndCat database is as follows:

**Step 1.** INFLIBNET Centre receives bibliographic records from Indian universities in different formats, such as MS-Excel, MS-Access, Dbase / Foxpro, CDS/ISIS, WIN ISIS, MS-SQL Backup, CCF, MARC, LibSys, SOUL 2.0, etc.

**Step 2.**Records received in different formats are converted into Common Communication Format (CCF) (by Tag Mapping using CDS/ISIS Software).

**Step 3.**All records go under the process of authentication, using Union Catalogue Management System (UCMS) software for editing typographical errors in various fields such as place, publisher, edition, year of publication, etc. in addition to duplicate checking and merging of these records into Indian Catalogue IndCat.

Figure 3 depicts process involved in building of IndCat.

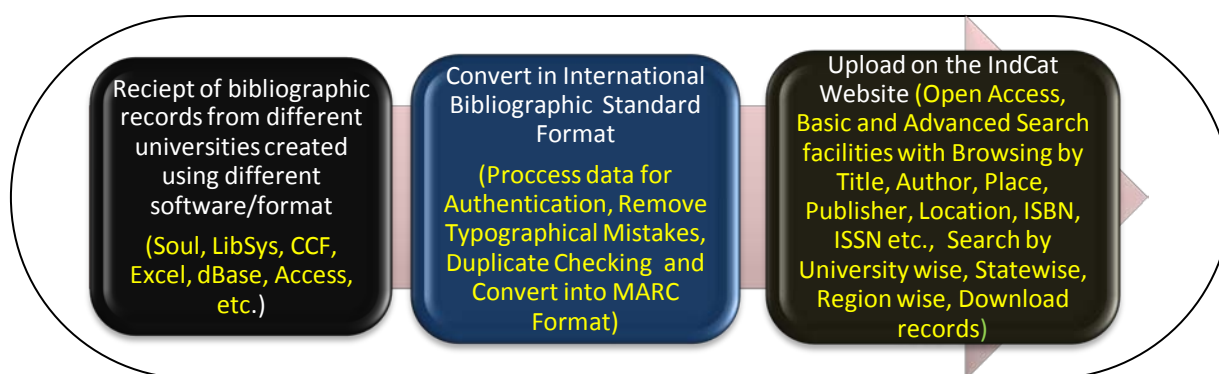


Fig. 3: Process Involved in Building IndCat

Web interface for Book Database of IndCat facilitates it users to conduct searches on title, words in title, author, subject, ISBN, location, place and publisher. The IndCat interface facilitates restricting the search to collections available within an individual university as well as for expanding the search to universities in a given state. By default, the interface searches all bibliographic records of documents available in IndCat for all the participating universities. The search results retrieved from the IndCat can be displayed in the following two formats:

- » **Brief:** By default, retrieved records are displayed in brief. A brief bibliographic record contains title, authors, place, publisher and year of publication.
- » **Descriptive:** A detailed descriptive record contains complete bibliographic details of a book including its location. It is a second-level display that appears when a user clicks at the brief record. The descriptive record also provides option for ILL request. Figure 4 depicts bibliographic details of searched records.



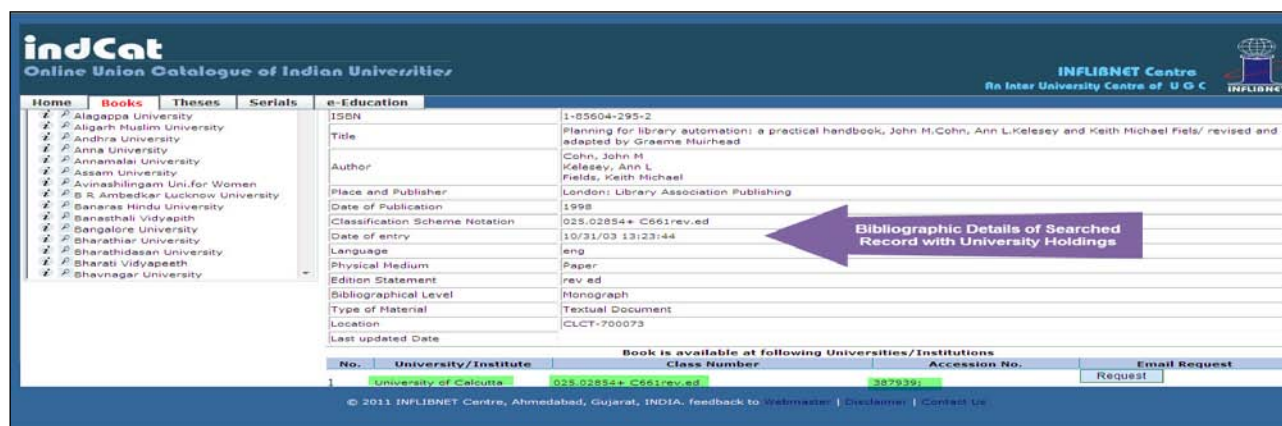


Fig. 4: Bibliographic Details of a Searched Record

## 2.1.2. Functions and Features of IndCat

### i) Restrict Search within a University / State

Searches in Union Catalogue, by default, is conducted on the entire database containing records of documents from all universities. Users can restrict their searches to the records of documents available within their own university on different search parameters like Title, Subjects, Authors, Place, Publisher, etc.

**State wise Search:** User can search the book database within a State by Title, Authors, ISBNs etc.

**Advanced Search:** Advanced search facilitates use of boolean operators i.e. AND, OR, NOT with different search parameters i.e. Title, Authors, Corporate Body, Place & Publisher, Year, Subjects, Notes, ISBN, etc.

### ii) Copy Cataloguing

The copy cataloguing feature of the IndCat facilitates downloading of bibliographic records in MARC21, CCF or ASCII format. The downloaded bibliographic records can be imported to any library management software compliant to MARC21 bibliographic format including SOUL 2.0. Effectively, librarians / cataloguers can copycatalogue bibliographic records of books instead of creating a new record which is a time-consuming and cost-intensive process.

### iii) Union Catalogue of Books: Subsets

The union catalogue of books has two subsets namely GujCat and NERCat that are separately designed on demand of the concerned regions:

- » The **GujCat**, a subset of IndCat, is unified online library catalogue of books available in major college/institute/university libraries within Gujarat state. GujCat contains bibliographic

description, location and holding information of books available in libraries in Gujarat. A separate dedicated web-based interface is designed to provide easy-access to the merged catalogues of libraries in Gujarat. GujCat is a major source of bibliographic information that can be used for inter-library loan, collection development as well as for copy cataloguing and retro-conversion of bibliographic records within Gujarat.

- The **NERCat**, an online catalogue of books in universities in North-Eastern Region, is another subset of IndCat. NERCat is designed and implemented to restrict searching of bibliographic records to university libraries in North-Eastern region, so as to promote resource sharing amongst university libraries in North-Eastern region.

### 2.1.3. Bibliographical Records for Books Added during Year 2016-2017

During the period under report, the Centre has merged bibliographic records of eleven universities in IndCat using UCMS software, as per the details given in Table 1:

Sl. No.	University Name	Received Records	*Duplicate Records	#Matched Records	+Merged Records
1	Mudra Institute of Communications Ahmedabad (MICA), Ahmedabad	11,506	222	255	11,029
2	CEPT University, Ahmedabad	21,642	375	970	20,297
3	Nirma University, Ahmedabad	55,158	2,322	660	52,176
4	Janardan Rai Nagar Rajasthan Vidyapeeth, Udaipur	852	38	330	484
5	Tripura University, Agartala	914	1	44	869
6	Dr.Y S Parmar University of Horticulture & Forestry, Solan	26,710	3,554	1,346	21,810
7	Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan	43,440	1,109	389	41,942
8	Awadhesh Pratap Singh Univeristy, Rewa	44,134	2,017	466	41,651
9	National Law School of India University, Bangalore	39,255	6,359	3,206	29,689
10	National Law Institute University, Bhopal	8,261	86	364	7,811
11	Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	71,870	49,715	78	22,077

\*Records already exist in same university i.e. multiple copies

#University's records already exist in IndCat Database, only holding information is updated

+Merged records are added to IndCat Database i.e. unique records

**Table 1: Merged Bibliographic Records of Eleven Universities in Union Database (IndCat)**

Bibliographic records of books for the following six universities were updated in the IndCat as given in Table 2:

Sl.No.	University Name	Updated Records
1	University of Kalyani, Kalyani	67,375
2	Acharya Nagarjuna University, Guntur	89,923
3	Andhra University, Visakhapatnam	1,60,195
4	Kuvempu University, Shimoga	66,932
5	Shreemati Nathibai Damodar University, Mumbai	1,09,685
6	Tripura University, Agartala	4,010
<b>Total Updated Records</b>		<b>4,98,120</b>

**Table 2: Updated Bibliographic Records of Six Universities for Union Database (IndCat)**

Table 3 given below provides holding records added to the Union Database of Books during the period under report:

Sl. No.	Details	No. of Records added During the year 2016-2017
1	Unique Records	2, 49,837
2	Holding Records	8,109

**Table 3: Bibliographic Records Authenticated and Merged in Union Database (IndCat)**

#### **2.1.4. Growth of Union Catalogue of Books**

Building and maintaining a union catalogue is an ongoing activity involving collaboration of all participating libraries. The Union Catalogue of Books is essentially an outcome of financial and logistic support that was extended to the participating universities by the Centre for creating bibliographic records of their library collections. With initial financial incentives backed-up with logistic support in terms of training on integrated library management software including SOUL, the union Catalogue of Books has witnessed a rapid growth. The union catalogue of books has grown from 6.5 lakh records in 1999 to 139 lakh records in 2017 as depicted in Table 4 and Figure 5 given below:

Year	Received Records (in lakhs)	Unique Records (in lakhs)
1999	6.5	2.7
2003	12	5.8
2007	82	30.3
2011	119	61.8
2013	127	73
2014	128	74
2015	131	75.7
2016	139	80.68
2017	139	83

Table 4: Growth in No. of Bibliographic Records in IndCat from 1999 to 2017

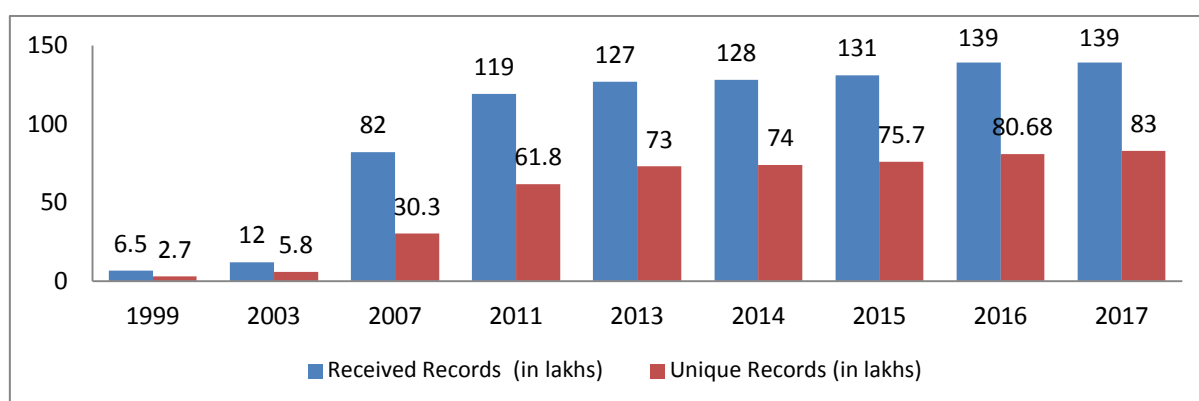


Fig. 5: Growth of Union Catalogue of Books

The union catalogue of books has bibliographic records of documents available in libraries of 178 contributing universities. Category-wise participated universities is given in Table 5 and depicted in Figure 6.

Categories-wise University List	No. of Univ.
12 (B) / 2 (f) State Universities	110
Central Universities	23
Deemed Universities (Receiving Plan Grants from UGC)	20
Centrally Funded Technological Institute	7
2 (f) State Universities	6
Deemed Universities	4
Open University	1
Private Universities	2
Others	5
<b>Total Participated Universities</b>	<b>178</b>

Table 5: Category-wise Participating Universities

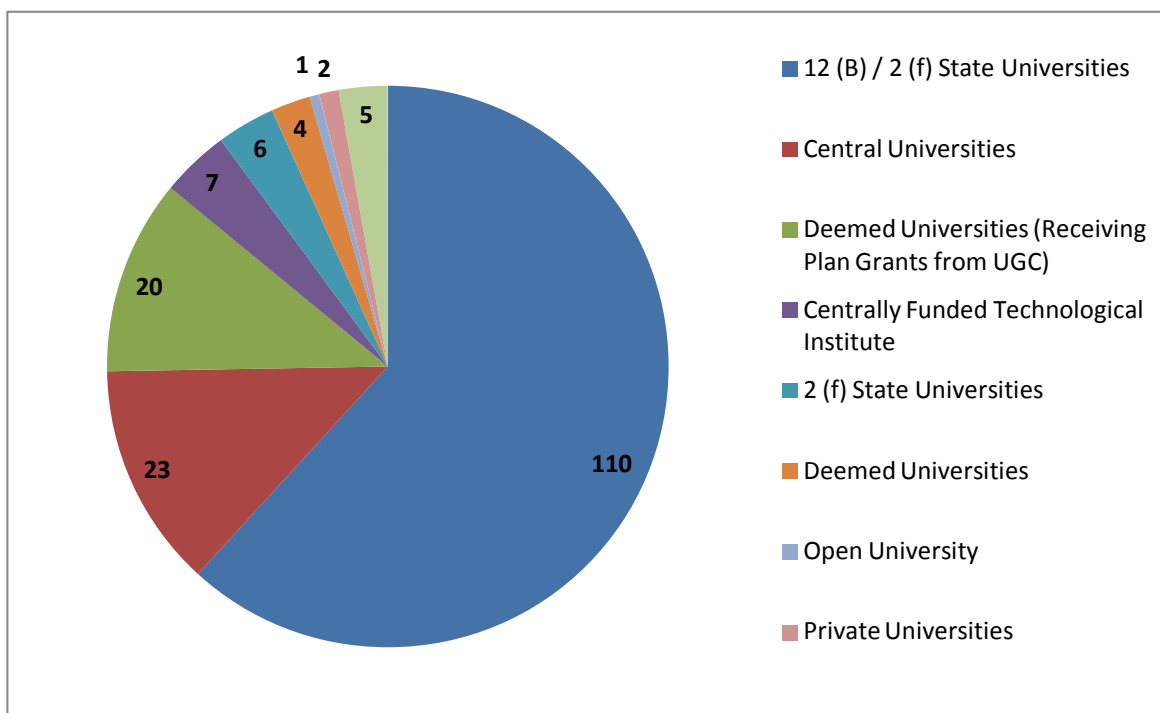


Fig. 6: Category-wise Participating University

#### 2.1.5. Online Copy-Catalogue System (OCS)

The Centre has developed application software called “**Online Copy-Catalogue System**” (OCS) to promote co-operative cataloguing and avoid duplication of efforts. The interface called “Online Copy Catalogue System (OCS)” is a window-based application that facilitates libraries to interact with the Union Catalogue of Books (IndCat) and catalogue their new acquisitions online. The OCS, on one hand, facilitates libraries to search and browse bibliographic records of documents available in IndCat and download selected records directly into SOUL 2.0 or any MARC21 compliant software. The holding information for the bibliographic record being downloaded from the IndCat gets updated automatically in the process. On the other hand, the interface facilitates creation of a new record for a document that is not available in the IndCat. This new record gets saved into local integrated LMS as well as into the IndCat simultaneously. Besides, online cataloguing and copy cataloguing, the interface also facilitates bulk uploading and downloading of bibliographic records of books. More details on OCS are available at:

[http://indcat.inflibnet.ac.in/includes/UserGuide\\_OCS.pdf](http://indcat.inflibnet.ac.in/includes/UserGuide_OCS.pdf)

#### 2.1.6. Major Works during Financial Year 2016-2017

- » Bibliographic records for 11 universities were checked, authenticated, converted and merged with IndCat;
- » 6 universities have contributed their updated bibliographic records;

- 
- » The Centre launched beta version of “Theses and Serials Databases” on a new platform to facilitate faster access and enhanced users preference including faceted search and filtered search on different parameters, i.e. university-wise, department-wise, subject-wise, publisher-wise, etc. and combination of these parameters. The Centre launched beta version of union catalogue on a new platform which includes all databases i.e. book, theses, serial and CEC’s Video records. Through this version, universities may update their records directly by login into system; and
  - » Features and functionalities of UCMS were further enhanced. Significant improvements were made in the process of merging of bibliographic data and process of exporting bibliographic records from CCF to MARC format with holding details i.e. university location, etc.

## **2.2. Union Catalogue of Serials**

Dinesh Ranjan Pradhan, Scientist B (LS)

The INFLIBNET Centre maintains union database of serials that provides bibliographic information of journals subscribed in various universities and maintains the information in three categories, namely; i) Serials Holdings; ii) Current Serials; and iii) e-journals.

i) “Serials Holdings” provides data on library holdings, i.e. back files of journals and their availability in various university libraries; ii) “Current Serials” provides titles of the serials that are currently subscribed by the universities in print format; and iii) “e-journals” that are: a) currently subscribed by the participating universities in electronic formats; b) journals subscribed under e-Shodh Sindhu in electronic format; and c) e-journals available in open access mode.

The Serials Database includes bibliographic information of serials (including journals, periodicals, annuals and serials) available in 223 universities / institute libraries along with its holdings information (includes available and missing volumes of the journals) in participating libraries. The serial database has over 35,248 unique titles with holdings information for 223 universities. Each bibliographic record for serials contains title, publisher, frequency, year of publication, homepage URL and subject headings along with holdings details and names of the universities.

## **2.3. Union Catalogue of Theses**

Abhishek Kumar, Scientist C (CS)

Miteshkumar Pandya, Scientist B (LS)

Dharmesh Shah, STA (CS)

The Union Catalogue of Theses consists of bibliographic records of doctoral theses submitted to the universities in India. The database contains 2,71,581 unique bibliographic records of the theses awarded by 315 Indian universities / institutions of higher learning in all disciplines. The bibliographic

records of theses are contributed by participating universities. Besides, records in the database have also been collected from other reliable sources such as notification from universities, University News and Records submitted by the individual researchers, etc. Figure 7 depicts web interface for Union Catalogue of Theses Database.

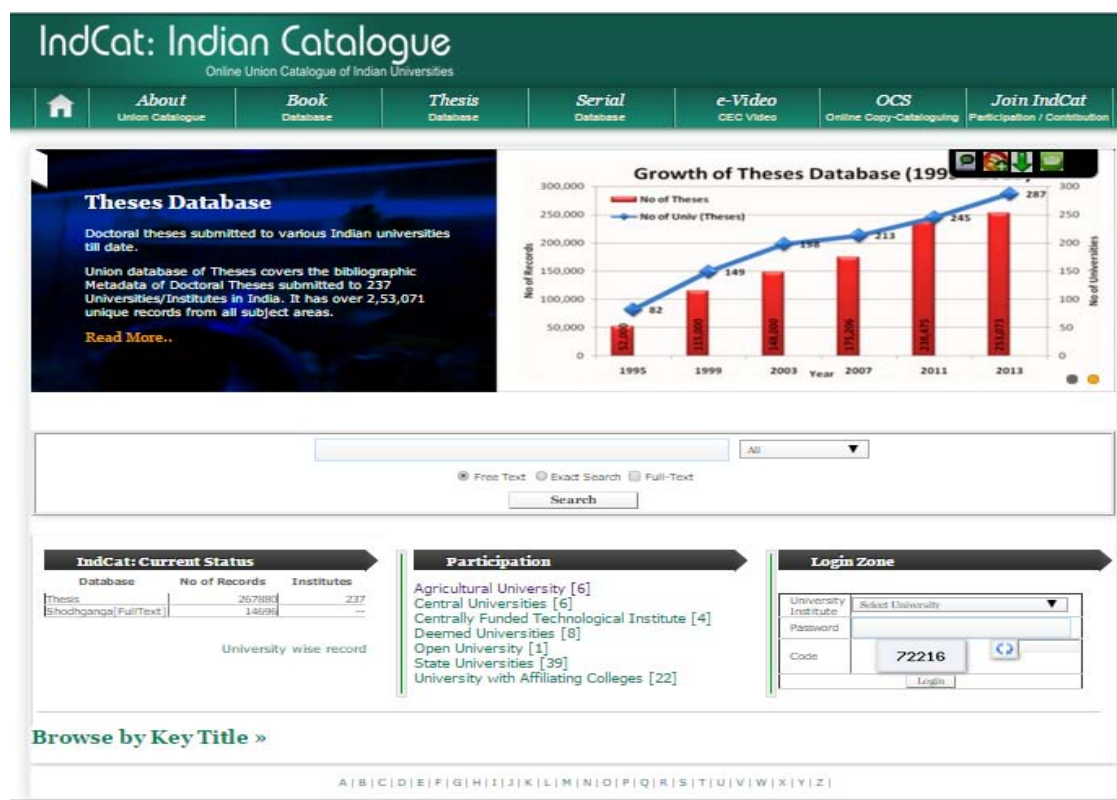


Fig. 7: Union catalogue of Thesis Database Interface

The compilation of Union Catalogue of Theses commenced in 1995 with 52,000 bibliographic records of theses from 82 universities. The database has grown to 2,71,581 records of theses as on 31<sup>st</sup> March, 2017 from 315 universities over a period of 23 years.

The Centre receives a copy of notification on award of Ph.D. theses from different universities across the country. Table 6 and Figure 8, given below depict growth of theses database from 1995 to March 2017.

Year	No. of Universities	No. of Records
1995	82	52,000
1996	95	65,000
1997	110	72,000
1998	134	90,000
1999	149	1,15,000
2000	160	1,28,000

2001	172	1,35,000
2002	189	1,42,000
2003	198	1,48,000
2004	209	1,52,000
2005	211	1,71,176
2006	213	1,75,206
2007	213	1,75,206
2008	237	2,20,206
2009	237	2,20,206
2010	237	2,37,393
2011	245	2,38,475
2012	270	2,44,927
2013	286	2,52,885
2014	298	2,64,628
2015	301	2,65,727
2016	315	2,69,195
2017	315	2,71,581

Table 6: Growth in Number of Records in Theses Database: 1995 – 2017

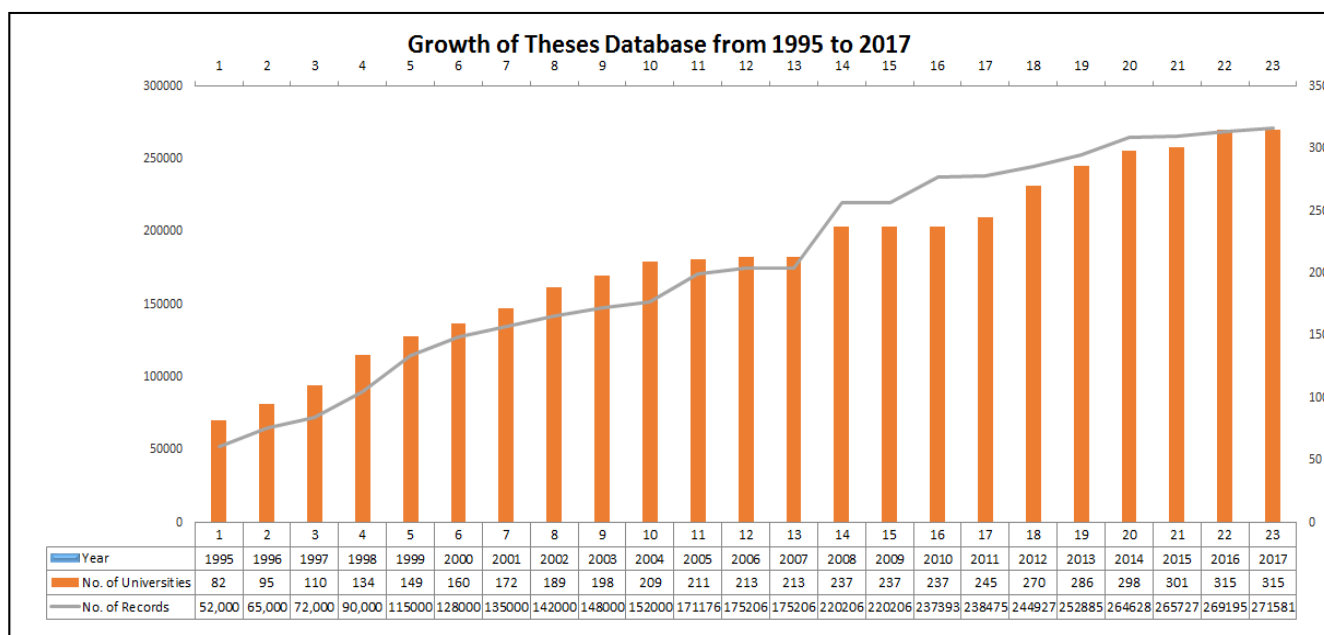


Fig. 8: Year-wise Growth of Theses Database

Theses database can be searched through IndCat interface by title, researcher, research supervisor, university, department, year of submission, keywords, etc. Bibliographic records of theses are linked to full-text records in "Shodhganga", if available. Names of universities and the number of records contributed by them to the union catalogue of theses are available at

[http://14.139.116.25:8090/thesis/pdf/appendix\\_2016-17.pdf](http://14.139.116.25:8090/thesis/pdf/appendix_2016-17.pdf)



### 3. VIDWAN: Expert Database National Researcher's Network(<http://vidwan.inflibnet.ac.in>)

Kannan P, Scientist C (LS)

Abhishek Kumar, Scientist C (CS)

Asha Vaghela, Project Associate (CS)

Dipika Makwana, Project Associate (LS)

Kalgi Gandhi, Project Assistant (LS)

VIDWAN: Expert Database and National Researcher's Network is the premier database of profiles of scientists and faculty members working in leading academic institutions and other R & D organisations in India and abroad. The database provides important information about faculty and scientist such as background information, area of expertise, publications, research activities and academic accomplishments, etc. The major objectives of this database are i) quickly provide information about experts to peers, prospective collaborators, funding agencies, policy makers and research scholars in the country; ii) to establish communication between subject experts and research scholars; iii) to identify peer reviewers for review of articles and research proposals; iv) to create information exchanges and networking opportunities among scientists; and v) to discover prospective collaborators for on-going research projects.

A new responsive and feature-rich web interface has been developed for editing and updating profile of experts. A persistent URL, username and password was issued to each expert to edit and update their profile information. A web interface for nodal officer was developed and username and password was issued to them to update the profile information from their respective institution. The Solr based faceted search interface was incorporated to search the database on various parameters such as name, designation, area of expertise, organization, organization type, state, etc. with filter to narrow down the search. The profiles of expert can also be browsed by Web of Science Subject categories and organisation categories. As on 31<sup>st</sup> March, 2017, the database contained 22,716 profiles from more than 2,640 institutions including leading academic and R&D Organisations in India and abroad. Figure 9 depicts screenshot of VIDWAN: Expert Profile with Co-author Network.



Fig. 9: VIDWAN: Expert Profile with Co-author Network

### 3.1. Progress Made During the Year 2016-2017

During the period under report, all experts were requested to update their respective profiles. Nodal officers were requested to update the profiles of their faculty for their respective institutes. About 3,056 new expert profiles were added into the database and existing profiles were updated with scholarly articles and academic identities, etc. New features such as Co-author Network, Altmetrics, Citation Count from SCOPUS were incorporated to enhance the profile display. Virtual machines with customized VIVO pre-installed was developed for distribution to the participating institutes so as to promote standard-based distributed Profile Management System. Admin interface was enhanced with feature for profile import as CSV file that enables import of data received from the Nodal Officer. Figure 10 depicts number of experts in 8 major Web of Science Subject Categories. Figure 11 depicts number experts and their organisation categories.

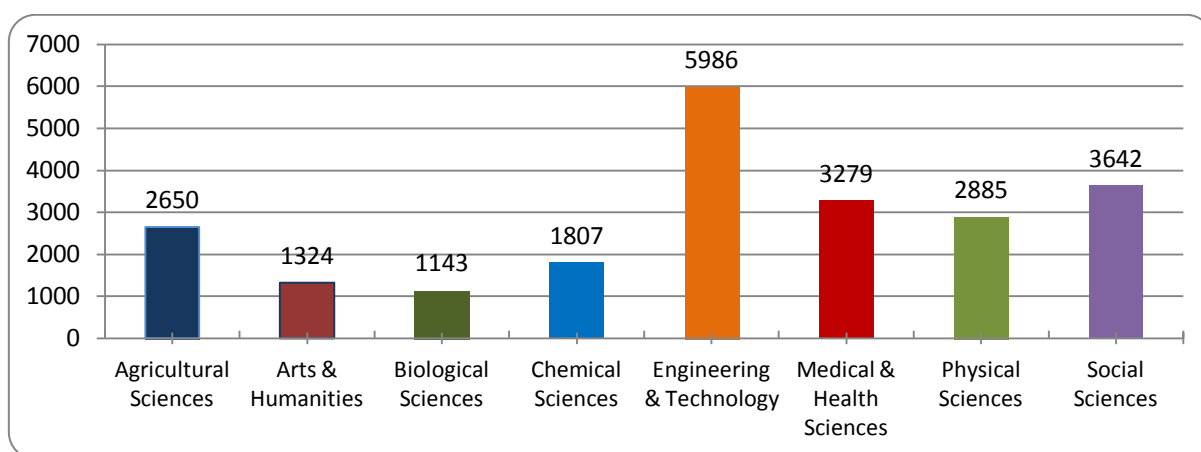


Fig. 10: Number of Experts and their Web of Science Subject Categories in VIDWAN Database

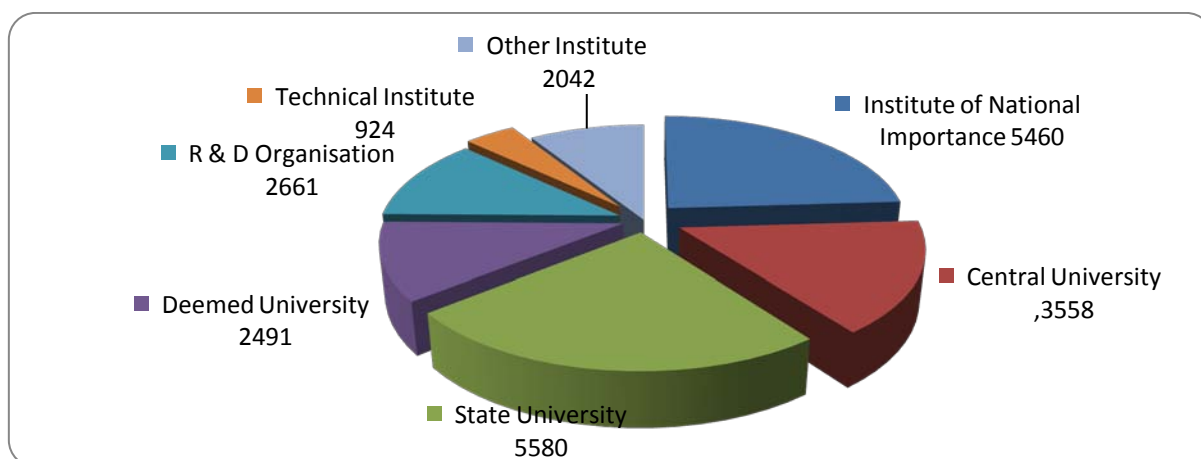


Fig. 11: Number Experts and their Organisation Categories in VIDWAN Database

### 3.2. Features of New Interface of VIDWAN

The features and functionality of the web interface of Vidwan database was enhanced to enrich the user experience and to make website accessible from different devices. The new interface supports the following features:

- a) Responsive user-friendly interface to access the site from mobile, tablet as well as desktop;
- b) Facility to import publications in a standard format (BibTeX);
- c) Import project works, honours and awards from the predefined CSV files;
- d) Import publications using academic identity such as ORCID, Microsoft Academic Search ID, Google Scholar ID, Researcher ID, Scopus ID;
- e) Data indexed using Apache Solr for fast retrieval and access;
- f) Faceted search interface with filter to narrow down the search result;
- g) Enhance the profile display with similar experts and experts from the same organization;
- h) Co-author network and map of science network to ascertain the author network and research focus area;
- i) Citation information with social media metrics (altmetrics) and citation count from SCOPUS; and
- j) Export CV from the respective profile.

### 3.3. VIVO: Semantic Interface

Kannan P, Scientist C (LS)

Asha Vaghela, Project Associate (CS)

As part of the Expert Database and Researcher's Network system, the Centre has customized the VIVO Profile Management System to organize the research related information and support the organization to develop the self-sustained profile management system. The Centre has developed the beta version of Profile Management System using customized VIVO for Indian Institute of Technology Gandhinagar as shown in Figure 12. The interface has the facility to describe the expertise using standard vocabulary such as AGROVOC, GEMET, LCSH, UMLS, etc and organize the scholarly communication data using linked data. The system generates co-author network and map of science network based on the publications. The end user can view the area of expertise of organisation or the faculty/scientists through graphical representation.

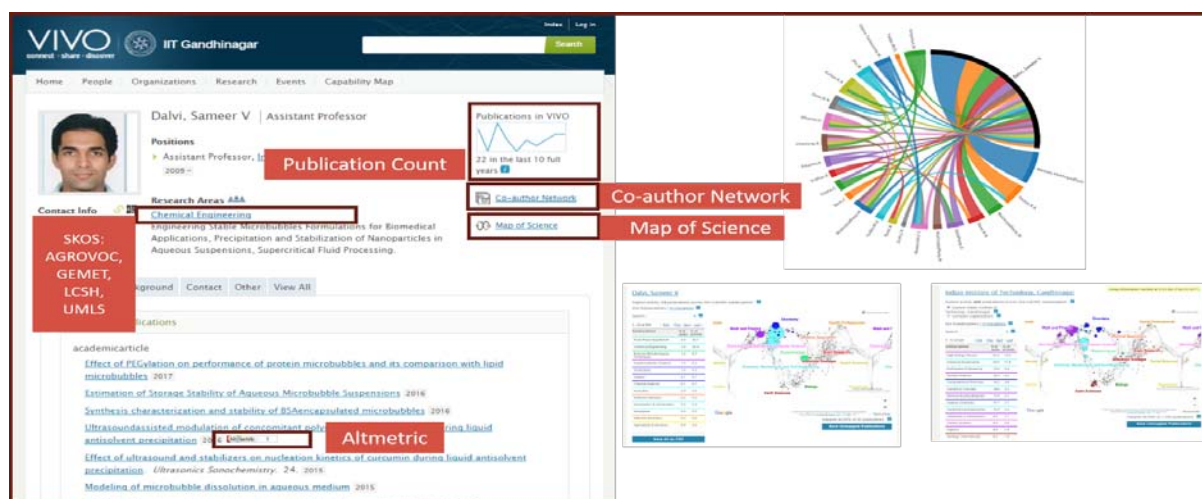


Fig. 12: VIDWAN Profile using VIVO with Map of Science Network and Co-author Network

#### 4. SOUL 2.0 (<http://www.inflibnet.ac.in/soul/>)

Yatrik Patel, Scientist D (CS)  
Divyakant Vaghela, Scientist B (CS)  
Swapnil Patel, Scientist B (CS)  
Bhargavi Kadiya, Project Officer (CS)  
Nrutik Prajapati, Project Officer (CS)

The SOUL 2.0 (Software for University Libraries) is state-of-the-art integrated library management software designed and developed by the INFLIBNET Centre based on requirements of colleges, universities and other academic libraries. It is user-friendly software developed to work under client-server environment. The software is compliant to international standards for bibliographic formats and circulation protocols. After a comprehensive study, discussions and deliberations with the senior professionals of the country, the software was designed to automate all house-keeping operations in a library. The software is suitable for the academic libraries as well as for all kinds of other libraries. SOUL 2.0 is compliant to international standards such as MARC 21 for bibliographic format, Unicode based Universal Character Sets for multilingual bibliographic records and NCIP 2.0 and SIP 2 based protocols for RFID, electronic surveillance and control.

The SOUL 2.0 was released in January 2009 and was well received by the academic libraries in India. During the year under report, several minor enhancements made in reporting and other functionalities. New updates of the software are available through the SOUL 2.0 website at no additional cost to existing users. As on 31<sup>st</sup> March, 2017, the software was supplied to 3,352 institutions across the country.

SOUL 2.0 was adopted by the Directorate of Libraries for all their public libraries as well as by the Department of Technical Education, Government of Gujarat. State Governments of Madhya Pradesh, Haryana and Andhra Pradesh have also adopted SOUL 2.0 software for automating their public and academic libraries.

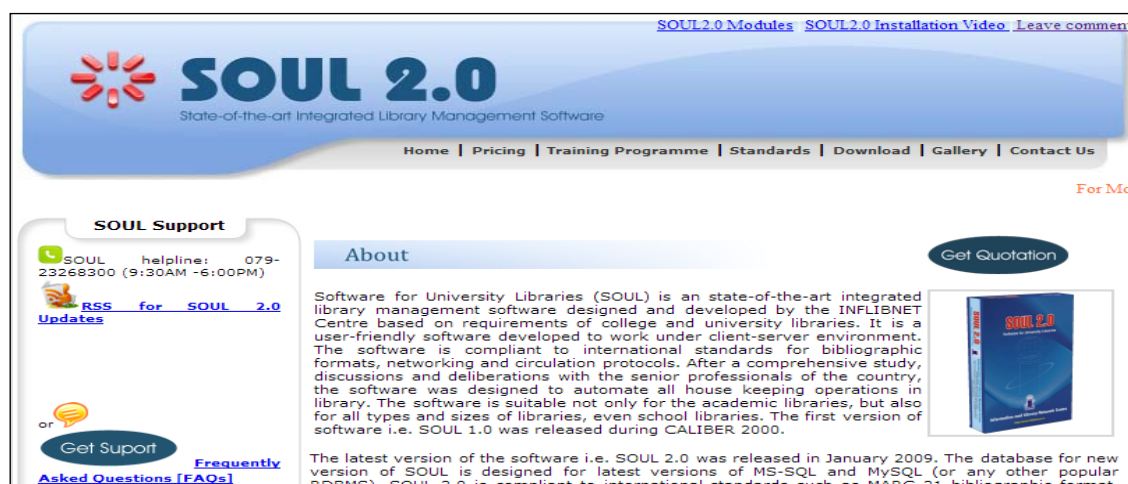


Fig. 13: Website for SOUL 2.0

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A separate website shown in Figure 13 is maintained by the Centre that provides detailed information about SOUL 2.0 along with the updates of software.

**Technologies:** Visual Studio.Net, Microsoft SQL Server 2005, Microsoft Server Platform

#### **4.1. Customization of SOUL 2.0, Data Conversion and Transfer**

Yatrik Patel, Scientist D (CS)  
Divyakant Vaghela, Scientist B (CS)  
Swapnil Patel, Scientist B (CS)  
Bhargavi Kadiya, Project Officer (CS)  
Nrutik Prajapati, Project Officer (CS)

The Centre offers customization of the SOUL 2.0 software on payment basis as per the requirement of libraries. Under this offer, SOUL 2.0 can be customized according to the requirements of a library. The Centre has customized SOUL software for many institutes including major universities namely, Banaras Hindu University-Varanasi, Maharaja Sayajirao University-Baroda, Gujarat Vidyapith-Ahmedabad, etc. The Centre is also providing upgrades to the institutions along with their respective customized version of software.

The Centre provides SMS Server application that facilitates libraries to send SMS through SOUL 2.0 application using SMS Gateway on payment basis. More than 15 institutions have started using SMS Server application services integrated with SOUL 2.0 as customised option.

The Centre is also converting client's existing data (from any format) to SOUL 2.0 compliant format on payment basis. During the year under report, the Centre has converted data from different format i.e. MS Excel, MS Access, MS SQL, PostgreSQL, ISO / LibSys, etc. to SOUL 2.0 compliant format. About 2 lakh bibliographic records from 8 different institutes were processed and converted into SOUL 2.0 compliant format.

As a challenging task, bibliographic data compliant was retrieved from Web OPAC of a proprietary LMS installed at Indian Institute of Advanced Studies Library, Shimla and was successfully converted to SOUL 2.0 compliant format.

The Centre also offers data conversion service to new users of SOUL, free-of-cost, if data volume is less than 10,000 records.

**Technologies:** Visual Studio.Net, Microsoft SQL Server 2005, Microsoft Office

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#### 4.2. SOUL-Web Edition

Yatrik Patel, Scientist D (CS)  
Divyakant Vaghela, Scientist B (CS)  
Swapnil Patel, Scientist B (CS)  
Priya Madnan, Project Associate (CS)

The Centre is in process of developing web-based version of SOUL based on the requirement collected from user community. The web edition of SOUL would be platform-independent that would run on any operating system (i.e. Linux, Windows). Any browser could be used as client so that user can work on any device independently e.g. desktop, laptop, mobile, tablet, etc. Moreover, SOUL web edition could be hosted on cloud platform. SOUL (Web edition) is based on Representational State Transfer (REST) protocol, which relies on a stateless, client-server, cacheable communication protocol and in virtually all cases, the HTTP protocol is used. Web-based SOUL can be configured in any language for performing housekeeping operations.

During the period under report, REST based services and interfaces for the Catalogue Module of SOUL Software have been completed.

**Technologies:** Java, JSP, MySQL, REST protocol (JAX-RS), Apache Tomcat

#### 4.3. SOUL New Version (For Microsoft Windows 8 and above)

Yatrik Patel, Scientist D (CS)  
Divyakant Vaghela, Scientist B (CS)  
Swapnil Patel, Scientist B (CS)  
Bhargavi Kadiya, Project Officer (CS)  
Nrutik Prajapati, Project Officer (CS)

The Centre has started working on new version of SOUL software using latest technologies. New version of SOUL for Microsoft Windows 8 and above would be compatible with Microsoft.Net Framework 4.5 and Microsoft SQL server 2014 or later version. The software has the state-of-the-art Graphical User Interface wherein user can create or choose theme for his/her account. Users would be able to change the font size and other parameters as per their requirement for better visual and performance experience. The new version would have built-in facility of sending SMS/email for each circulation transactions along with several enhancements. The new version of SOUL would be responsive. As such, it will be compatible with touch screen laptops/tablets.

During the period under report, Development of interfaces for Administration, Circulation, Acquisition module, Serial Control is in progress.

**Technologies:** Microsoft Visual Studio 2015, WPF, MS SQL 2014, Microsoft Platform



#### 4.4. SOUL Software Sold and Upgraded for Existing Users

H G Hosamani, Scientist C (LS)

HemaCholin, STO (LS)

Shrimali Vijaykumar, STA (CS)

Nabila Shaikh, Project Officer (CS)

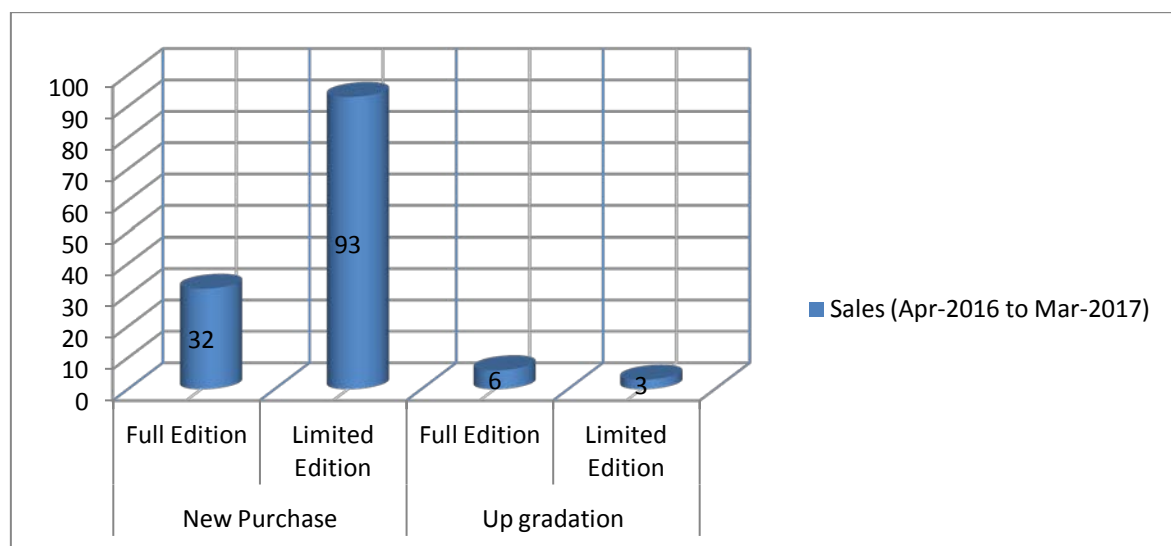


Fig. 14: SOUL 2.0 Software Sold and Upgraded for Existing Users

As depicted in Figure 14, a total number of 134 copies of SOUL Software were sold during the year under report including 125 copies that were sold out to new users and 9 copies that were offered free-of-cost to the users of SOUL 1.0. These 134 copies of SOUL Software included 96 copies of Limited Edition (including 3 copies given free) and 38 copies of Full Edition (including 6 copies given free).

#### 4.5. SOUL Support Services

##### 4.5.1. SOUL Support Cell at INFLIBNET Centre

SOUL Support Cell is a joint activity of Software Development Group & Human Resource Development Group. The SOUL Support Cell helps in handling queries and troubleshooting pertaining to SOUL software, its installation and usage for a user base of 3,352 across the country as per the details given in Appendix VI. The SOUL Support Cell coordinates with the SOUL users and SOUL developers for resolving queries regarding SOUL software and customization issues raised by them. The SOUL Support Cell consists of staff members with library and computer science background. The tools used for handling queries are mentioned below and depicted in Figure 15.

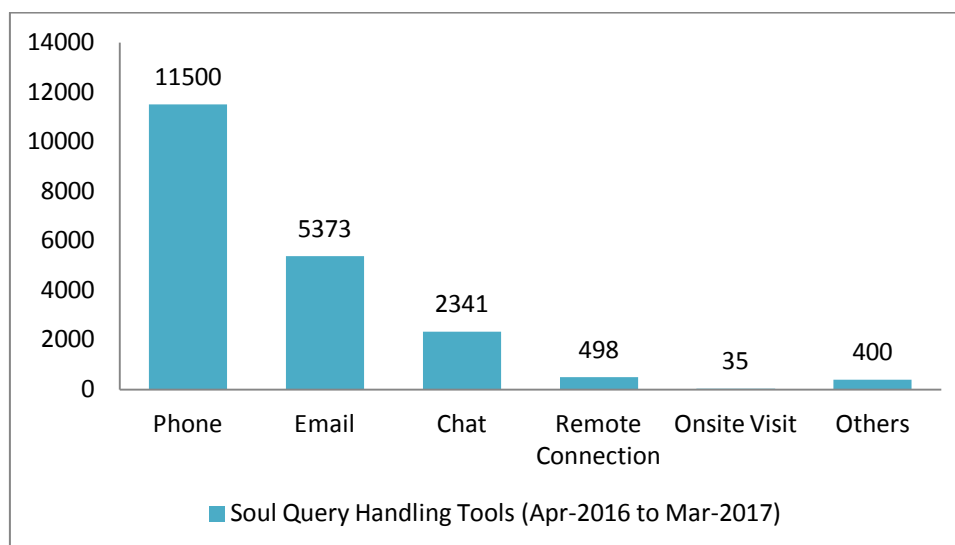


Fig. 15: SOUL Query Handled by SOUL Technical Assistants

**Telephone Helpline:** The Centre has a dedicated telephone line (079-23268300) for handling queries from SOUL users.

**Instant Messaging:** The Centre has created a Google email ID (soulhelp0007@gmail.com) to provide support to SOUL users through Gmail and Google Talk.

**Remote Connection:** SOUL Support Cell uses software such as AnyDesk, Teamviewer, ShowMyPC, etc. to remotely connect the User's SOUL server to view and solve the problems in real time. This method is used for fixing the problem when all other methods of solving the problems do not provide desired result.

**Onsite Visit:** Besides all above methods of solving queries, SOUL Support staff also visits the Institutes of SOUL users in case every other method could not resolve the problem and also if user wants SOUL Technicians to install and upgrade the SOUL at their Institute.

**FAQs:** FAQs (Frequently Asked Questions) was developed based on prolonged experience of SOUL Technicians. FAQs are written with screenshot and step-wise solution to the queries that are being asked frequently. ([www.inflibnet.ac.in/soul/faq.htm](http://www.inflibnet.ac.in/soul/faq.htm))

**SQMs:** The Centre has developed a new software called "Soul Query Management System (SQMs)" that helps to keep track of problems and queries from all active user of SOUL Software. This software helps to serve the users more efficiently by keeping record of the queries, its status and solution offered, which can also help to solve queries from other users.

**Documentation and Updates:** Users can download flow charts for every SOUL 2.0 module and e-book version of User Manual to learn the operations on their own from the INFLIBNET Centre's website. User can also download SOUL 2.0 Demo Version (up to 500 entries) and can practice on



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SOUL 2.0. Besides, minor updates of SOUL 2.0 can also be downloaded from the website free-of-cost which facilitates users to keep their SOUL2.0 software updated.

#### **4.5.2. SOUL Regional Support Services**

The Centre has appointed Eight SOUL Coordinators in different geographical regions of the country to coordinate the activities of SOUL promotion and maintenance. Each SOUL Coordinator employs two to three technical assistants so as to provide proactive support to the SOUL users in their respective regions. Besides, the INFLIBNET Centre coordinates activity of maintenance and promotion of SOUL Software in the state of Gujarat and Rajasthan with help of Soul Technical Assistants. SOUL Coordinators are responsible for providing maintenance support to the existing users as well as for promoting the software to the new users. Names and contact details of the SOUL coordinators are given below in Table 7.

Name	Address/Phone No. / Email/ State
Prof. C. P. Vashishth	<b>Delhi, Uttaranchal &amp; UP</b>
	28-B, Pocket 'A' MIG Flat Ashok Vihar Phase III, Delhi – 110 052 Ph. No. : 011-25774507 (O) 011-27112721 (R) Email : cpv_36@yahoo.co.in
Dr. Sanjay Singh	<b>North Eastern Region</b>
	Dept of Library and Information Science Guahati University, Guwahati- 781014, Assam Mob. : 09435040402, Email: sksgu1@gmail.com
Mr. Lalchatuana Ralte	<b>North Eastern Region</b>
	Librarian, Govt. Hrangbana College, Aizawl-796007, Mizoram Ph No: 09436355362, Email : librarian5923@rediffmail.com
Dr. Dharamraj Kalyanrao Veer	<b>Maharashtra &amp; Goa</b>
	University Librarian Dr. Babasaheb Ambedkar Marathwada University Aurangabad University Campus, Aurangabad – 431004 Mob.: 09423958150, Email: dk.veer@rediffmail.com
Mrs. Nalini A Raja	<b>Maharashtra &amp; Goa</b>
	302, Hari-Kripa, L.T.Road, Borivali (W), Mumbai - 400 092 Maharashtra Mob.: 09920790757, E-mail: nalini99@gmail.com
Mr. Rakesh Kumar Khare	<b>M.P. &amp; Chhattisgarh</b>
	Govt Girls College, Sehore Near Bhopal Naka, Sehore - 466001, Madhya Pradesh Mob. : 099265 35452, Email: soul.rakesh@yahoo.in
Mr. J. Laxma Reddy	<b>A.P., Karnataka, Pondicherry and Kerala</b>
	University Librarian (I/C) Mahatma Gandhi University, Nalgonda -508254, Telangana Mob. : 099081 15333, Email: clicngc@gmail.com
Mr. Biswajit Bhattacharya	<b>West Bengal &amp; Odisha</b>
	Librarian Bidhan Chandra College, Asansol-713304, West Bengal Mob. : 09735737381 Email: biswajit.asn@gmail.com and soulhelpeast@gmail.com
Mr. H G Hosamani	<b>Gujarat and Rajasthan</b>
	Scientist C (LS) and his Team of the SOUL Support Cell INFLIBNET Centre, Infocity, Gandhinagar -382007, Gujarat Ph. No. : 079-23268300, E-mail: soulhelp0007@gmail.com

Table 7: Names of SOUL Coordinators with their Contact Address

## 5. Human Resource Development & Consultancy

H G Hosamani, Scientist C (LS)  
Hema Cholin, STO (LS)  
Shrimali Vijaykumar, STA (CS)  
All Technical Staff Members

One of the important objectives of the Centre is to impart training in the use of ICT to library and information science professionals working in university and college libraries. Since the inception of the Centre in 1991, 721 programmes include annual conventions, training programmes, workshops and seminars focusing on the library automation, networking, e-resource awareness, theses repositories, institutional repositories, etc. have been conducted by the Centre benefiting 58,283 participants. INFLIBNET Regional Training Programmes for Library Automation (IRTPLA) and User Awareness Programmes on e-resources, Shodhganga and plagiarism detection software were conducted across the country in collaboration with the universities and colleges. National and International Conventions called PLANNER in North-eastern regions and CALIBER in various states of India are being organized bi-annually as part of the human resource development activities. The Centre has also conducted a total no. of 130 Training Programmes on SOUL Installation and Operations for Libraries so far. Brief reports on every training programme organized during the period under report are given in Part III : National Conference, Workshops, Seminars and Training Programme of this report. Table 8 given below provides no. of human resources development programmes conducted across the country and no. of participants who benefitted from these programmes during the year under report.

Sl. No.	Name of the Programme	Programmes	Total Participants
1	IRTPLA (INFLIBNET Regional Training Programme on Library Automation)	2	77
2	Onsite / In House Training Programme on SOUL 2.0	1	25
3	Special Training Programme and National Workshops	18	485
4	PLANNER	1	200
5	Training Programme on SOUL 2.0	7	119
6	Shodhganga Awareness Programme/Anti Plagiarism	6	1190
7	National Conference on ETD	1	66
8	e-PG Pathashala: Content Creation for Post Graduate Courses	1	125
9	NML Training Programmes	7	225
10	The 2016 Higher Education Forum	1	50
	<b>Total</b>	<b>45</b>	<b>2,562</b>

Table 8: Conferences/Training programmes/ Workshops/Seminars conducted by INFLIBNET Centre during 2016-17

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## 6. Open Access Initiatives

The current system of scholarly communication inhibits rather than promote access to scholarly information at a time when technology can enable vast improvement in access, speed of publication and save the cost of publication. The present model of publishing is essentially a monopoly of publishers that is driven by the need to publish rather than the need for more information. The open access has emerged as a promising alternative to the current model of scholarly publishing that provides free access to scientific information to its users. The open access publishing model offers access to full-text of journals free of charge to the user through well-organized and professionally-managed web interfaces. The essential premise of open access movement is that the scientific community and society in general benefits from the open exchange of ideas and information unaffected and unencumbered from the limitations of subscription costs, licensing arrangements and copyright inherent to the traditional model of commercial journal publishing. Open access journals and institutional repositories are two routes of open access publishing system.

Open-access journals are considered as “golden route” for providing access to peer-reviewed journal literature in electronic format free-of-charge without any restriction of access. Institutional repositories considered as “green route” to open access publishing, are being set-up in research institutions with anticipation that the faculty and researchers would submit their preprints or post-prints of articles that are either accepted for publication or already published in traditional printed journals.

The open access initiatives at the INFLIBNET Centre are launched with an aim to spread open access movement in universities and institutions of higher learning. The Centre continued all the initiatives that were started in the previous years. These initiatives as described below:

### 6.1. Open Journal Access System (OJAS) (<http://www.inflibnet.ac.in/ojs/>)

Gaurav Prakash, Scientist B (CS)

Mohit Kumar, STA (CS)

The INFLIBNET Centre has installed and configured Open Journal System (OJS), open source software for electronic publishing of the journals, to facilitate hosting of electronic version of journals into open access mode with all processes of submission, peer-reviewing, editing, layout designing and publishing built into it. The initiative encourages universities and institutions that are publishing journals in print format to use the platform for hosting electronic version of their journals free-of-cost on servers at the INFLIBNET Centre. The initiative also encourages faculty in universities to start their own open access journals using this platform.

During the period under report, INFLIBNET Centre received six new proposals for hosting of journals on OJAS platform, however, only one of the journal was selected for hosting on OJAS Platform.



Fig. 16: Open Journal Access System (OJAS)

Figure 16 depicts screenshot of Open Journal Access System (OJAS) interface. The following seventeen journals are currently hosted on OJAS:

- »» Studies in Humanities and Social Sciences, published by Indian Institute of Advanced Study, Shimla;
- »» Journal of Literature, Culture and Media Studies, published by Nagaland Central University, Nagaland;
- »» Assam University Journal of Science & Technology on "Biological and Environmental Sciences" and "Physical Sciences and Technology", published by Assam University Press, Silchar;
- »» ICSSR Journal of Indian Psychological Abstracts and Reviews, published by ICSSR, New Delhi;
- »» ICSSR Journal of Abstracts and Reviews (Economics), published by ICSSR, New Delhi;
- »» ICSSR Journal of Abstracts and Reviews (Geography), published by ICSSR, New Delhi;
- »» ICSSR Journal of Abstracts and Reviews (Political Science), published by ICSSR, New Delhi;
- »» ICSSR Journal of Abstracts and Reviews (Sociology and Social Anthropology), Published by ICSSR, New Delhi;
- »» Management Convergence, published by Mizoram University, Aizwal, Mizoram;
- »» International Journal of Farm Sciences, published by SADHNA, Dr. Y S Parmar, University of Horticulture & Forestry, Nauni, Solan;
- »» Karnataka Journal of Agriculture Sciences, published by Karnataka Agriculture University, Dharwad, Karnataka;
- »» Management Insight, published by School of Management Sciences, Varanasi
- »» Purushashtra – A Journal of Management Ethics and Spirituality, published by School of Management Sciences, Varanasi;
- »» Journal of Knowledge Consortium of Gujarat (Humanities), published by Knowledge

- Consortium of Gujarat, Gandhinagar;
- » Trends in Information Management (TRIM), published by University of Kashmir, Srinagar;
- » The Indian Journal of Animal Reproduction, published by Department of Animal Reproduction, Gynaecology & Obstetrics, Madras Veterinary College, Chennai; and
- » Margins, published by Department of English, Gauhati University, Guwahati.

## 6.2. Shodhganga: A Reservoir of Indian Theses & Dissertations (<http://shodhganga.inflibnet.ac.in>)

Shodhganga is a digital repository set-up for submission of electronic versions of theses and dissertations by students / research scholars in universities in India and make them available in open access to the world-wide academic community in response to the UGC Notification (Minimum Standards & Procedure for Award of M.Phil. / Ph.D Degree, Regulation, 2009/2016) where-in the responsibility of maintaining the digital repository of Electronic Theses and Dissertations (ETDs) is assigned to the INFLIBNET Centre. Shodhganga is set-up using DSpace, an open source software, that uses internationally recognized protocols and interoperability standards. The repository provides a platform to research scholars in universities to deposit, re-use and share their theses and dissertations. Figure 17 depicts the home page of Shodhganga website.

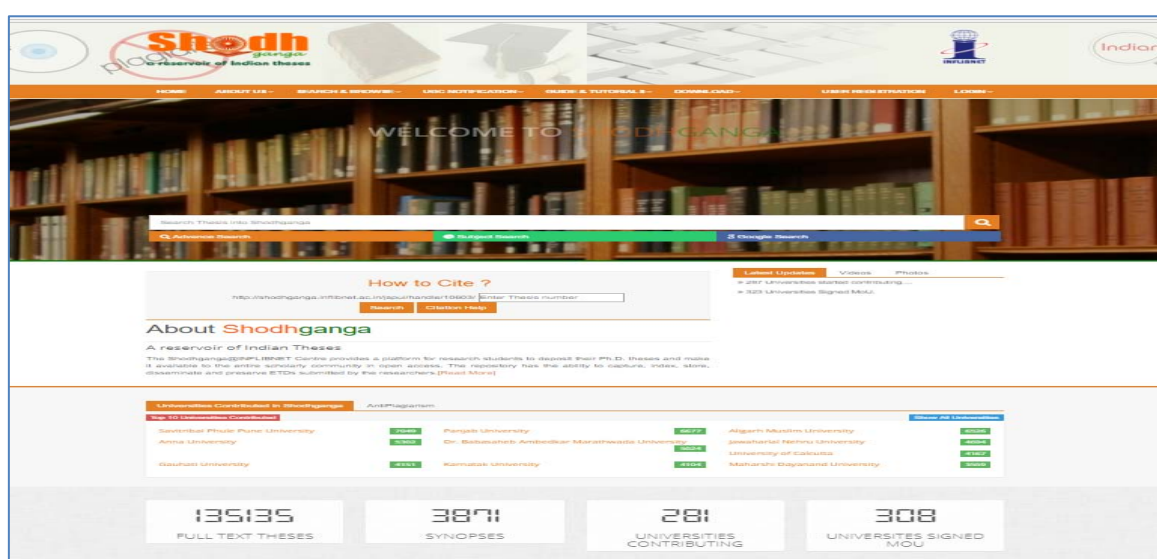
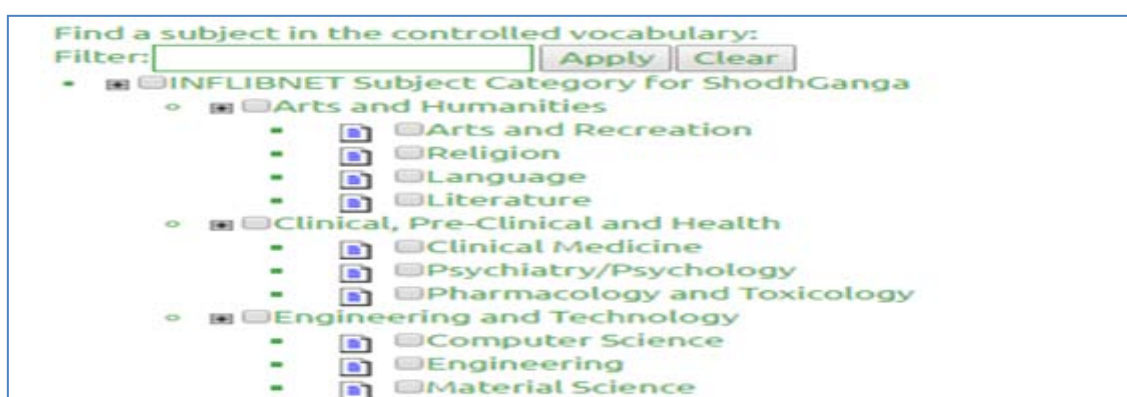


Fig.17: Shodhganga Website

Organisation of theses in Shodhganga reflects the academic structure of every university in the country which offers Ph.D. programme to facilitate the scholars to submit their theses in the respective Department / Centre / College of their Universities. Ingestion interface of DSpace was customized to meet the specific requirements and make the process of submission easy. The customized ingestion interface is simple to use and involves lesser number of steps in comparison to default submission interface of DSpace. The interface facilitates submission of theses either by university administrators, university representatives or researchers. The interface also facilitates self-registration of scholars wherein the user gets e-mail alerts and notifications at different stages

of workflow. The Shodhganga website provides information that is helpful to the researchers, research supervisors and university authorities with regard to ETDs including their responsibilities, access policies, submission process, metadata structure, tutorial, manual, etc.

Besides default search and browse option provided by the DSpace, a subject-based browse and search interface is embedded into Shodhganga consisting of six 6 major subject categories at the first level and 28 subject categories at the second level. The major six subject categories are Arts and Humanities, Clinical, Pre-Clinical and Health, Engineering and Technology, Life Sciences, Physical Sciences and Social Sciences. The search can be extended to micro-level for more precision on the subject domain by using LCSH (Library of Congress Subject Heading List). Figure 18 depicts subject search interface of Shodhganga.



**Fig. 18: Subject Search Interface of Shodhganga**

Considering the fact that the process of adaptation of the UGC Notification may take time for universities, research students are also encouraged to submit electronic version of their Ph.D. theses into the Shodhganga on voluntary basis. Once the submission of theses is mandated by a university, process of submission of theses can be monitored by respective universities so as to ensure that correct and final versions of all the theses from a given university are submitted into the Repository. As such, while universities are signing MoU with INFLIBNET Centre for granting non-exclusive rights to host their ETDs in Shodhganga, students from different universities are also submitting electronic version of their theses into the repository on voluntary basis. As on 31<sup>st</sup> March 2017, researchers from 281 universities have submitted their theses into the repository. 308 universities have signed MoU with the INFLIBNET Centre including 46 universities who have signed the MoU on Shodhganga with INFLIBNET Centre during the year under report. List of universities who have signed MoU with the INFLIBNET Centre on Shodhganga is available at [http://shodhganga.inflibnet.ac.in/annual\\_report/mou2016\\_2017.pdf](http://shodhganga.inflibnet.ac.in/annual_report/mou2016_2017.pdf). Several universities have also started contributing their theses into Shodhganga repository as per the UGC Notification without signing MoU. A list of 35 such universities who contributed soft copies of their theses into Shodhganga without signing an MoU is available at [http://shodhganga.inflibnet.ac.in/annual\\_report/contributing\\_wo\\_mou.pdf](http://shodhganga.inflibnet.ac.in/annual_report/contributing_wo_mou.pdf). Total number of theses submitted into the repository has grown to 1,35,135. Figure 19 depicts year-wise theses



submission into Shodhganga. Figure 20 depicts Month-wise submissions into Shodhganga during the period under report.

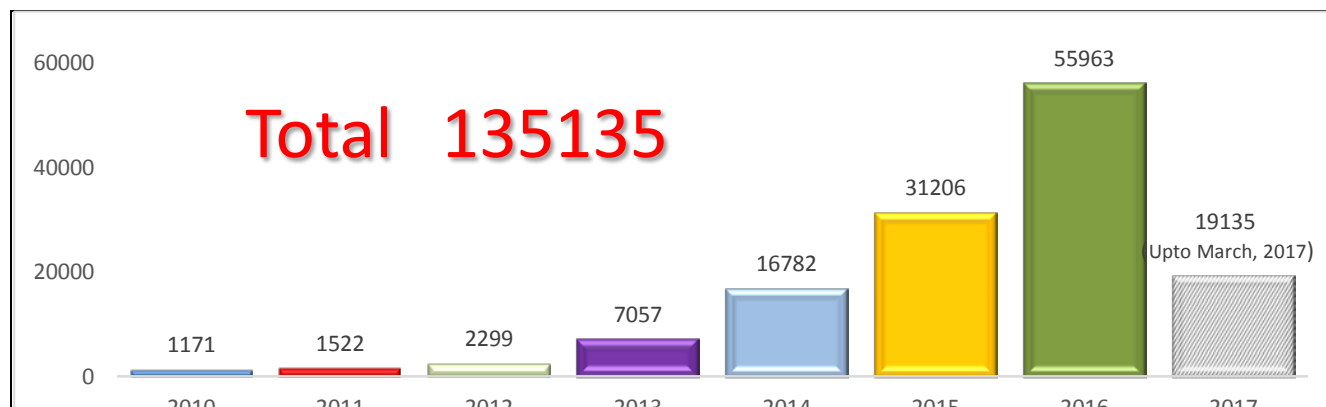


Fig. 19: Year-wise Theses Submission into Shodhganga

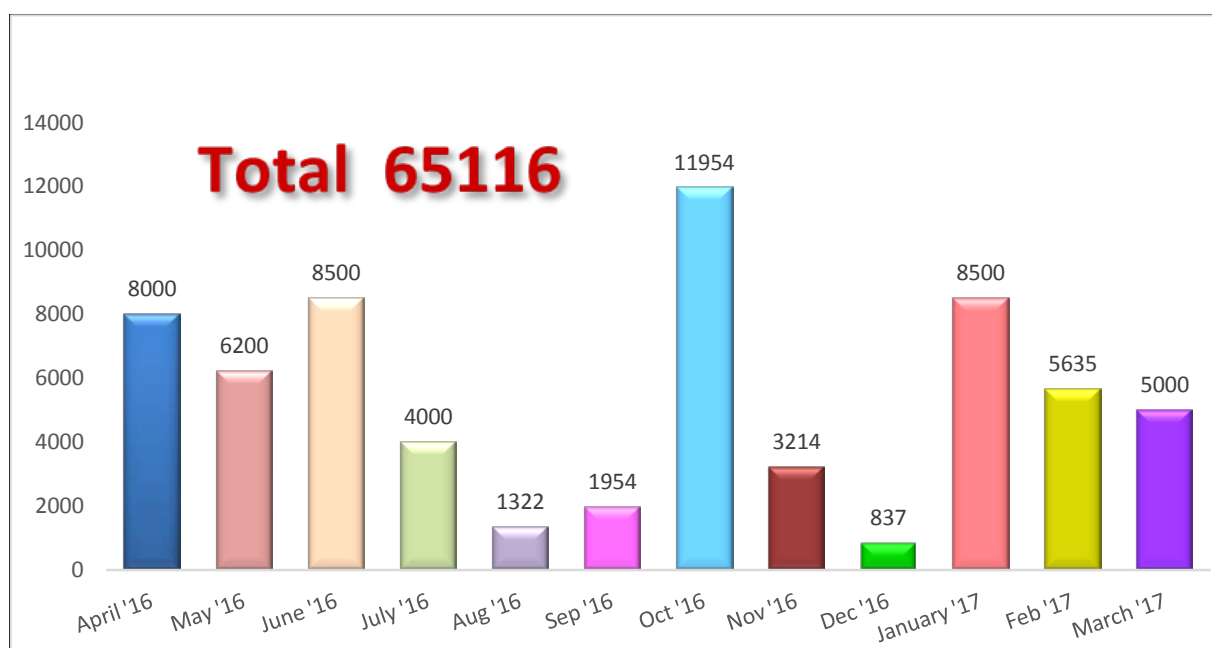


Fig 20: Month-wise Theses Submission into Shodhganga

#### 6.2.1. Incentives to Universities for Signing MoU on Shodhganga with INFLIBNET Centre

The UGC provides following three incentives to eligible universities that are signatory to MoU on Shodhganga.

- Funds for digitization of back list of theses available in universities;
- Funds for setting-up of ETD Laboratory in eligible universities; and
- Extending access to plagiarism detection software package in member universities.



The funds are released to eligible universities on recommendations of the INFLIBNET Centre makes recommendation for release to eligible universities as per the guidelines approved by a Committee of Experts appointed by the UGC on Shodhganga scheme.

So far, on the recommendation of the INFLIBNET Centre, UGC has released Rs. 12.31 crores to 87 eligible universities for digitization of backlist of theses as well as for setting-up of ETD Laboratories in their respective universities. In addition, release of Rs. 1.69 crores to 9 universities is in the process.

#### 6.2.2. Fund released to INFLIBNET Centre on Shodhganga

In addition to Rs.1.74 crores released to the INFLIBNET Centre by the UGC during FY 2012-2013, Rs. 1.40 crores has been sanctioned for subscription to plagiarism detection software for universities as well as for meeting other expenses including manpower, hardware, training, workshops and travel.

#### 6.2.3. Subscription to URKUND: a Plagiarism Detection Software

INFLIBNET Centre provides access to URKUND: a plagiarism detection software to eligible universities that are covered under Sections 12(B)/2(f) of the UGC Act and have signed MoU on Shodhganga with INFLIBNET Centre. 153 eligible universities were provided access to URKUND software during the year under report. List of universities having access to URKUND software is available at [http://shodhganga.inflibnet.ac.in/annual\\_report/urkund.pdf](http://shodhganga.inflibnet.ac.in/annual_report/urkund.pdf). Figure 21 depicts month-wise submissions of theses for plagiarism checked in URKUND from April 2016 to March 2017. An average of 9,940 submissions are made to URKUND for plagiarism check.

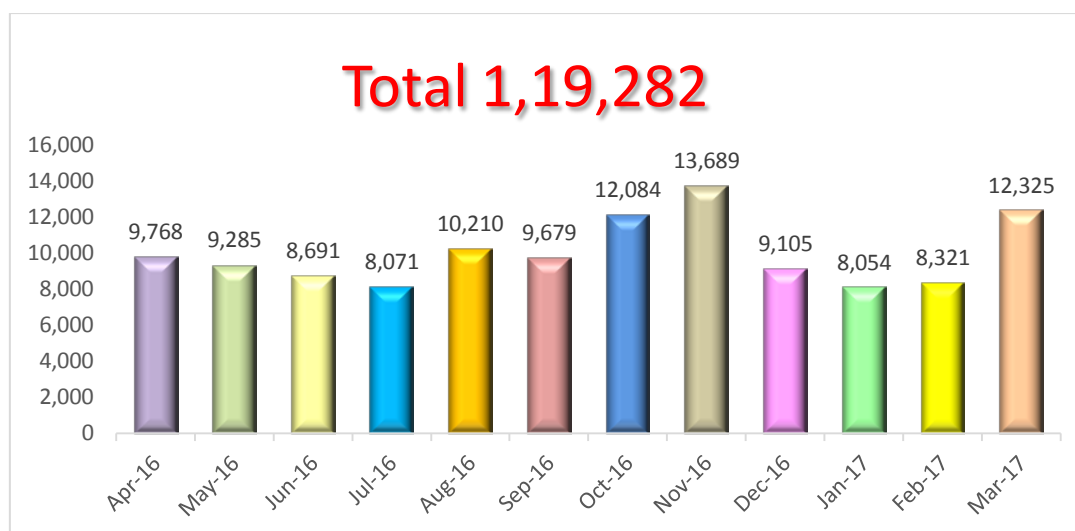


Fig. 21: Submissions in URKUND

#### 6.2.4. Usage Statistics

Usage of theses hosted in Shodhganga repository by academic community across the world is monitored by the Centre with an aim to measure usage of this resource. General statistical summary for Shodhganga including page views, theses views, department views, university views and website views are shown below in Figure 22. The usage has considerably increased with hosting of repository on more robust infrastructure. Detailed usage statistics for last nine months (i.e. July 2016 to March 2017) is given in Table 9.

Views	July '16	Aug '16	Sep'16	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	Total
Page Views (Bitstream )	325,16,468	254,37,642	215,57,419	156,66,219	189,91,075	184,43,872	192,94,686	247,97,633	216,46,389	1983,51,403
Theses Views (Item )	33,61,716	32,44,782	31,74,055	27,77,998	38,88,299	28,40,883	30,11,470	38,66,627	22,38,349	284,04,179
Department /Colleges/ Centre Views (Collection)	6,01,942	6,99,889	7,71,553	5,83,674	7,33,556	7,32,491	7,41,373	7,58,125	4,03,020	60,25,623
University Views (Community)	2,71,303	2,86,409	3,10,666	2,25,508	2,91,018	2,84,159	3,03,197	3,05,082	1,95,219	24,72,561
Searches Performed	16,49,263	29,16,021	14,42,415	15,89,000	17,02,224	10,04,637	9,74,197	1,055,93	9,53,196	122,30,953

Table 9: Month-wise Usage Statistics

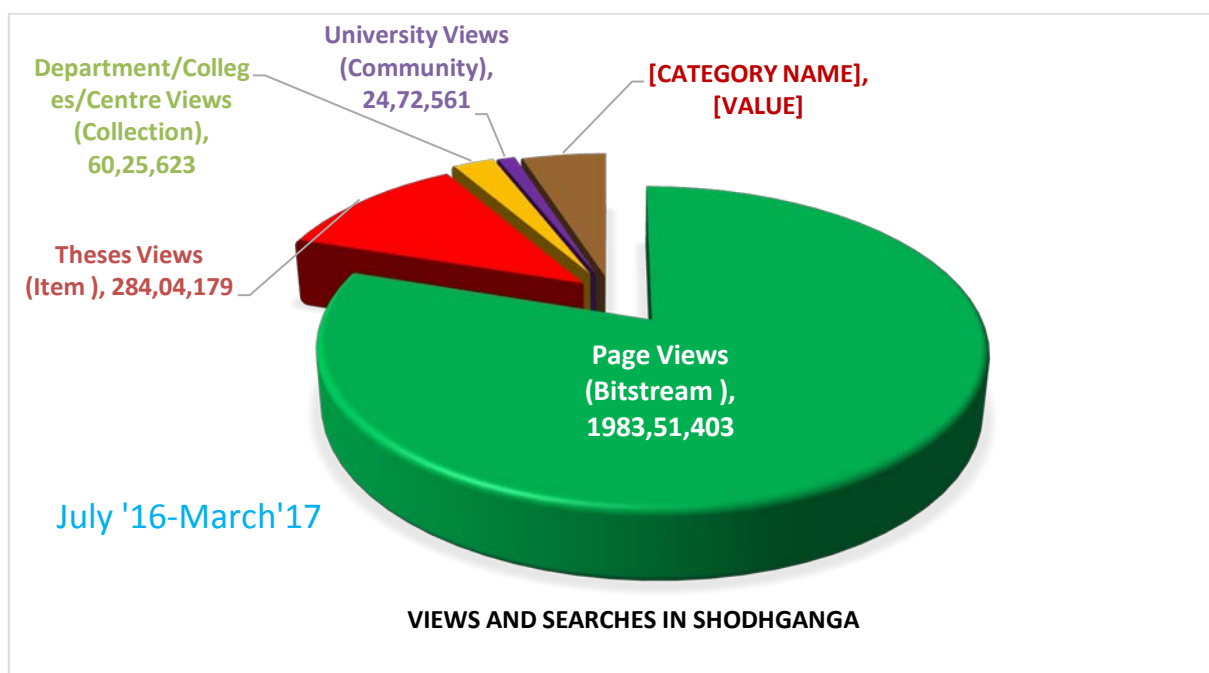


Fig. 22: Shodhganga General Statistical Summary

The Top 10 theses that are viewed highest number of times with title, researcher, guide and university along with their handle URL in 18 months is given below in Table 10. (From October 2015 to March 2017)

Sl. No.	Title and Handle No.	No. of Views
1	Women freedom fighters in Tamil Nadu ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/14211">http://shodhganga.inflibnet.ac.in/handle/10603/14211</a> )	17,648
2	Humour in Malayalam short stories ഹാസ്യചെലയാളചരുകഥയില് ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/7650">http://shodhganga.inflibnet.ac.in/handle/10603/7650</a> )	16,808
3	Bhartiya samvidhan ke nirmaan me Dr Bhimrav Ambedkar ka yogdaan ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/18213">http://shodhganga.inflibnet.ac.in/handle/10603/18213</a> )	14,772
4	Political and administrative ideas of Manu and Kautilya: a comparative study ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/4285">http://shodhganga.inflibnet.ac.in/handle/10603/4285</a> )	13,584
5	History of English literature in Pre-Post Independence India: a critical evaluation ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/4901">http://shodhganga.inflibnet.ac.in/handle/10603/4901</a> )	12,810
6	A study on job satisfaction of bank employees with special reference to State Bank of India, Kanyakumari district ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/13997">http://shodhganga.inflibnet.ac.in/handle/10603/13997</a> )	12,000
7	R K Narayan ke angreji upanyas The Guide ke Hindi anuvado ka tulnatmak anushilan ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/24614">http://shodhganga.inflibnet.ac.in/handle/10603/24614</a> )	10,864
8	Hosa shathamana kannada sanna kathegalu ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/45696">http://shodhganga.inflibnet.ac.in/handle/10603/45696</a> )	10,230
9	Thematic patterns in the novels of Amitav Ghosh ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/7898">http://shodhganga.inflibnet.ac.in/handle/10603/7898</a> )	10,188
10	A comparative study of life insurance Corporation of India and private life insurance companies in India ( <a href="http://shodhganga.inflibnet.ac.in/handle/10603/3519">http://shodhganga.inflibnet.ac.in/handle/10603/3519</a> )	9,016

Table 10: List of Top 10 Theses viewed

#### 6.2.5. CFTIs Joined Shodhganga

As such, 14 CFTIs have signed MoU with INFLIBNET Centre and have started uploading their theses into Shodhganga as per the directives issues by the MHRD. List of CFTIs signed MoU is available at [http://shodhganga.inflibnet.ac.in/annual\\_report/cfti\\_mou.pdf](http://shodhganga.inflibnet.ac.in/annual_report/cfti_mou.pdf).

#### 6.3. Shodhgangotri: A Repository of Synopses submitted to Indian Universities for Registration in Ph.D. Programme (<http://shodhgangotri.inflibnet.ac.in/>)

Under this initiative, research scholars / research supervisors in universities could deposit an electronic version of approved synopsis submitted by research scholars to the universities for registering themselves under the Ph.D. programme. Synopsis in Shodhgangotri would later be

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mapped to full-text thesis in Shodhganga. As such, once the full-text thesis is submitted for a synopsis, a link from synopsis in Shodhgangotri to the full-text theses in Shodhganga will be provided. During the year under report, 50 universities contributed their synopses into Shodhgangotri. Total number of synopses submitted into repository grew to 3,871.

#### **6.4. InfoPort: A Subject Gateway to Indian Scholarly Internet Resources (<http://infoport.inflibnet.ac.in/>)**

Yatrik Patel, Scientist D (CS)  
Swapnil Patel, Scientist B (CS)  
Roma Yogesh Asnani, STA (LS)

INFOPORT: INFLIBNET Subject Gateway for Indian Electronic Resources is designed to facilitate registering of an Internet resource into the portal and extending its access to users. INFOPORT supports browsing of Internet resources by Dewey Decimal Classification (DDC) Scheme. The main functional parts of INFOPORT are:

- Dewey Decimal Classification (DDC) Search;
- Search Cloud;
- Free-Text Search;
- Alphabetical Search;
- Resource Type Search; and
- Intute Search

During the year under report, number of features and functionalities of subject gateway were enhanced based on feedback from users and additional Internet resources were added to the portal. The interface is populated with more than 1,760 e-resources.

### **7. Consortia-based Subscription to E-resources**

The INFLIBNET Centre has set-up a consortia, namely e-Shodh Sindhu Consortium and its college component called "National Library and Information Services infrastructure for Scholarly Contents (N-LIST)" to extend access to e-resources to universities and colleges respectively. Two separate entities within the umbrella of e-Shodh Sindhu were maintained not only to cater to the diverse needs of two sets of institutions, namely CFTIS and universities and colleges, but also to satisfy the requirements of different economic models. A brief description of the two consortia is given below.

#### **7.1. E-Shodh Sindhu Consortium**

The MHRD in September, 2012 constituted an Expert Committee on Library Consortium with an aim to survey the current scenario of Government-funded library consortia in India, explore the possibilities of joint negotiations and collaborative services amongst various consortia. The survey

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report on Govt.-funded library consortia carried out by the INFLIBNET Centre revealed that there is more than 65.71% duplication of resources amongst various Government-funded consortium. Moreover, there is 14.81% duplication in the number of resources that are being subscribed by three MHRD-funded consortia namely UGC-INFONET Digital Library Consortium, INDEST-AICTE Consortium and N-LIST to 33.33% among first two MHRD-funded consortia. Moreover, resources that are not duplicated are being either being subscribed by individual libraries or are being cross-subscribed through N-LIST project. Considering these fact, the report submitted by the Expert Committee to the Ministry recommended that there would be a huge advantage in bringing the three consortia under the Ministry of HRD under one umbrella. Based on the recommendation of the Expert Committee, formation of e-Shodh Sindhu was notified in December 2015 merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, INDEST-AICTE Consortium and NLIST.

#### **7.1.1. Governance**

The MHRD has constituted three national committees consisting of MHRD officials, representatives of member institutions and experts in library and information science. Composition of these three committees and their role and responsibilities are given below.

##### **7.1.1.1. National Advisory Committee**

National Advisory Committee for e-Shodh Sindhu is constituted by the MHRD to advise and guide the Consortium on rates negotiated by it as well as on collaborative services between MHRD-funded institutions. The current composition of National Advisory Committee is given in Appendix VII.

##### **7.1.1.2. National Steering Committee**

E-Shodh Sindhu is being operated by the INFLIBNET Centre under the overall guidance of a National Steering Committee that guides and steers the activities of the Consortium. The current composition of National Steering Committee is given in Appendix VIII.

##### **7.1.1.3. Joint Negotiation Committee**

The Joint Negotiation Committee is constituted by the MHRD for negotiating rates of subscription to e-resources. The current composition of Joint Negotiation Committee is given in Appendix IX.

##### **7.1.1.4. Resource Selection Committee (RSC)**

The National Steering Committee has constituted Resource Selection Committees for selection of appropriate e-resources for member institutions of the Consortium. The current composition of Resource Selections Committee is given in Appendix X.

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### 7.1.2. Member Institutions

The membership of the Consortium, as on now, is available to CFTIs, Central Universities, deemed universities funded by UGC and universities & colleges that are covered under 2(f) and 12(B) Sections of UGC Act. All expenses on subscription to e-resources for these institutions are borne by the MHRD. In addition, access to e-resources to Government engineering colleges is provided with funding from the AICTE. The access is extended to other institutes under Associate Membership programme of e-Shodh Sindhu. Categories of member institutions of e-Shodh Sindhu entitles for access to e-resources through e-Shodh Sindhu given below in Table 11.

Sl. No.	Category	No. of Institutions
1	IITs & IISc	17
2	NITs, ISM, SLIET & NERIST	22
3	IIMs	13
4	IISERs	5
5	IIITs, IIST, NITIE, NIFFT and NITTTR	9
6	12 (B) State Universities	135
7	Central Universities	40
8	Deemed Universities (UGC funded)	22
9	National Law Schools/Universities	15
10	IUCs of UGC	6
	<b>Total</b>	<b>284</b>

**Table 11: List of Member Institutions**

The Consortium also provides access to three e-resources, namely; ASCE, ASME, IEEE-ASPP to 94 AICTE Funded institutions (including 22 Universities/department of Universities) with the funding from the AICTE. The Consortium also provides access to 6500+ journals and 15000+ ebooks to more than 3000 colleges under the NLIST programme. The list of institutions included in various categories of institutions is given in [http://ess.inflibnet.ac.in/pdf/member\\_2017.pdf](http://ess.inflibnet.ac.in/pdf/member_2017.pdf).

### 7.1.3. Current Status: Services and Activities

The INFLIBNET Centre acts as a nodal agency for implementation, monitoring and execution of the entire programme through the committees mentioned above. It coordinates all activities concerned with negotiation, renewal of subscription to e-resources and subsequent trouble shooting on behalf of the Consortium. e-Shodh Sindhu also promotes cooperation amongst member institutions and facilitates better terms of references for use and preservation of subscribed electronic resources.

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#### **7.1.3.1. Implementation and Execution of the Programme**

The consortium co-ordinates the meeting of various committees of the consortium, negotiates rates of subscription to e-resources and terms and conditions of access to e-resources. The INFLIBNET Centre has also developed a Model License Agreement for subscription of e-resources. The INFLIBNET Centre also subscribes the e-resources and signs license agreement on behalf of the member institutions of e-Shodh Sindhu.

#### **7.1.3.2. Access to e-Resources**

The Consortium co-ordinates with the member institutions and publishers for smooth access to e-resources through static IP addresses of member institutes. Since most colleges do not have static IP addresses, access to e-resources to the registered colleges is provided through EZ-Proxy set-up at the INFLIBNET Centre. The authorized users from colleges can access e-resources and download articles required by them directly from the publisher's website once they are duly authenticated as authorized users through EZ-Proxy deployed at the INFLIBNET Centre. The Consortium has developed an online interface for creation, updation and modification of valid users of the colleges by the respective college administrators. The consortium also attends to the problems faced by member institutions and liaise with publishers to resolve such problems.

#### **7.1.3.3. Maintain and Update Consortium Website**

The consortium maintains a comprehensive website for providing detailed information about subscribed e-resources and member institutions. The Consortium has developed tutorials and promotion materials for imparting training and technical support to member institutions. The consortium website provides options to search and browse subscribed journals, search for member institutions and view the e-resources subscribed for them by the e-Shodh Sindhu. The member institutions can also download list of journals available under various e-resources in xls format, which in turn, can be used for updation of their local library systems. Figure 23 depicts the home page of e-Shodh Sindhu website.

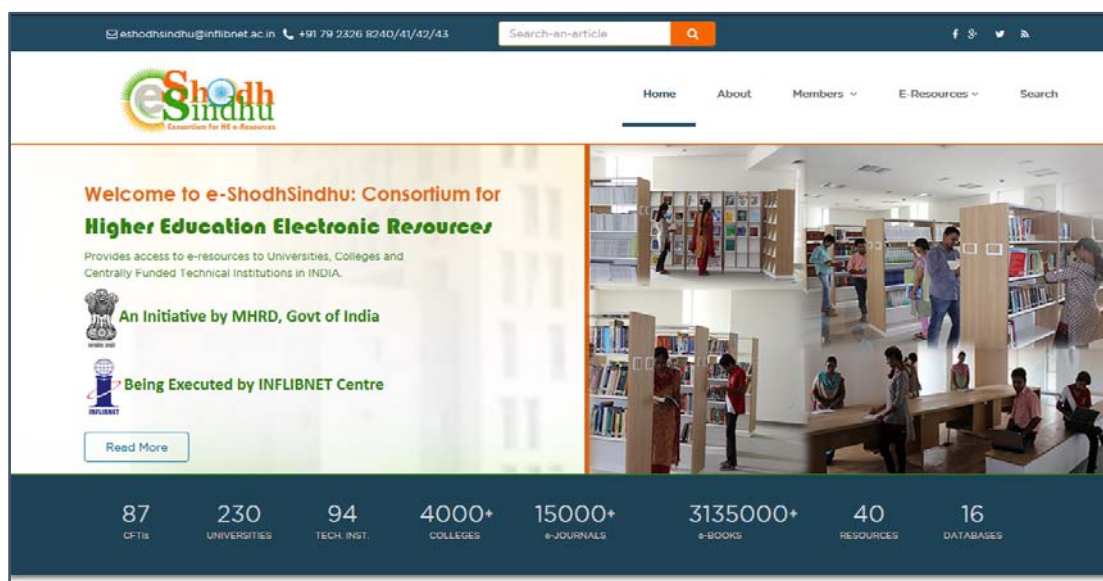


Fig. 23: e-Shodh Sindhu website

#### 7.1.3.4. Monitoring of Usage of e-Resources

The consortium evaluates and monitors usage of subscribed e-resources. The INFLIBNET Centre has developed a portal called InfiStats, for monitoring the usage statistics of various e-resources made accessible to the member institutions. The InfiStats uses "Standardized Usage Statistics Harvesting Initiative (SUSHI)" Protocol (ANSI/NISO Standard No. Z39.93-2007) that defines an automated request and response model for harvesting of usage data for electronic resources using Web services framework. The InfiStats portal imports the usage data from the publisher's website automatically and store it in a database on InfiStats platform. The InfiStats interface provides title-level COUNTER-compliant reports to member institutions. The member institutions can also login to this portal for monitoring the usage of their respective e-resources. Figure 24 depicts the home page of InfiStats website.



Fig. 24: InfiStats Website



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#### **7.1.3.5. Off-Campus Access to e-Resources**

While IP-based access is most convenient, safe and hassle-free authentication mechanism for publishers as well as for subscribing institutions, it has its limitations. One of the most serious limitation of IP-filtered access to e-resources is that the users can access e-resources only when they are on the Institute campus. Ideally, an authorized user should be able to access e-resources irrespective of his / her physical location at any time as long as he has access to the Internet.

In order to overcome this limitation, the INFLIBNET Access Management Federation (INFED) was set-up which uses Shibboleth, a standard-based open source software, for authenticating authorized users from colleges and universities and provide them seamless access to e-resources from anywhere, anytime. Shibboleth offers a mechanism for users to access multiple resources within federated single sign-on framework. The goal of the INFED is to allow users to access internal and external resources seamlessly using a single, institutionally controlled identity. This would not only allow authorized users to access e-resources from anywhere, anytime but would also circumvent the requirement of maintaining multiple passwords for multiple resources in multiple domains. The INFED has already made agreements with 9 publishers for this service. More publishers will be joining INFED in near future.

#### **7.1.4. Electronic Resources**

The Consortium subscribes to electronic resources covering all major subject discipline being taught in CFTIs, universities and colleges. It includes wide variety of materials including e-journals, bibliographic databases, factual databases, reviews published by scholarly societies, university presses, institutions, commercial publishers and aggregators. The member institutions are provided differential access to these resources based on their needs and activity profile as per the decision of the National Steering Committee of the Consortium. The list of e-resources available to various categories of institutions is given in Appendix XI.

#### **7.1.5. Archives and e-Books Purchased under E-Shodh Sindhu**

The e-Shodh Sindhu Consortium also purchased / subscribed to South Asia Archives (SAA) and World E-Book Library (WEL) on behalf of National Digital Library (NDL). The World e-Book Library include 3 million (30,00,000) primary sources spanning past 1,000 years of world history in more than 320 different languages. In addition, contemporary journal collections of WeL include scholarly journals and academic articles from every academic field. The South Asia Archive contains more than 4.5 million pages spanning the period of 18th and mid-20th century from documents across the Indian subcontinent, including India, Pakistan, Burma, Afghanistan and Bangladesh. The access to SAA and WEL is available to all the institutions covered under the e-Shodh Sindhu Consortium as well as institutions under other Govt. funded Consortium like CERA, DelCON, CSIR-NKRC, DRDO

etc. The access to both these resources is also available to individuals through the National Digital Library.

#### 7.1.6. Major Achievements of e-Shodh Sindhu

- i) **Increase in Content Accessible to Each Category of Institutions:** Total number of unique journal titles subscribed under e-Shodh Sindhu increased to 11719 from 11064 (5.9% increase) with substantial increase in access to journals for each categories of institutions as mentioned below in Table 12:

Categories of Institutes	No. of Journal Titles		% of Increase in No. of Journals
	2015	2016 (eSS)	
Universities	7847	8481	8.10
IITs	4277	7949	85.90
New IITs	494	3904	690.30
NITs*	504	3713	636.70
IISERs	460	3884	744.30
IIITs	1470	4416	200.40
IIMs	6034	9607	59.20
NITTRs	166	2764	1565.10
NIFFT	1426	4192	194.00

\* Including SLIET, ISM and NERIST

Table 12: Increase in Content Accessible to Each Category of Institutions

- ii) **Print / Core-Independent Subscription:** Four publishers, namely Oxford University Press, Emerald, AIP and APS have offered print-independent subscription to their entire collections of journals for universities as well as for CFTIs. The CFTIs / universities can drop their print / core subscription for these four publishers.
- iii) **Rates of Subscription Freezed at 2015 Level:** Several publishers including, ACM Digital Library, IEEE / IEL Online (Category I Institutions), ASME, ASCE, IoP, Annual Reviews, Elsevier Science, Nature, Springer, Wiley, AIP, CUP, Taylor & Francis, etc. have offered their e-journals on the rates applicable in 2015 without increase in annual subscription rates. In 2017, increase was restricted from 0 to 4%.
- iv) **Decrease in Rates of Subscription for Increased Number of Institutions:** Some publishers have brought down their rates of subscription with increase in number of subscribing institutions. Such publishers include: ABI / Inform, EPW, Web of Science, etc.

- v) **Upgraded Access to IEEE journals:** IEEE access was upgraded to Level II for 34 Institutes including IITs and NITs during 2017.
- vi) **Access to e-resources to Centrally-funded Technical Institutions at Rates applicable to Universities:** Project Muse, SIAM and Project Euclid have agreed to provide access to their respective e-resources to CFTIs at rates applicable to universities.
- vii) **Applicability of TDS without Increase in Rates of Subscription:** All publishers, including university presses, scholarly societies and not-for-profit publishers have agreed for TDS deduction without increase in subscription rates. It essentially means that 10 to 11% of total payments made to the publishers is being recovered as tax from the publishers that was not applicable for INDEST part of expenditure.
- viii) **Access to e-Resources to New Eligible Institutions:** Consortium has proposed to extend access of e-resources to new members of the e-Shodh Sindhu which includes 30 CFTIs, 13 universities and 1,000 colleges during the year 2017.
- ix) **Total Savings by eSS and Member Institutions:** Total savings by the eSS and member institutions is Rs. 30.55 crores (for the year 2016) which includes savings on no-increase in rates of subscription and discontinuation of print subscription to OUP and Emerald journals by the member institutions.
- x) Meta data of all publishers' journals are available to users through National Digital Library.

#### 7.1.7. Funds Released during FY 2015-16 and 2016-17

The Consortium received Rs.168.00 crores in the FY 2015-16, Rs. 235.00 crores during FY 2016-17 including Rs. 21.32 crores for World e-Book Library and South Asia Archive. The details of funds released is as given below Table 13:

Sl.No.	Funds Released	Rupees in Crores
	<b>FY 2015-2016</b>	
1	Funds released in Dec 2015 (Vide Letter no F.16-23/2014-TEL, dated 19th Dec 2015)	168.00
	<b>FY 2016-2017</b>	
1	Funds released in May 2016 (Vide Letter no F.16-23/2014-TEL, dated 9th May 2016)	39.00
2	Funds released in November 2016 (Vide Letter no F.16-23/2014-TEL, dated 20th Oct 2016)	22.58
3	Funds released for WEL & SAA	21.32

	(Vide Letter no F.16-23/2014-TEL, dated 11th Aug 2016)	
4	Funds released in Dec 2016 (Vide Letter no F.16-23/2014-TEL, dated 27th Dec 2016)	127.10
5	Funds released in February 2017 (Vide Letter no F.16-23/2014-TEL, dated 10th Feb 2017)	25.00
	<b>Total (FY 2016-2017)</b>	<b>235.00</b>

Table 13: Funds Released during FY 2015-16 and 2016-17

### 7.1.8. Usage of e-Resources: Analysis

Most publishers maintain detailed usage statistics for resources made accessible to subscribing institutions. The publishers provide username and password to subscribing institutions for accessing the usage statistics for their resources for monitoring purpose. The Consortium analyses the usage on various parameters as mentioned below.

#### 7.1.8.1. Average Cost of an Article

The average cost per download represents average cost of each access event to a full-text article and is calculated by dividing subscription cost of a resource by the number of articles downloaded.

The Table 14 given below, provide the cost per download of an article. The cost per download is lowest for JSTOR (Rs.7.19) and the highest for Project Euclid (Rs. 362.69), whereas the Consortium average is Rs. 83.30.

Sl. No.	Resource Name	Total FT Downloads	Cost per Use (in Rs.)
1	ACM Digital Library	199419	105.26
2	American Chemical Society	1686447	48.68
3	American Institute of Physics	600368	72.60
4	American Physical Society	179986	116.62
5	Annual Reviews	161313	164.55
6	ASCE Journals Online	235768	112.51
7	ASME Journals Online	217707	110.70
8	Emerald - CFTI/Univ Collection	516252	148.99
9	IEEE Explor	2595768	32.60
10	Institute of Physics	219066	147.31
11	JSTOR	3347417	7.19
12	Nature	372192	64.04
13	OSA Optics InfoBase	71831	91.39
14	Oxford University Press	478500	141.21
15	Portland Press	58752	66.02

16	Project Euclid	7001	362.39
17	Project Muse	147305	344.57
18	Proquest-ABI/Inform Complete	165286	54.92
19	Royal Society of Chemistry	756695	47.47
20	ScienceDirect - 10 Subject Collections	7252021	103.62
21	SIAM	54088	311.67
22	Springer Link	1876265	135.70
23	Taylor and Francis	669075	104.57
24	Wiley Blackwell Publishing	1238905	136.51
	Average Cost per Article		83.30

**Table 14: Cost per Download for Full-Text e-Resources for the Year 2016**

#### **7.1.8.2. Correlation between Number of Downloads & Publication Pattern of Institutions**

Since e-Shodh Sindhu Consortium is formed merging the INDEST-AICTE Consortium and the UGC-INFONET Digital Library Consortium, the Consortium has made an analysis of correlation between the number of full-text downloads and the publication pattern of both these institutions as shown in Table 15 and Table 16. The objective of measuring correlation between number of research articles and number of downloads is to find out whether this increase is influenced by the ease of access to scholarly publications that both the consortium has made available to their member institutions.

Year	No. of Downloads	No. of Publications
2004	882043	8759
2005	1850089	9806
2006	2363405	11428
2007	3154057	13394
2008	5333855	15149
2009	7392695	16357
2010	9805984	17556
2011	14578324	19874
2012	16238250	20863
2013	20093517	22494
2014	20794278	24000
2015	21011407	25756

**Table 15: No of Full-Text Downloads and No. of Publications of Member Institutions of UGC-INFONET Digital Library Consortium**

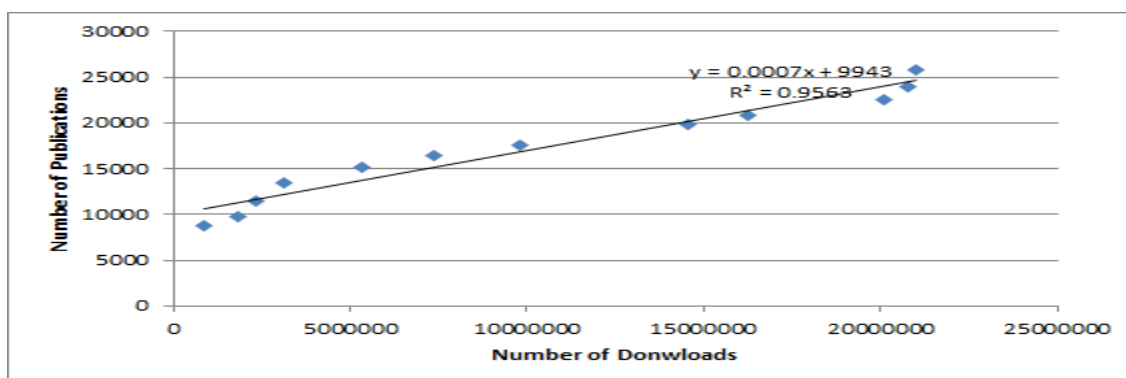


Fig. 25: Correlation between no. of Full-Text Downloads and Publication of UGC-INFONET Digital Library Consortium

Year	No. of Downloads	No. of Publications
2004	3251103	4464
2005	5938928	5071
2006	5188078	5879
2007	8116670	6693
2008	9389190	7646
2009	10555937	8218
2010	12567617	8819
2011	11407486	9434
2012	12876334	10404
2013	15685592	12062
2014	17370409	13970
2015	16148191	16286

Table 16: No of Full-Text Downloads and No. of Publications of Member Institutions of INDEST AICTE Consortium

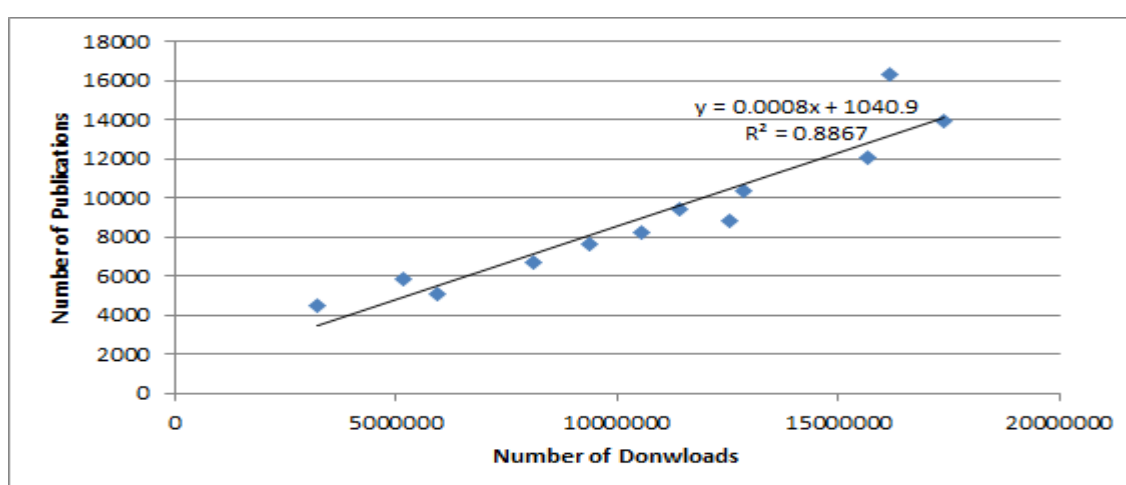


Figure 26: Correlation between no of Full-Text Downloads and Publications of Member Institutions of INDEST AICTE Consortium

The correlations between number of publications against the number of articles downloads by the member institutions over a period of 12 years, i.e. 2004–2015 has been calculated for both the consortia. To get a measure of the statistical correlation between the two variables, without assuming any parametric relation between them, Spearman's rank-order correlation coefficient and Pearson's linear correlation (r) has been measured as data points shown in Figure 25 and Figure 26 given above. The Spearman's rank-order correlation provides a non-parametric measure of the positive or negative correlation between the variables and would be zero if there is no association between the number of publications and the number of downloads. Pearson Correlation Coefficient is a measure of the linear correlation between two variables. It has a value between +1 and -1, where 1 is total positive linear correlation, 0 is no linear correlation, and -1 is total negative linear correlation. The Figure 25 and Figure 26 given above reflect significant increase in the number of research publications in various disciplines since the beginning of the UGC-INFONET Digital Library Consortium. The Pearson correlation coefficient for UGC-INFONET Digital Library Consortium is 0.9563 and for INDEST AICTE Consortium is 0.8867. This indicates that there is a strong and positive correlation between these two variables.

#### 7.1.9. Document Delivery through J-Gate Plus@ e-Shodh Sindhu

The J-Gate Plus@e-Shodh Sindhu is a virtual library of journals literature created as a customized e-journal articles access gateway and database solution for member institutions of e-Shodh Sindhu. It provides article level access to e-journals subscribed under the Consortium as well as e-journals subscribed by 26 university libraries designated as ILL Centres of the INFLIBNET Centre. Moreover, increasing number of CFTIs are now contributing their journal subscription details in the J-Gate Plus. It acts as a gateway to search 47,000+ journals including 25,000+ journals subscribed by the Consortium as well as universities designated as ILL Centres. The J-Gate Plus interface facilitates triggering of e-mail request for articles that are not accessible online and are available only in universities designated as ILL Centres.

During the period under report, 778 ILL requests were received from member universities to the INFLIBNET Centre out of which 739 requests were fulfilled. Details of numbers of article requests received from member universities are given below in Table 17:

Sl. No.	Requested By	DDR-DU	DDR-F	DDR-P	DDR-UF	Total
1	Annamalai University Library	4	109	0	0	113
2	Dr. B.R. Ambedkar Memorial Library - Acharya Nagarjuna University	0	96	0	1	97
3	Tata Institute of Social Sciences	1	55	0	0	56
4	Mohanlal Sukhadia University	1	27	0	0	28
5	Alagappa University	0	22	0	1	23
6	Manonmaniam Sundaranar University	0	19	0	0	19
7	Sikkim University	0	18	0	0	18

8	Sri Sathya Sai Institute of Higher Learning	0	15	0	1	16
9	Barkatullah University	0	15	0	0	15
10	Gurukula Kangri Vishwavidyalaya	0	15	0	0	15
11	Indian Institute of Technology - Kharagpur	0	15	0	0	15
12	Guru Jambheshwar University of Science & Technology	0	14	0	0	14
13	Periyar University	0	13	0	0	13
14	Gulbarga University	0	11	0	1	12
15	Kannur University	0	12	0	0	12
16	National Institute of Industrial Engineering - Mumbai	0	11	0	0	11
17	National Institute of Technology - Kurukshetra	0	11	0	0	11
18	Jiwaji University Gwalior	4	6	0	0	10
19	Sri Padmavati Mahila Vishwavidyalayam (Womens University)	0	10	0	0	10
20	BharatiVidyapeeth	0	8	0	1	9
21	Cochin University of Science and Technology	0	9	0	0	9
22	National Institute of Technology - Hamirpur	0	8	0	1	9
23	South Asian University	0	8	0	1	9
24	A C Joshi Library - Panjab University	0	7	0	1	8
25	Others (88 Universities)	5	205	0	16	226
	<b>Total Requested</b>	<b>15</b>	<b>739</b>	<b>0</b>	<b>24</b>	<b>778</b>

§DDR-DU: Document Delivery Request-Delay,  
+DDR-P: Document Delivery Request - Pending,

\*DDR-F: Document Delivery Request – Fulfilled  
#DDR-UF: Document Delivery Request – Unfulfilled

**Table 17: Document Delivery Requests made by Different Universities**

During the period under report, a total number of 2529 requests were received by the 26 ILL Centres and by the INFLIBNET from all the member universities, out of which 1607 were fulfilled as per the details given below in Table 18.

Sl. No.	University Name	DDR-DU	DDR-F	DDR-P	DDR-UF	Total	% of Fulfilled
1	Aligarh Muslim University	4	3	0	26	33	9.09
2	Annamalai University	0	20	0	7	27	74.07
3	Assam University	0	0	5	0	5	0.00
4	Banaras Hindu University	0	91	0	2	93	97.85
5	Banasthali University	3	68	0	14	85	80.00
6	Bangalore University	0	1	94	0	95	1.05



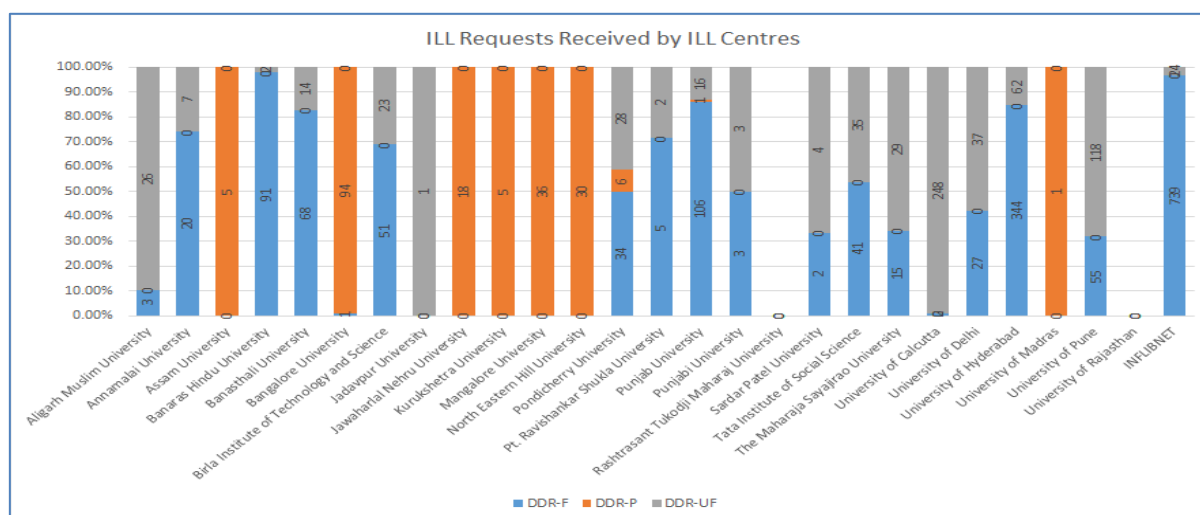
7	Birla Institute of Technology and Science	0	51	0	23	74	68.92
8	Jadavpur University	0	0	0	1	1	0.00
9	Jawaharlal Nehru University	0	0	18	0	18	0.00
10	Kurukshetra University	0	0	5	0	5	0.00
11	Mangalore University	0	0	36	0	36	0.00
12	North Eastern Hill University	0	0	30	0	30	0.00
13	Pondicherry University	0	34	6	28	68	50.00
14	Pt. Ravishankar Shukla University	0	5	0	2	7	71.43
15	Panjab University	0	106	1	16	123	86.18
16	Punjabi University	0	3	0	3	6	50.00
17	Rashtrasant Tukodji Maharaj University	0	0	0	0	0	NA
18	Sardar Patel University	0	2	0	4	6	33.33
19	Tata Institute of Social Science	0	41	0	35	76	53.95
20	The Maharaja Sayajirao University	0	15	0	29	44	34.09
21	University of Calcutta	0	2	0	248	250	0.80
22	University of Delhi	0	27	0	37	64	42.19
23	University of Hyderabad	16	344	0	62	422	81.52
24	University of Madras	0	0	1	0	1	0.00
25	University of Pune	9	55	0	118	182	30.22
26	University of Rajasthan	0	0	0	0	0	NA
27	INFLIBNET	15	739	0	24	778	94.99
	<b>Total</b>	<b>47</b>	<b>1607</b>	<b>196</b>	<b>679</b>	<b>2529</b>	<b>63.54</b>

\$DDR-DU: Document Delivery Request-Delay,  
+DDR-P: Document Delivery Request - Pending,

\*DDR-F: Document Delivery Request – Fulfilled  
#DDR-UF: Document Delivery Request – Unfulfilled

**Table 18: Document Delivery Requests Received by 26 ILL Centres and INFLIBNET Centre**

Figure 27 depicts comparison between DDR-Fulfilled and total number of DDR received by each ILL Centre.



**Fig. 27: Document Delivery Requests Received (DDR-R) Vs Full-filled (DDR-F) by 26 ILL Centres**

## 7.2. N-LIST (National Library and Information Services Infrastructure for Scholarly Content)

The Project entitled "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)", graduated as a regular scheme of UGC under UGC-INFONET Digital Library Consortium as college component, is merged into e-Shodh Sindhu: Consortia for Higher Education E-Resources. The NLIST, launched in 2010 as a project funded by the Ministry of Human Resource Development under its National Mission on Education through ICT, was jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi upto FY 2012-13. The NLIST project, uses a highly innovative access model to provide access to 6,318 e-journals and 31,39,309 e-books to all Govt. Govt.-aided through a proxy server installed at the INFLIBNET Centre. Electronic resources subscribed under NLIST project covers e-resources on all relevant areas taught in colleges such as arts & humanities, social sciences, physical and chemical sciences, life sciences, computer sciences, political sciences, library and information science, law, business, mathematics, statistics, etc.

### 7.2.1. Current Status

The NLIST, college component of e-Shodh Sindhu has registered a total number of 5,563 colleges as on March 31, 2017 including 4,234 eligible colleges that are already getting access to resources subscribed under the N-LIST programme. Log-in IDs and passwords have been issued to more than 9,57,608 faculty members, students and researchers after obtaining list of authorized users from these 4,234 registered colleges.

### 7.2.2. Number of Colleges

Figure 28 given below reflects year wise increase in number of colleges who joined the NLIST Programme during the year 2010 to 2017. The number of colleges that have joined the NLIST Programme has increased from 1069 in 2010 to 4234 in 2017. Due to changes in eligibility criteria of membership, there has been slight decrease in total number of registered colleges in 2017.

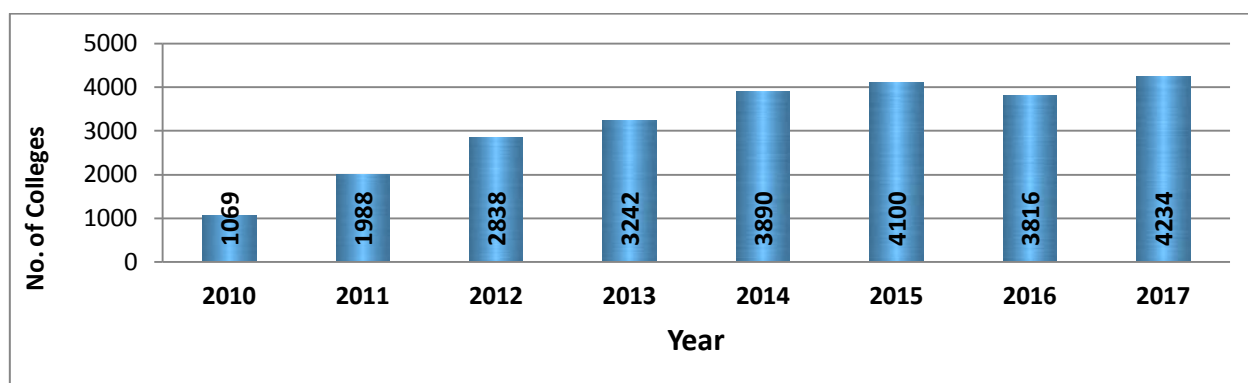


Fig. 28: Year wise Registration of Colleges

### 7.2.3. Electronic Resources Subscribed under the N-LIST Programme

#### 7.2.3.1. Full-text Electronic Resources

Full-text electronic resources contain complete articles along with their bibliographic details. The N-LIST programme subscribes to full-text e-resources from scholarly societies, commercial publishers and aggregators like American Institute of Physics, American Physical Society, Oxford University Press, Royal Society of Chemistry, Cambridge University Press, H W Wilson, etc. All full-text resources subscribed under the N-LIST programme contain electronic journals as revealed in the Table 19 given below.

Sl. No.	E-resources	Publishing Country	No. of Journals	Backfiles from
1	American Institute of Physics	USA	18	Ten yrs.
2	Annual Reviews	USA	33	Ten yrs.
3	Cambridge University Press	UK	224	Ten yrs.
4	Economic and Political Weekly (EPW)	India	1	1966+
5	Indian Journals	India	186	2007+
6	Institute of Physics	UK	46	Vol. 1+
7	JSTOR	USA	2500	Vol. 1+
8	Oxford University Press	UK	206	1996+
9	Royal Society of Chemistry	UK	29	Ten yrs.
10	H. W. Wilson	USA	3,075	1982+
	<b>Total</b>		<b>6,318</b>	

Table 19: Full-text Electronic Resources

#### 7.2.3.2. Electronic Books

Electronic books are either subscribed on annual subscription basis as in case of ebrary or are purchased on one-time payment and perpetual access basis as in case of all remaining publishers listed below. Total number of electronic books accessible to colleges under N-LIST programme exceeds 1,61,909 as revealed below in the Table 20:

Sl. No	E-book Name	Available Books	Purchased Books	Access Available
1	E-brary	1,25,000+	1,25,000+	1,25,000+
2	Cambridge Books Online	13,966	1,800	6,000+
3	EBSCO Host-Net Library	4,436	936	4,436
4	Hindustan Book Agency	65	65	65

5	Institute of South East Asian Studies(ISEAS) Books	382	382	382
6	Oxford Scholarship Online	6,577	1,402	1,402
7	Springer eBooks	50,208	2,300	18,000+
8	Taylor & Francis eBooks	40,000+	1,800	4,500+
9	Mylibrary-McGraw Hill	2,50,000	1,124	1,124
10	Sage Publication eBooks	2,700	1,000	1,000
11	Open Access (Net Library)		3,500	
	<b>Total</b>	<b>4,93,334</b>	<b>1,39,309</b>	<b>1,61,909</b>

**Table 20: Electronic Book**

#### **7.2.3.3. E-Resources Available through National Subscription**

Access to South Asia Archives (SAA) and World E-Book Library (WEL), subscribed by eShodh Sindhu on behalf of National Digital Library (NDL), are made available to member colleges of NLIST Programme through proxy server set up at INFLIBNET Centre. The World e-Book Library including 3 million (30,00,000) primary sources spanning past 1,000 years of world history in more than 320 different languages. The South Asia Archive contains more than 4.5 million pages spanning the period of 18<sup>th</sup> and mid-20<sup>th</sup> century from documents across the Indian subcontinent, including India, Pakistan, Burma, Afghanistan and Bangladesh as shown in Table 21.

Sl. No.	Name of Collection	No. of Titles
1	World eBook Library	30,00,000
2	South Asia Archive	4.5 million pages

**Table 21: E-Resources Available through National Subscription**

#### **7.2.4. Implementation Methodology**

E-resources subscribed under e-Shodh Sindhu are being made accessible to universities and CFTIs on their respective IPs. However, since most of the colleges registered under the NLIST Programme do not have static IP addresses, access to e-resources based on IP filtering cannot be implemented for colleges. Moreover, most of the publishers were reluctant to handle authentication of large number of users from thousands of colleges who had to be given freedom to enrol themselves for the N-LIST Programme at anytime during the year as well as during the project period.

As such, the INFLIBNET Centre has implemented EZ-Proxy from OCLC for authenticating registered. Individual users from colleges can directly access and download articles from journals and chapters from books directly from publisher's website once they are duly authenticated as authorized users through the authentication mechanism deployed at the INFLIBNET Centre. Moreover, INFLIBNET Centre has also developed shibboleth based Access Management Federation (INFED) for providing seamless access to e-resources subscribed through NLIST Programme from

anywhere, anytime. The INFED has already made agreements with 9 publishers for this service. More publishers will be joining INFED in near future.

#### 7.2.5. Cost-effectiveness of the N-LIST Programme

The cost-effectiveness of N-LIST programme can be judged by factors such as number of beneficiary colleges, full-time potential users in these colleges, cost of e-resources subscribed and expenditure on e-resources per college and per potential user. The N-LIST programme is a cost-effective proposition because of large number of colleges with larger number of potential users and potential for growth. These factors are discussed below in detail.

#### 7.2.6. Analysis of Usage

It is important to ensure that the resources offered to the colleges are being used optimally and steps are taken to promote usage of e-resources wherever required. A brief analysis of usage of e-resources by the beneficiary college is given below.

##### 7.2.6.1. Publisher-wise Usage of E-journals

Figure 29, given below, shows number of articles downloaded by the users from different publishers during the financial year 2016-2017. It can be observed that JSTOR is highly used resource followed by Indian Journals and H. W. Wilson. The usage of EPW could not be analysed due to lack of usage data from the publishers.

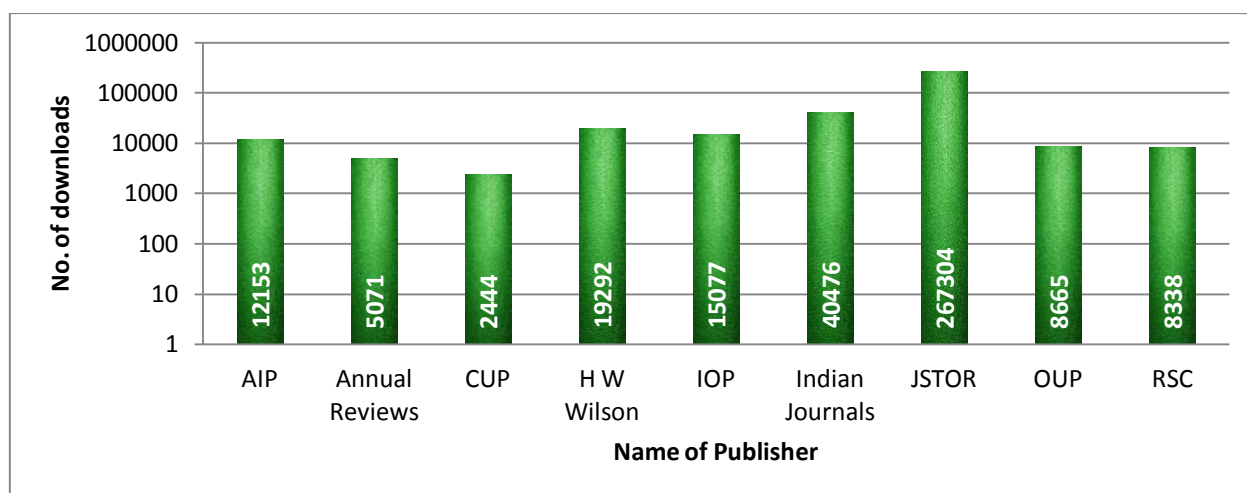


Fig.29: Publisher wise Usage of E-Journals 2016-2017

##### 7.2.6.2. Publisher-wise Usage of E-Books

Figure 30, given below, shows publisher wise usage of ebooks during the financial year 2016 - 2017. It can be observed that Ebrary is highly used resource followed by Springer e-books and Sage e-books.

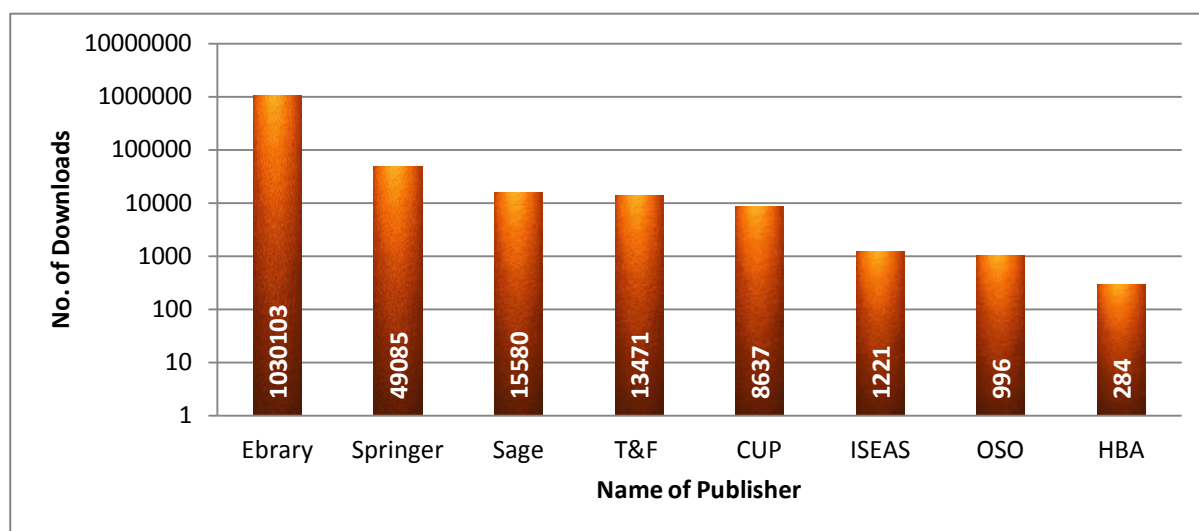


Fig.30: Publisher-wise Usage of E-Books 2016-2017

#### 7.2.6.3. Month wise Usage of E-Resources

Figure 31 given below reflects month wise usage of e-journals and e-books for the period April 2016 to March 2017.

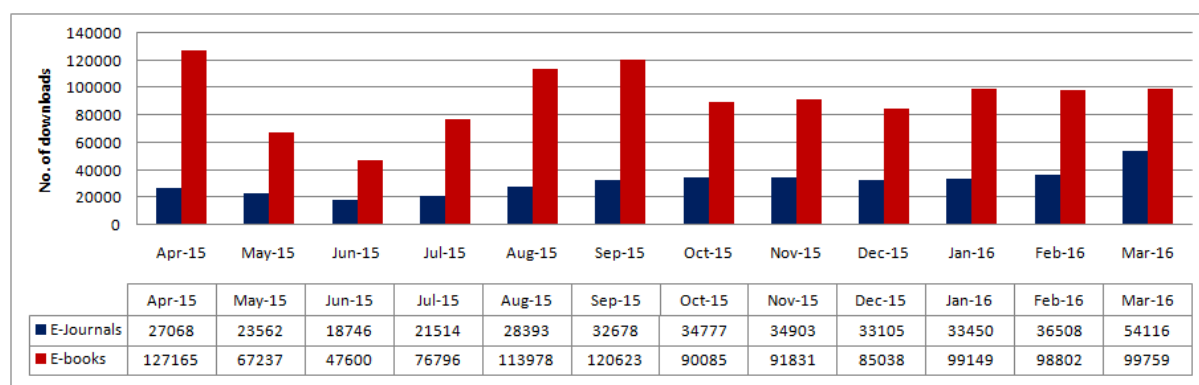


Fig.31: Month-wise Usage of E-resources for 2016-2017

#### 7.2.6.4. Month-wise Unique Visitors

Since the access of e-resources is provided through a proxy server set up at the INFLIBNET Centre, it is difficult to analyse usage of e-resources by a given college. The Centre is using AW stats, a powerful open source tool that generates statistics from the local proxy server. The Centre has used this tool to analyze log files of N-LIST Proxy Server. Figure 32 given below shows month wise unique visitors to N-LIST resources. The graph shows average 17,928 monthly users from 4,234 member colleges. There is 29% increase in average monthly users comparing to 2016-2017.

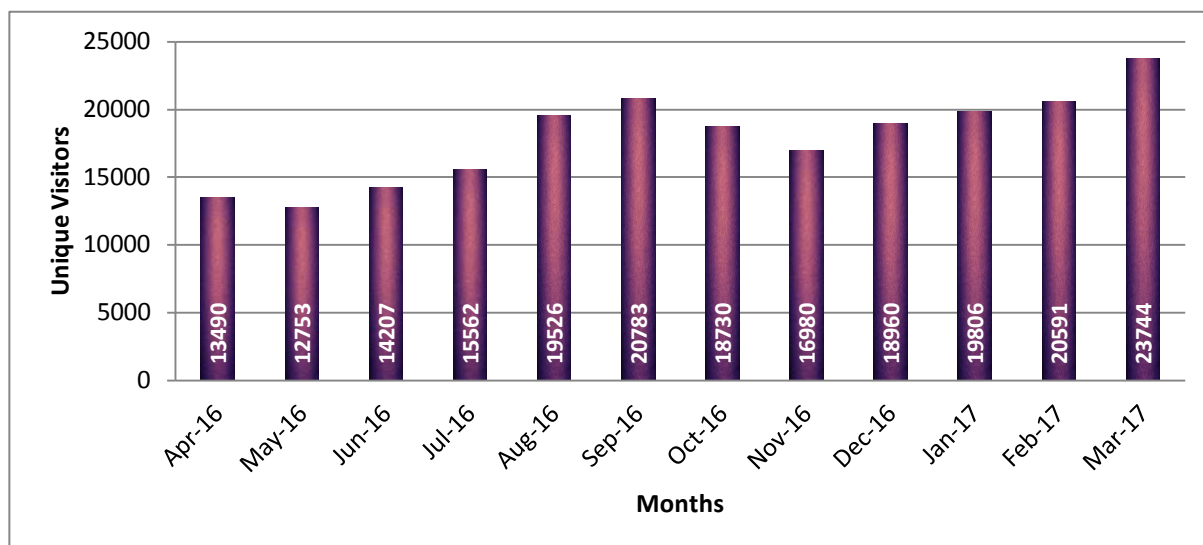


Fig. 32: Month-wise Unique Visitors of the N-LIST Programme 2016 –2017

#### 7.2.6.5. Month-wise Pages Viewed

A total number of 1,08,86,461 pages were viewed by the users in member colleges from the subscribed e-resources. Figure 33 given below depicts month wise number of pages viewed by the users in member colleges.

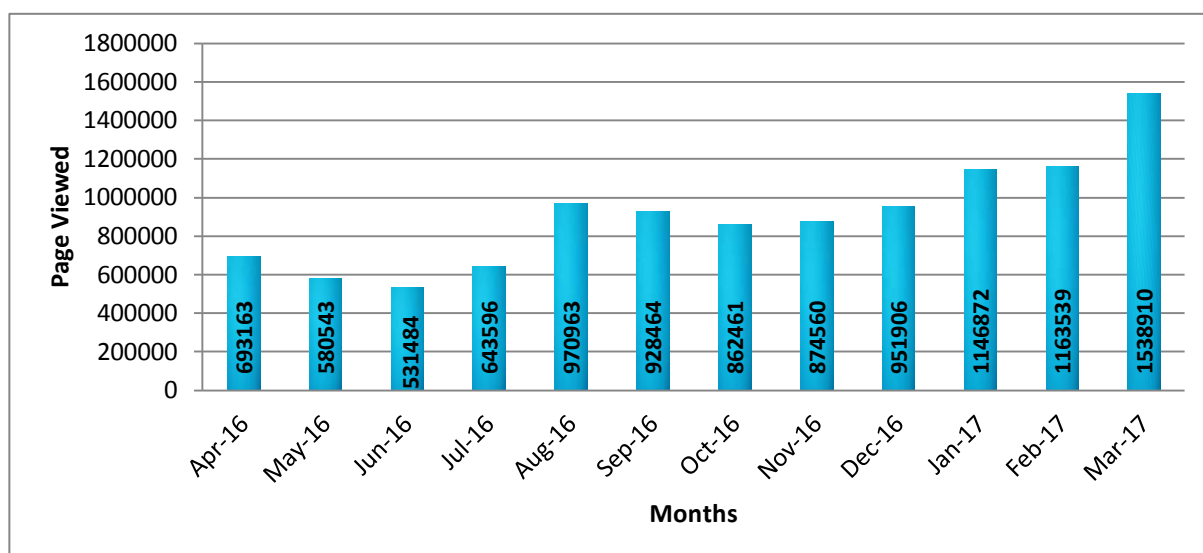


Fig. 33: Month-wise Pages Viewed 2016 -2017

#### 7.2.7. Economics of N-LIST Programme

Cost recovery, cost avoidance and (lower) rates of subscription are factors that determine economic viability and cost-effectiveness of consortia-based subscription to e-resources. These factors are discussed below briefly.

### 7.2.7.1. Cost Recovery

The recovery of cost incurred on e-resources subscribed through the N-LIST Programme can be judged in terms of intensity of use of resources. The cost recovery is calculated on the presumption that if the electronic resources were not available through the N-LIST programme, articles downloaded from these resources by the member colleges would have been sourced on inter-library loan or through document delivery services at a cost of US \$ 15.00 per article. (Average cost of article taken from a study conducted by the American Research Libraries (ARL). As is evident from the figure 34 given below that the N-LIST Programme has recovered the cost incurred on subscription for all e-resources.

The total cost that has been recovered for the year 2016 amounts to Rs. 147.89 crores as against the total expenditure of Rs. 7.93 crores with Rs. 139.96 crores as the cost of articles downloaded in excess.

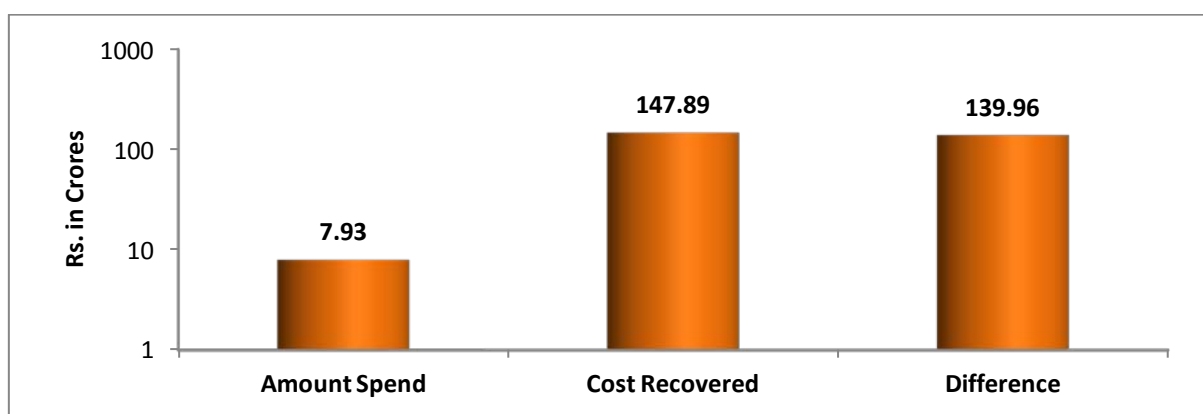


Fig.34: Cost Recovery Factor of e-Journals Subscribed under the N-LIST Programme for 2016

### 7.2.7.2. Lower Rates of Subscription

The N-LIST programme has used a highly innovative pricing model for subscription to e-resources wherein one subscription (equivalent to one subscription paid for a university under e-Shodh Sindhu) is paid for a set of 200 colleges given the fact that extending the prevalent pricing models to college would have been highly expensive, unaffordable and impractical for the college component of the N-LIST Programme. As such, a total number of 19 subscriptions (on prorated basis) were paid for 3,800 colleges during the financial year under report.

### 7.2.7.3. Cost Avoidance

Cost avoidance is calculated in terms of difference in cost paid by the N-LIST programme for colleges and list price of e-resources including e-journals and e-books. Figure 35 given below shows that there is a notional savings of Rs. 13,318.70 crores considering the fact that the same sets of resources on list price would have cost Rs. 13,326.95 crores as against Rs. 8.26 crores spent under the N-LIST programme for the year 2016.





Fig. 35: Cost Avoidance 2016

#### 7.2.7.4. Annual Increase in Rates of Subscription

Annual increase in rates of subscription is restricted from 0 to 5% as against the usual increase in price of e-resources from 10 to 15%.

#### 7.2.8. Average Cost of E-resources Subscribed under the N-LIST Programme

##### 7.2.8.1. Average Cost of Journals per College

The N-LIST programme subscribes to a total number of 6,318 journals for its member colleges. The cost of subscription to e-resources comes down with increase in number of colleges. As such, average cost of a single journal per college computes to Rs. 2.43 in the year 2016 when only 4,234 colleges were enrolled for the scheme as shown in Table 22.

E-resources	No. of colleges	No. Res	Price per College per Title in Rs.
AIP	2000	18	288.61
Annual Reviews	3800	33	36.31
CUP	3800	224	7.11
EPW	3800	1	850.00
Indian Journals	3800	186	9.58
IOP	2000	46	40.65
JSTOR	3800	2500	0.36
OUP	3800	206	6.97
RSC	2000	29	98.03
H.W. Wilson	3800	3075	0.77
<b>Total</b>	<b>3800</b>	<b>6318</b>	<b>2.43</b>

Table 22: Average Cost of Journals per College

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### 7.2.8.2. Average Cost of E-books

Most of the e-books under the N-LIST programme had already been purchased for all existing 4,233 colleges on “one-time purchase basis or perpetual access basis”. In 2016-2017, only Ebrary was subscribed on annual subscription basis for 3800 colleges. Average cost per book per college of Ebrary was Rs. 0.05 as shown in Table 23.

E-resources	No. of colleges	No. Res	Price per College per Title in Rs.
Ebrary	3800	125000	0.05

Table 23: Average Cost of E-books per College per Title

### 7.2.9. Honours and Awards

The N-LIST Programme was honoured with three awards in the years 2010 and 2011, namely i) Jury Choice Award e-INDIA 2010; ii) The Manthan South Asia Award 2010 in Digital Learning Category for the year 2010; and iii) Skoch Digital Inclusion Awards 2011 in Technology in Education Category for the N-LIST project. Dr Jagdish Arora, Director and Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre received the Skoch Digital Inclusion Awards 2011 award from Shri N C Saxena, Member, National Advisory Council & Distinguished Fellow, Skoch Development Foundation on 1 September 2011 during Skoch Digital Inclusion Award ceremony at Delhi.

## 8. e-Learning and e-Content Development

### 8.1. e-PG Pathshala (<http://epgp.inflibnet.ac.in/>)

Jagdish Arora, Director  
Abhishek Kumar, Scientist C (CS)  
Kannan P., Scientist B (LS)  
Shweta Brahmhatt, Project Officer (CS)  
Atul Patel, Project Assistant (LS)

e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The development & maintenance of portal and administrative responsibilities are assigned to INFLIBNET Centre. The content and its quality being the key component of education system, high quality, curriculum-based, interactive e-content in 77 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages are being developed by the subject experts (professor, associate professor, assistant professor or equivalent) working in universities (central, state, deemed) and other R & D institutes across the country. Every subject has a team of principal investigator, paper coordinators, content writers, content reviewers and multimedia team. A

dedicated portal (<http://epgp.inflibnet.ac.in/>), to host the content, is available in open access as shown in Figure 36.



Fig. 36: Website of e-PG Pathshala

The UGC has constituted a Standing Committee for e-PG Pathshala under the Chairmanship of Prof. M. Anandakrishnan, Chairman, Governing Board, IIT Kanpur on e-content creation to monitor and coordinate the activity of content creation in a most effective and efficient manner.

### 8.1.1. e-PG Pathshala Portal

Figure 37 depicts the home page of e-PG Pathshala which displays all subjects along with relevant information such as team, syllabus, usage statistics and quiz for each subject, etc.

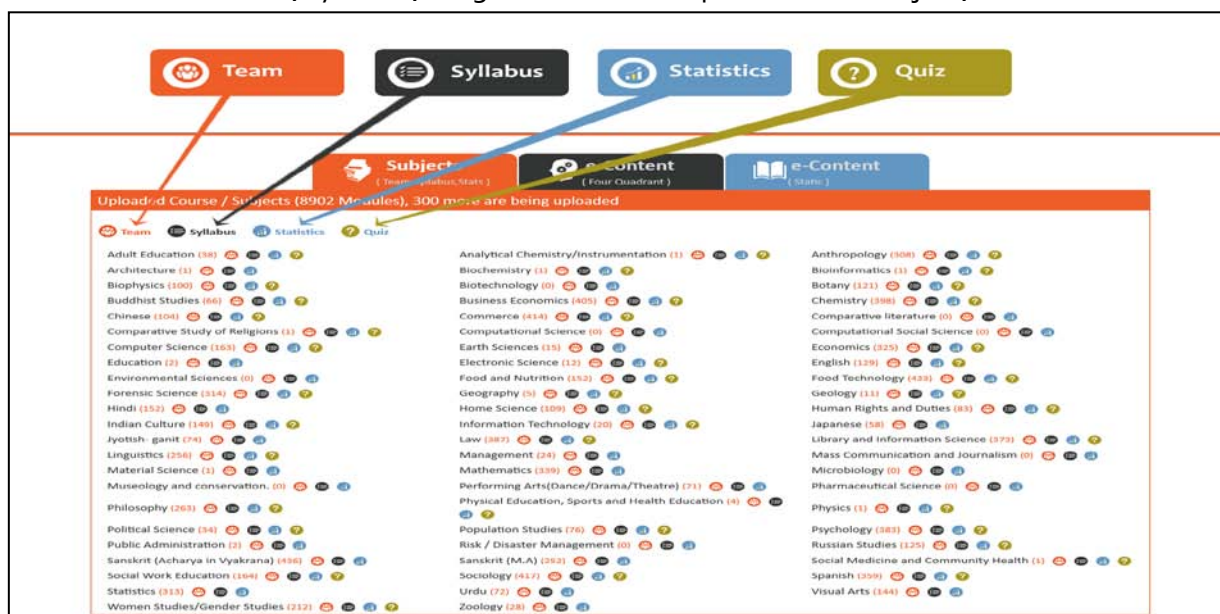


Fig. 37: Uploaded Subjects along with its Team, Syllabus, Usage Statistics and Quiz

On clicking of any given subject the list of papers covers under that subject is displayed as shown in Figure 38. Click on any paper to select modules available under it.

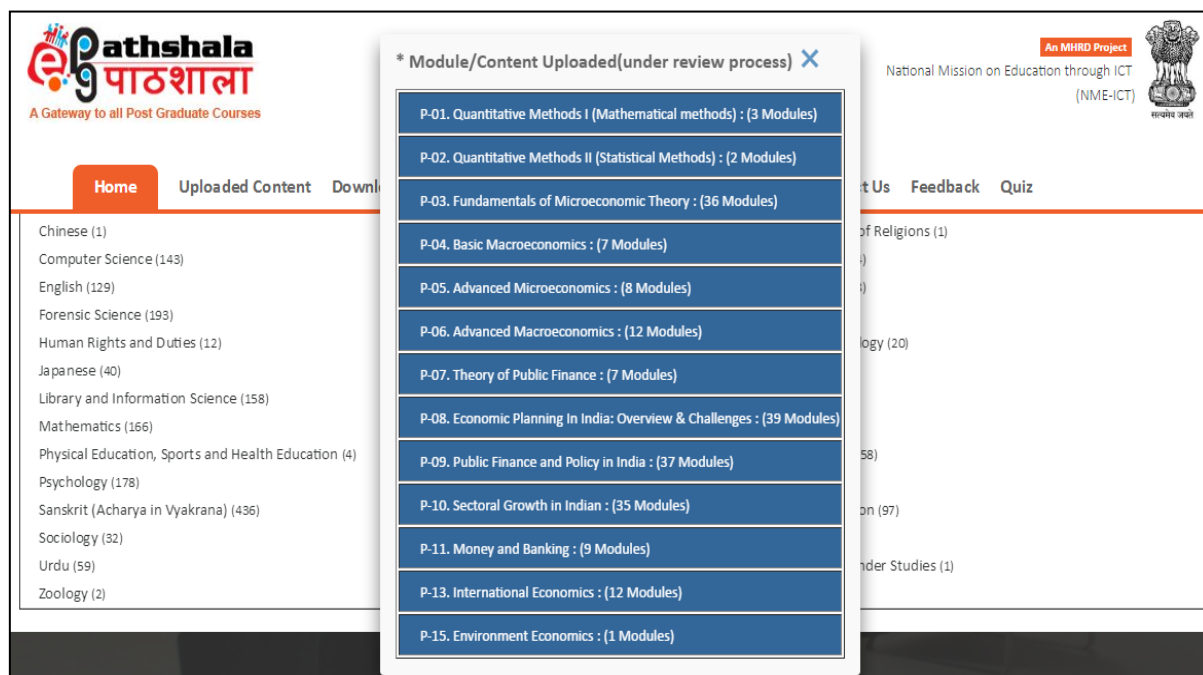


Fig. 38: List of Papers Uploaded under the Subject

Each modules consists of four quadrants that are displayed under four different tabs namely e-Text, Self-Learning, Learn more and Self- Assessment as shown in Figure 39.



Fig. 39: Four Quadrants of a Module

### 8.1.2. e-PG Pathshala Management System (e-PMS)

The e-PMS provides a platform to all stakeholders of e-content development team to Interact and display current status of development for each subject, as shown in Figure 40. The system provides the following major features:

- Profile creation of each team members;
- Management of paper/syllabus creation and assignment to respective team members of each paper;
- Updation of work progress made for each module;
- Report generation; and
- Download link for Minutes of Meetings (Standing Committee and Sub Committee of e-PGP) and other important documents.

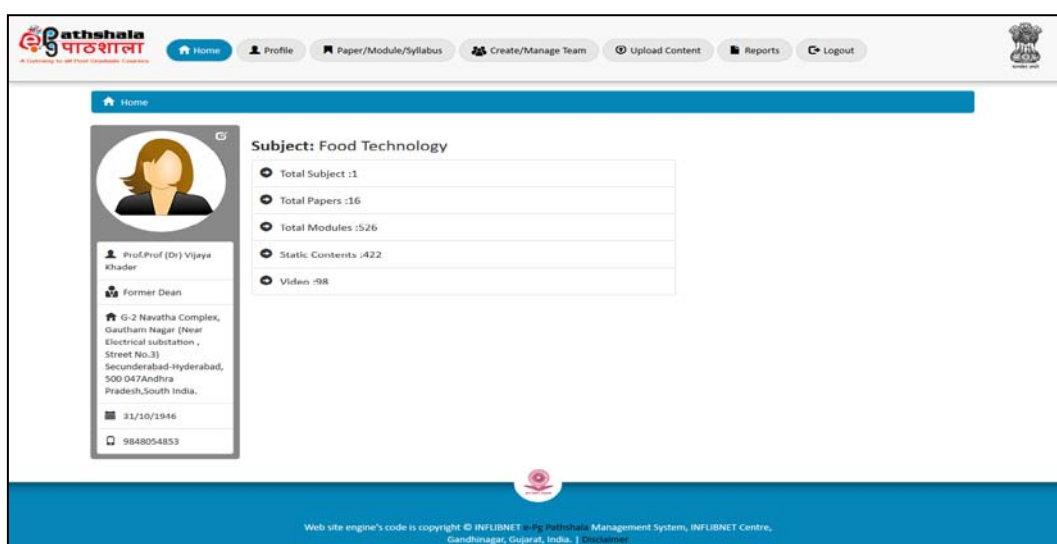


Fig. 40: e-PG Pathshala Management System (e-PMS)

### 8.1.3. Content Development

During the period under report, 12,190 e-text and 11,418 self-learning modules were developed as per the details given below in Table 24.

Sl. No.	Work	Progress
1	No. of PI who contributed content (partial)	67
2	No. of Paper (course) for which content is being developed	724
3	No. of Static content uploaded on server	12190
4	No. of video / self-Learning uploaded	11418
5	No. of Institute / Universities involved	40
6	No. of Academic experts	3000+

Table 24: Details of Content Development under e-PG Pathshala

8.2. Vidya-Mitra: Integrated e-Content Portal (<http://content.inflibnet.ac.in/> or <http://eacharya.inflibnet.ac.in/>)

Jagdish Arora, Director  
Yatrik Patel, Scientist D (CS)  
Abhishek Kumar, Scientist C (CS)  
Pallavi, Project Officer (LS)  
Priya Varu, Project Officer (CS)  
Darshan Modi, Project Associate (CS)  
Rajeshri Makwana, Project Associate (LS)

A portal to host all e-content project, developed / funded under the National Mission of Education through ICT is developed by the INFLIBNET Centre under the initiative called “Vidya-Mitra: Integrated e-Content Portal”. There are more than 70 projects on e-content under NME-ICT which are developed/ being developed in various subject disciplines (Science, Arts, Engineering, Social Science, etc.) through various Indian institutes/universities/colleges. A separate website/portal called Vidya-Mitra: Integrated e-Content Portal is being developed as shown in Figure 41.

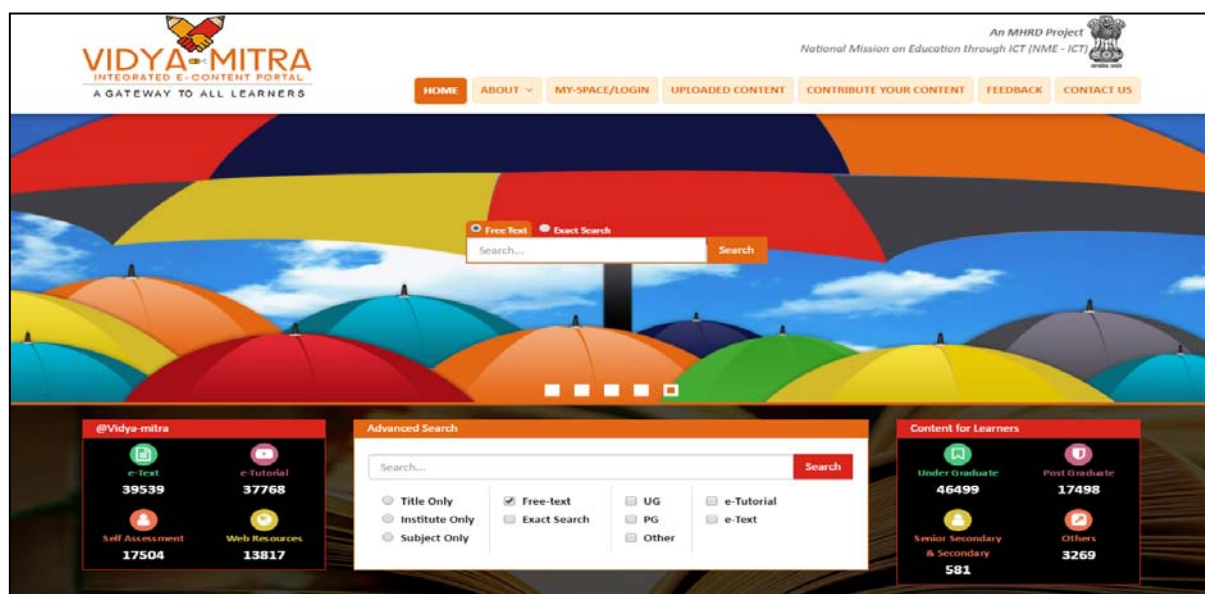


Fig. 41: Website of Vidya-Mitra: Integrated e-Content Portal

The portal provides facility to search and browse (Title, Institute, Subject, Syllabus, etc) all e-content hosted on the portal wherein a learner can easily access the desired material including audio/video learning material, textual material, multimedia enriched materials, etc. through a single interface.

### 8.2.1. Features of Search Result

As shown in Figure 42, Search Result page facilitates learners to browse the desired content on the basis of different filter i.e. Document Type, Target Learners, Institute-wise, project-wise, etc. Moreover, features of learning experience such as “Learner’s Corner / My Account” incorporated.



Mobile App for Android and iPhone users has also been developed and is available on Google Play Store and Apple Store. Syllabus-based access is being incorporated as shown in Figure 43.

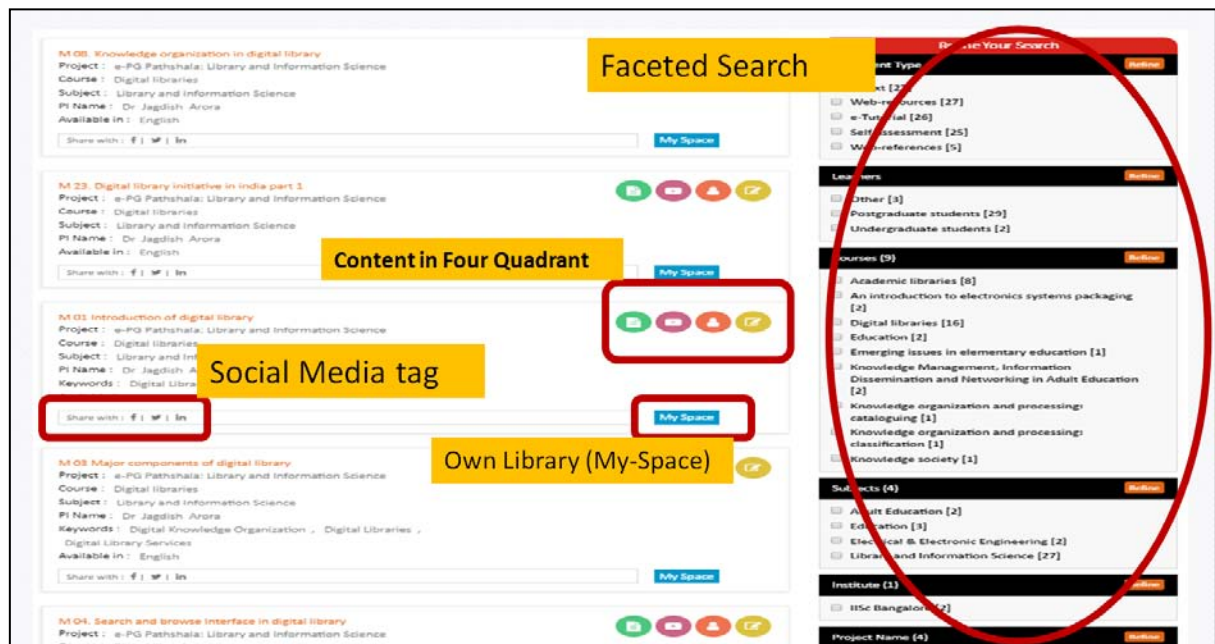


Fig. 42: Screenshot of Search Result

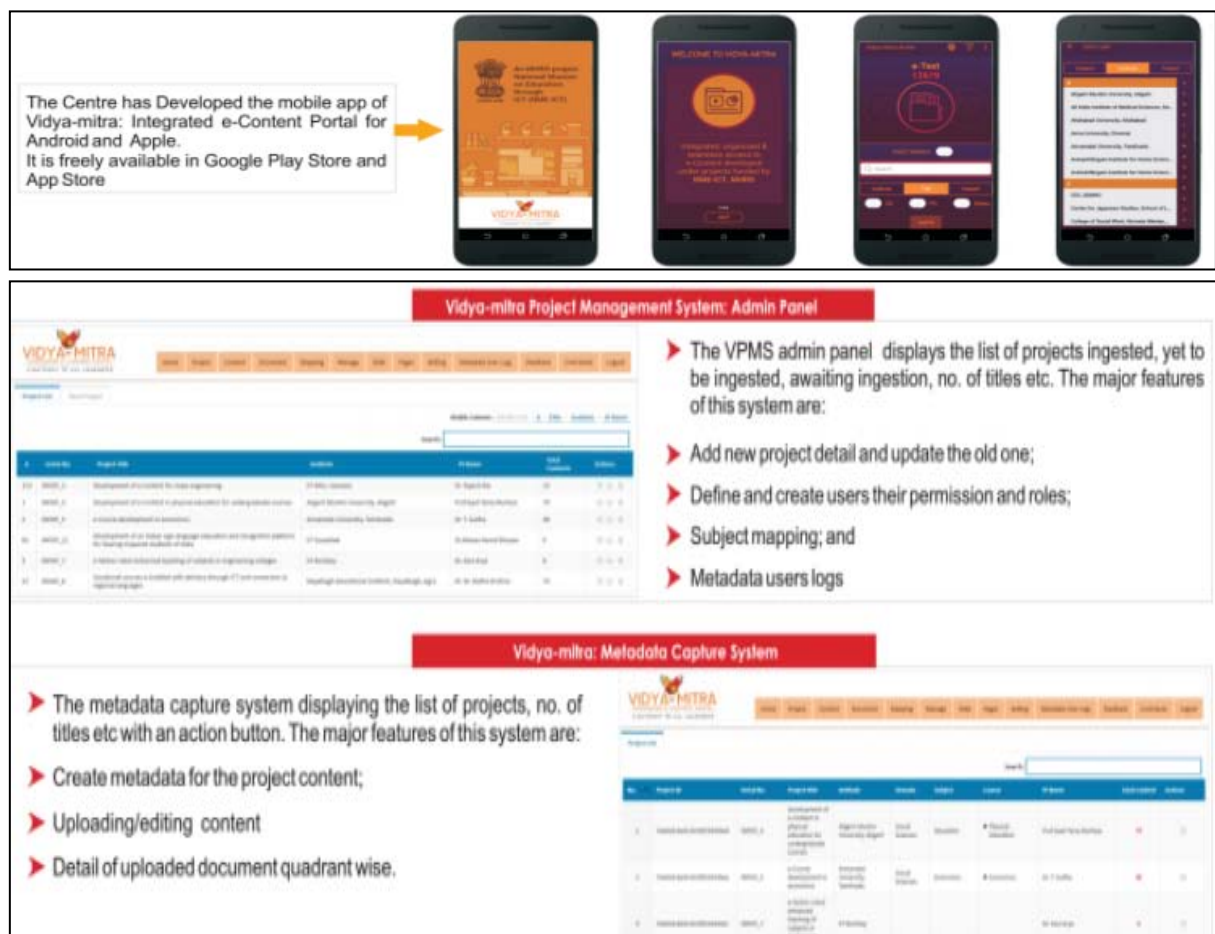


Fig 43: Mobile App and Admin Panel

The Centre has acquired content from more than 30 principal investigators given below in Table 25, who have developed content with funding from NME-ICT.

Sl. no	Project Title	Project Institute
1	Consortium for Educational Communication: UG Content	CEC, New Delhi
2	ePG Pathshala: PG Content	UGC
3	NPTEL: Engineering Content	Joint initiative of IITs and IISc
4	Content Generation for E-learning on Open Source VLSI and Embedded System	NIST, Berhampur
5	Creation of E-contents on Fermentation Technology	IIT Gandhinagar & Christ College, Rajkot
6	Design and Development of Interactive e-Content for the Subject Digital Image Processing and Machine Vision	IIT BHU, Varanasi
7	Design and Development of Next Generation e-Content for Software Reuse Design Patterns and Frameworks	IIT BHU, Varanasi
8	Developing ICT based Pedagogical Practices for Management Accounting	IIT Gandhinagar & Christ College, Rajkot
9	Developing the e-Content for Training and Development Modules for Managerial & Non-managerial Personnel	ISM Dhanbad
10	Development of E-Content for Fashion Design and Technology	NIFT, Chennai
11	Development of E-content for Slope Engineering	IIT BHU, Varanasi
12	Development of E-content for Under-Graduate Student in Science in the area of Chemical Process Industries	Natubhai V. Patel College of Pure and Applied Sciences, Vallabh Vidyanagar
13	Development of e-Content in Physical Education for Undergraduate and Postgraduate Courses	Aligarh Muslim University, Aligarh
14	Development of e-Content on Ancient Indian Metallurgy & Modern Process Metallurgy	IIT BHU, Varanasi
15	Development of e-Contents for Foundation Course on Pharmaceutical Microbiology	IIT, Gandhinagar & Saurashtra University
16	Development of e-Contents on Foundation Course on Analytical Biochemistry and Separation Techniques	IIT Gandhinagar & Christ College, Rajkot
17	Development of Simplified Conceptual Content for Self-teaching on Advanced Engineering Topics	IIT Madras
18	e-Book on Material Science & Engineering	IIT Kanpur



19	e-Content Development of Marketing Management	Bhavnagar University, Bhavnagar
20	e-Content for Under and Post Graduate Courses in English Language and Literature	Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar
21	e-Content for Undergraduate Students in Biochemistry	Indian Institute of Technology, Gandhinagar & Navrachna University
22	e-Content for Video Processing	IIT BHU, Varanasi
23	e-Content for Zoology Experiments	V P & RPTP Science College, Vallabh Vidyanagar
24	e-Content Generation and Delivery Management for Student – Centric Learning	NIT, Warangal
25	e-Content Generation for Adult and Non-Formal Education Programme	The Maharaja Sayajirao University of Baroda, Vadodara
26	e-Content on Theory and Practice of Literary Translation	IIT, Gandhinagar & N V Patel College of Pure and Applied Sciences, Vallabh Vidyanagar
27	E-Course Development in Economics	Annamalai University, Tamil Nadu
28	Mathematical Sciences without Walls	Institute of Mathematical Science, Chennai
29	Next Generation e-Content for High Performance Computing	IIT BHU, Varanasi
30	Next Generation e-Content for Numerical Methods and its Applications	NIT, Patna
31	Quantum and Nano Computing Virtual Centre	DEI University, Dayalbagh, Agra
32	e-Content and Video in the Area of Manufacturing Technology for UG and PG Students and Industry Area	IIT BHU, Varanasi
33	UG Content Generation in Rural Development ,Proficiency in Indian Music, Indian Culture Journalism and Mass Communication and Drawing & Panting	DEI University, Dayalbagh Agra
34	Vocational Courses E-enabled with Delivery through ICT and Conversion to Regional Languages	DEI University, Dayalbagh, Agra
35	eGyanKosh	IGNOU
36	National Institute of Open Schooling (NIOS)	NIOS

37	National Council of Educational Research and Training (NCERT)	NCERT
38	Digital Library	

Table 25: Contents Developed by PIs

### 8.2.2. Content Development

During the year under report, 32,451 e-text and 32,385 video modules were uploaded on Vidya-Mitra Portal as per details given in Table 26.

Sl. No.	Work	Progress
1	No. of Modules (e-text)	32,451
2	No. of Modules (video)	32,385
3	No. of Modules (quizzes)	5,164
4	No. of Modules (Learn More)	7,347

Table 26: Details of Content Development under Vidya-Mitra

## 9. Website Development & Maintenance

The Centre uses web technology to provide organized and structured access to its services and resources to the academic community through the Centre's Website as well as through websites of its individual services and products. The Centre's Website is designed to work as an integrated interface for all services and resources accessible to the academic community in the universities and colleges. The Web Development team has especially been set-up for designing innovative web-based interfaces for effective and efficient delivery of services using the latest web-based tools and technologies. The Group undertakes all activities related to selection, organisation and presentation of services and resources in a meaningful way for the benefit of the user community.

### Technology Used:

**Development Tools:** PHP, HTML, DTML, JSP, JavaScript

**Database:** MySQL Server, Postgres SQL Server and MS SQL Server

**Operating Systems:** Red Hat Linux Enterprise Server 4.0, Fedora 8.0/9.0

**Open Source Software:** phpChat, MediaWiki, phpBB, Dspace and WordPress

### 9.1. INFLIBNET Centre's Main Website (<http://www.inflibnet.ac.in/>)

Ashok Kumar Rai, Scientist D (CS)

The Centre maintains comprehensive Website in English and Hindi as shown in Figure 44. Several new additions were made to the new version of the Institute's website. A technology called "Real Simple Syndication (RSS)" is used to facilitate users and bloggers to harvest recent updates from the Centre's website. Web 2.0 features and functionalities, including Wiki, Blog, Chat and Discussion

Forum, RSS feed, etc. were incorporated in the Website. The new website of the Centre has the following main features:

- » Powerful search and browse interface;
- » Dynamic calendar;
- » Recent and new events;
- » Download forms and documents;
- » Online feedback mechanism;
- » Mailing list, video gallery, webmail, etc.;
- » Latest news, jobs, tenders, etc.; and
- » Wiki, weblog, RSS feeds and online chat.



Fig. 44: INFLIBNET's Website

## 9.2. Intranet (<http://172.16.16.11/intranet/>; for INFLIBNET Staff Only)

A separate Intranet website is maintained for the internal staff of the Centre as shown in Figure 45. The website provides detailed information to scientists and staff of the Centre to fulfil their following requirement:

- » Rules and regulations of the Centre;
- » MoA;
- » All circulars;
- » All types of forms in fillable pdf format;
- » Committees and their constitutions;
- » List of holidays; and
- » Presentations on various activities and services of the Centre.

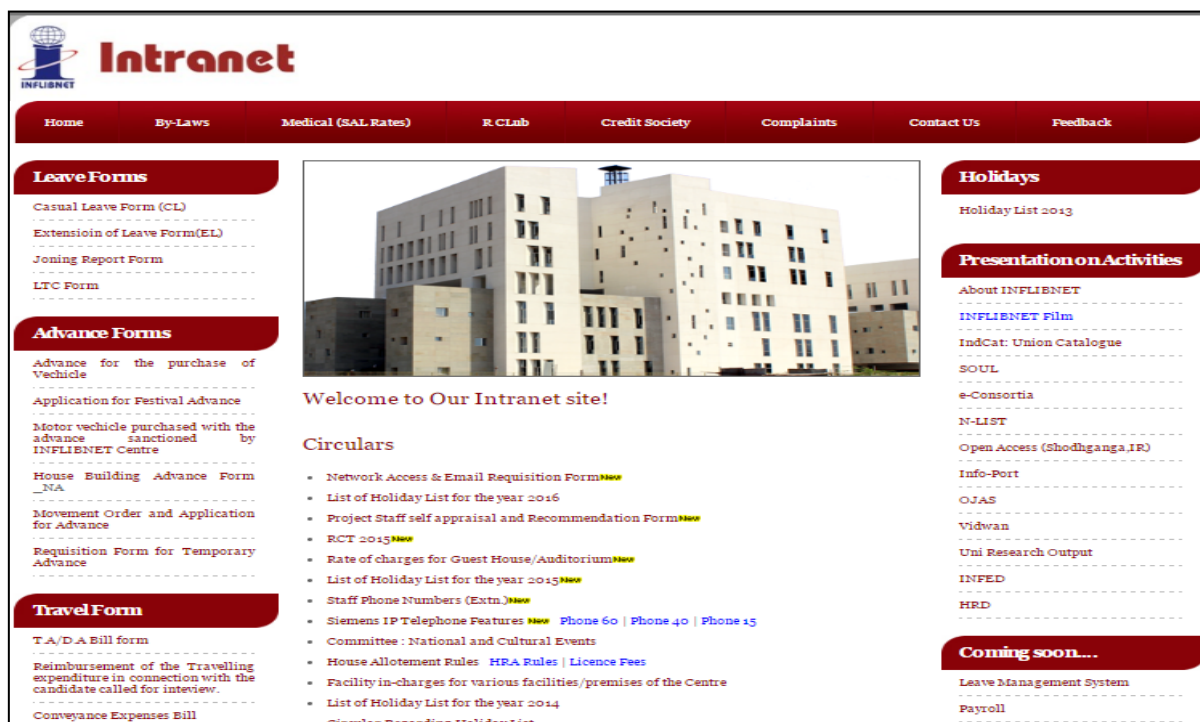


Fig. 45: INTRANET Website

### 9.3. Implementation of Web 2.0 Technologies at the Centre

The INFLIBNET Centre has entered into the world of Web 2.0 and Library 2.0 with implementation of interactive and collaborative technological tools. All the Web 2.0 tools used are open source software. Web 2.0/Library 2.0 technologies implemented at INFLIBNET Centre includes

- ▶▶ Chat (<http://www.inflibnet.ac.in/chat/>);
- ▶▶ Blogs (<http://www.inflibnet.ac.in/blog/>);
- ▶▶ Wiki (<http://www.inflibnet.ac.in/wiki/>);
- ▶▶ Streaming Media and Social Network (<http://in.youtube.com/inflibnet>);
- ▶▶ RSS Feeds Aggregation Service (<http://www.inflibnet.ac.in/feed/>); and
- ▶▶ Library Toolbar.

### 10. Institutional Repositories Customizations and Support

Yatrik Patel, Scientist D (CS)  
Swapnil Patel, Scientist B (CS)  
Vijay Shrimali, STA (LS)

The INFLIBNET Centre is assisting institutions of higher learning in the process of creation and maintenance of institutional repositories. The Centre is using self-developed expertise in open source software like DSpace, Linux, Perl, Java, Apache Tomcat, PostgreSQL, MySQL etc. Under this initiative, the Centre has installed, configured, customized and hosted institutional repository for

various institutions. During the year under report, the Centre has provided help and support to the institutes given below in Table 27.

Sl. No.	Institute Name	Services Provided
1	ARAI, Pune	Maintenance (Renewed-DSpace version upgrade, Customization, Backup, Statistics generation, Log maintenance)
2	Ganpat University, Mehsana	Hosting (Renewed)
3	Gujarat University, Ahmedabad	DSpace Installation, Customization, Hosting, Maintenance (Sampada Repository)
4	Central University of Rajasthan, Ajmer	DSpace Installation, Customization(Completed), Training(Pending)

**Table 27: Institutions and Services Provided by the INFLIBNET Centre**

Besides, the Centre also provides proactive help, support and consultancy to many national and international institutions over phone and via remote login to setup their repositories. This group is also responsible for supporting and maintaining INFLIBNET Centre's Institutional Repositories as well as other open access initiatives like Shodhganga and Shodhgangotri. This group has provided specialized training to the technical persons from NASDO, Indian Navy, Goa for smooth running of the Project called Digitap.

#### **11. INFLIBNET Access Management Federation (INFED) (<http://parichay.inflibnet.ac.in/>)**

Jagdish Arora, Director  
Yatrik Patel, Scientist D (CS)  
Ashok Kumar Rai, Scientist D (CS)  
Raja V., Scientist B (CS)

The INFLIBNET Access Management Federation (INFED), the first and only access management federation in India, based on Shibboleth, a standard-based open source software, for authenticating authorized users from colleges, universities and other institutes in India. The federation, set-up with permission of the Governing Board, INFLIBNET Centre provides seamless access to e-resources from anywhere, anytime. INFED is member of eduGAIN.

As of now 23 institutes have joined INFED. The INFED is working with 33 publishers that are providing access to e-resources to e-Shodh Sindhu. Moreover, five publishers have signed our membership as per the details given below. While seven institutes have set-up their own IDPs, the Centre has setup and established IDPs on behalf of 7 institutes as per the details given below in Table 28:

<b>Institutes</b>	<b>Publishers</b>
Acharya Nagarjuna University	ACM Digital Library (^)
Alagappa University	American Chemical Society(^)
Ambedkar University Delhi (*)	American Institute of Physics
Assam University (*)	Annual Reviews
Bharathidasan University (*)	ASME Journals Online
Bharathiyar University	ASTM Standards + Digital Library
Central university of kashmir	Cambridge University Press
Central university of Punjab	CRIS INFAC Industrial Information (CRISIL)
Central university of Rajasthan	IEEE (^)
Indira Group of Institutes, Pune (*)	JSTOR
IIMA	Springer Link
JNU	Taylor and Francis
Madurai Kamaraj University (*)	Web of Science and etc.
Maharshi Sayanand University, Rohtak	
Mazharul Uloom College	
National Institute for Research in Tuberculosis	
NIT Rourkela	
MS University of Baroda (*)	
Tumkur University and etc.	

(\*) IDP setup done by INFLIBNET

(^ )Formally signed membership

**Table 28: INFLIBNET Access Management Federation (INFED)' Members**

## **12. ICSSR Data Service: Social Science Data Repository**

Jagdish Arora, Director  
Yatrik Patel, Scientist D (CS)  
Divyakant Vaghela, Scientist B (CS)  
Mitesh Pandya, Scientist B (CS)  
Hitesh Solanki, Scientist B (CS)  
Mitisha Vaidya, Project Officer (CS)  
Gaurav Gond, Project Officer (CS)  
Tulsi Punjani, Project Assistant (Statistics)  
Divya Vyas, Project Assistant (LS)

The INFLIBNET Centre was awarded a project for setting-up of Data Repository for Social Science by Indian Council of Social Science Research, New Delhi. ICSSR Data Service was set-up using NADA (National Data Archive) - open source data repository software developed by IHSN (International Household Survey Network). NADA uses Data Documentation Initiative (DDI) metadata standard for describing datasets. NADA also facilitate importing of existing datasets in DDI format. Figure 46 depicts website of ICSSR Data Service.



**Fig. 46: ICSSR Data Service's Website**

136 datasets (92 NSS datasets, 43 ASI datasets and Time Use Survey datasets) are hosted on ICSSR Data Service portal. Unit level data for each dataset have been converted to SPSS format (\*.sav), STATA format (\*.dta) and Tab Separated Value format (\*.dat) and uploaded with the datasets on the portal. These datasets have been categorised, described and documented according to DDI Standards. User can download any dataset and do further analysis as per the requirement.

The Centre has customized various operations and implemented new features in ICSSR Data Service. In registration procedure, the centre has customized registration form as per requirement and added few fields along with identity proof which is important in the verification process. Apart from that, the Centre has developed an interface to create a new dataset as well as to update the metadata of existing datasets.

### **12.1. ICSSR Data Analytic Tool**

Yatrik Patel, Scientist D (CS)  
 Divyakant Vaghela, Scientist B (CS)  
 Hitesh Solanki, Scientist B (CS)  
 Mitisha Vaidya, Project Officer (CS)



The Centre has developed “ICSSR Data Analytic Tool” for exploring the unit level data available in datasets. Beta version of the tool is available at <http://www.icssrdataservice.in/shiny/analytictool/> as shown in Figure 47. This tool is developed using "R" language to facilitate advance analysis and visualization of datasets. Various operations (like maintaining uniform key variable name, removing duplicate fields) had to be performed on each block of dataset making ICSSR Data Analytic Tool functional. User can perform a number of analytical operations by using this tool such as: univariate analysis, data transformation, cross tabulation, pivot analysis. User can visualize the resultant data using various charts like histogram, bar plot, stacked chart, column chart, heat map, etc. Apart from this, user can generate the map of state wise data derived through analysis.



Fig. 47: ICSSR Data Analytic Tool

### 13. National Institutional Ranking Framework (NIRF): India Ranking 2016

The INFLIBNET Centre was given a project for developing a web portal for “National Institutional Ranking Framework (NIRF)”: India Ranking 2016 by the National Board of Accreditation (NBA). NIRF was approved by the MHRD and launched by Honourable Minister of Human Resource Development on 29<sup>th</sup> September, 2015. This framework outlines a methodology to rank institutions across the country.

The NIRF provides for ranking of institutes under five broad generic parameters, namely: i) Teaching, Learning and Resources; ii) Research and Professional Practice Performance; iii) Graduation Outcome; iv) Outreach and Inclusivity; and v) Perception. Figure 48 given below, provides an outline of the sub-parameters for each of the five generic parameters. As mentioned above, however, some of the sub-parameters had to be dropped due to serious lack of reliability and consistency.



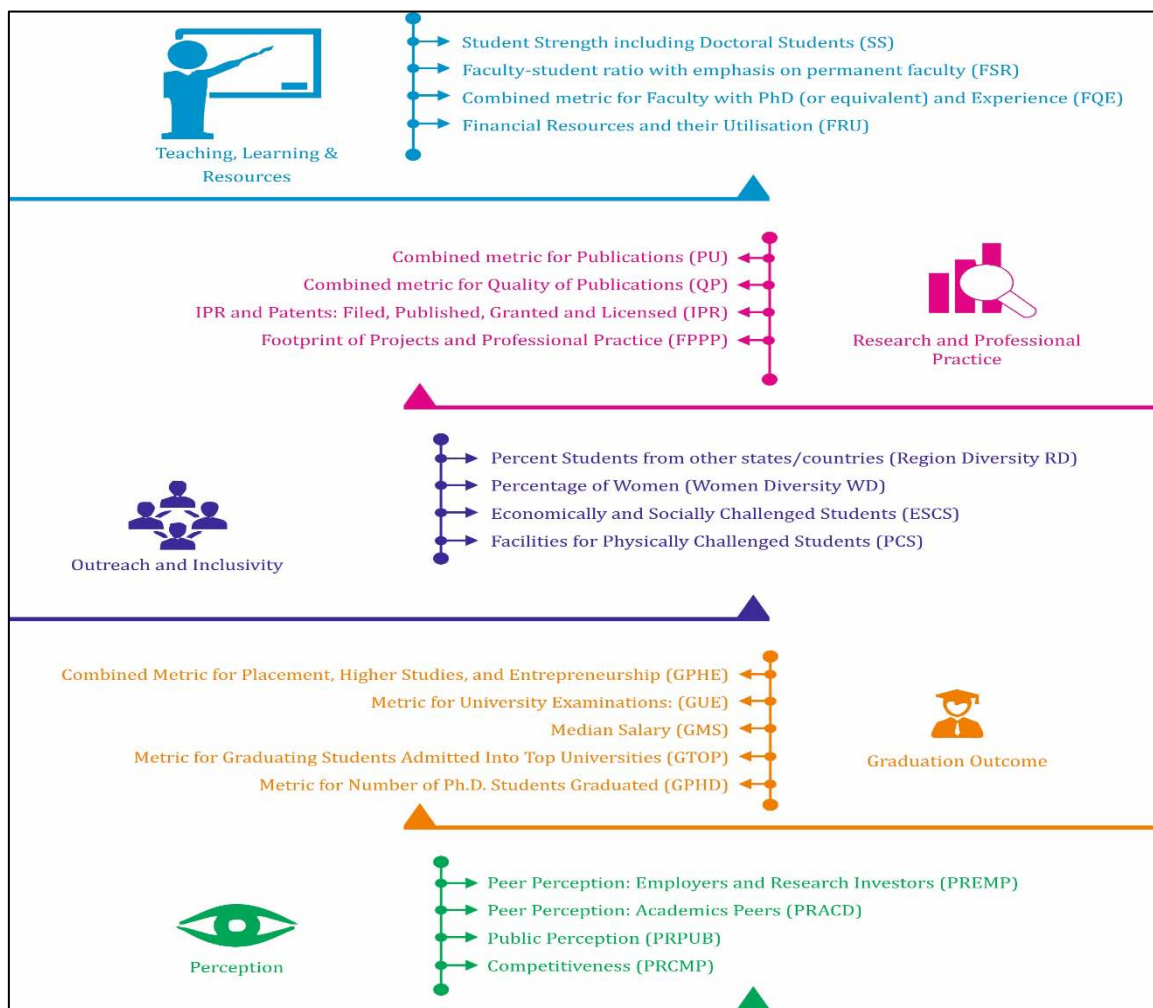


Fig. 48: NIRF Parameters for Ranking of Institutes

Ranking methods has worked out for different categories of institutions i.e. Overall, Engineering, Management, Pharmacy, Architecture, Law, Universities and Colleges. Although the Ranking Frameworks are similar, the exact methodologies are domain specific. The Centre developed a web application for institutions for capturing required data online. The Centre was also given the responsibility to provide data on the research publications and citations from Web of Science, Scopus and Indian Citation Index.

The INFLIBNET Centre was also given the responsibility for developing NIRF Web interface for perception capturing, feedback mechanism and ranking platform. The Centre also provided and verified data on patents for universities and engineering institutions. Technical help desk was set-up at the INFLIBNET Centre for providing help to applicant institutions.

### 13.1. Participation Profiles

Institutes desirous of participating in the India Rankings 2017 were invited to register on the NIRF Web portal and submit their applications online for overall ranking as well as for one or more

disciplines along with relevant data in the given format by 30<sup>th</sup> November 2016. Institutes were also given opportunity to edit the data and upload supporting documents in the prescribed format by 30<sup>th</sup> January 2017.

The final picture of participation is summarised in Tables 29 and 30.

Category / Discipline	Total No. of Institutes	CFTIs & CFUs	Other Universities
Overall	724	109	239
Engineering	1007	56	163
Management	542	25	95
Pharmacy	316	5	62
Architecture	42	4	17
College	535	0	10
Arts	61	12	43
Medical	43	1	28
Law	49	4	28
<b>Total</b>	<b>3319</b>	<b>216</b>	<b>685</b>

Table29: Participation Numbers for Overall and Discipline Specific Rankings

Discipline / Region	Overall	Engineering	Management	Pharmacy	Architecture	Colleges	Arts	Medical	Law
North	162	137	106	60	10	69	21	13	13
North-east	36	20	10	5	1	17	2	1	1
South	174	310	137	54	15	81	10	16	7
South-east	113	230	127	80	4	169	9	1	9
East	74	84	38	18	2	27	8	0	4
West	165	226	124	99	10	172	11	12	15
<b>Total</b>	<b>724</b>	<b>1007</b>	<b>542</b>	<b>316</b>	<b>42</b>	<b>535</b>	<b>61</b>	<b>43</b>	<b>49</b>

Table 30: Region-Wise Distribution of Institutes Registered for India Rankings 2017

#### 14. SWAYAM-PRABHA

Jagdish Arora, Director  
 Abhishek Kumar, Scientist C (CS)  
 Priya Varu, Project Officer (CS)  
 Nirmala Khadka, Project Assistant (CS)  
 Brijesh K, Project Assistant (LS)

The INFLIBNET Centre was assigned the task of developing website of SWAYAM-PRABHA and its hosting including archiving of videos for all the channel. The platform provides for uploading of programme schedule by the channel coordinators, display of programme schedule (current, upcoming and archives), searching of e-content/videos using different kinds of filters such as

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channel-wise search and subject-wise search; and dashboard for MHRD, BISAG and admin view. The portal would also provide for playing of archival videos that have already been telecasted on the channels.

The SWAYAM-PRABHA, an MHRD project under NME-ICT, is conceived as a group of 32 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 transponders. New content for at least four hours are being telecasted that would be repeated 5 more times in a day, allowing the student to choose the time slot as per their convenience. SWAYAM-PRABHA covers the following lectures of education:

a) **Higher Education:** Curriculum-based course contents at post-graduate and under-graduate level covering diverse disciplines such as arts, science, commerce, performing arts, social sciences and humanities, engineering, technology, law, medicine, agriculture, etc. All courses would be certification-ready in their detailed offering through SWAYAM, the platform being developed for offering MOOCs courses.

b) **School education (9-12 levels):** Modules for teacher's training as well as teaching and learning aids for children of India to help them understand the subjects better and also help them in preparing for competitive examinations for admissions to professional degree programmes.

c) **Curriculum-based courses:** Curriculum-based courses that can also meet the needs of life-long learners of citizens in India and abroad.

d) **IIT-PAL:** Four dedicated channel for competitive exam preparation.

#### 14.1. Channels Details

Details of SWAYAM-PRABHA's Channels and Channel Route is given below in Table 31.

Channel No.	Channel Name	Channel Route/Parent
<b>Channels 01-10 are Managed by UGC/CEC, New Delhi</b>		
1	Channel 01: CEC/UGC: Humanities- 1, Language and Literature	EMRC, EFLU, Hyderabad
2	Channel 02: CEC/UGC: Humanities- 2, Arts, History, Philosophy and related Subjects	CEC, New Delhi
3	Channel 03: CEC/UGC: Social Science -1, Sociology, Political Science and related Subjects	CEC, New Delhi

4	Channel 04: CEC/UGC: Social Science - 2, Education, Psychology, Home Science and related Subjects	CEC, New Delhi
5	Channel 05: CEC/UGC: Social Science - 3, Management, Library Science, Information Science and related subjects	EMRC / MCRC, Jamia Millia Islamia, New Delhi
6	Channel 06: CEC/UGC: Social Science - 4, Law, Legal Studies, Human Rights and related subjects	EMRC, Punjabi University, Patiala
7	Channel 07: CEC/UGC: Economics, Commerce and Finance	EMRC, Gujarat University, Ahmedabad
8	Channel 08: CEC/UGC: Physical sciences, Mathematics, Physics, Chemistry and related Subjects	EMRC, University of Calicut
9	Channel 09: CEC/UGC: Life Sciences, Botany, Zoology, Bio-Science and related Subjects	EMRC, Kashmir University, Srinagar
10	Channel 10: CEC/UGC: Applied Sciences, Allied Physical and Chemical sciences and related Subjects	EMRC, Anna University, Chennai
<b>Channels 11 to 18 are Managed by NPTEL</b>		
11	Channel 11: NPTEL: Chemical Engineering, Chemistry and related Subjects	IIT Kharagpur
12	Channel 12: NPTEL: Civil Engineering and related Subjects	IIT Delhi
13	Channel 13: NPTEL: Computer Science and Engineering	IIT Kharagpur
14	Channel 14: NPTEL: Electrical Engineering, Electronics and Communication Engineering and related Subjects	IIT Delhi
15	Channel 15: NPTEL: Engineering Sciences and General Subjects for Engineering	IIT Madras
16	Channel 16: NPTEL: Humanities, Social Sciences and Management	IIT Kanpur
17	Channel 17: NPTEL: Mechanical Engineering and related Subjects	IIT Kanpur
18	Channel 18: NPTEL: Mathematics, Physics, Metallurgy and related Subjects	IIT Tirupati / IIT Madras
<b>Channels 19 -22 are Managed for High School Students by IIT Delhi and is called IIT PAL</b>		

19	Channel 19: IIT PAL: Biology	IIT PAL 1 IIT Delhi
20	Channel 20: IIT PAL: Chemistry	IIT PAL 2, IIT Delhi
21	Channel 21: IIT PAL: Mathematics	IIT PAL 3. IIT Delhi
22	Channel 22: IIT PAL: Physics	IIT PAL 4, IIT Delhi
<b>Channels 23 to 26 are Managed by IGNOU, New Delhi</b>		
23	Channel 23: IGNOU: Liberal Arts and Humanities	IGNOU, New Delhi
24	Channel 24: IGNOU: Agriculture, Vocational and Allied Sciences	IGNOU, New Delhi
25	Channel 25: IGNOU: Culture	IGNOU, New Delhi
26	Channel 26: IGNOU: State Open Universities' Programs	IGNOU, New Delhi
<b>Channels 27 and 28 are Managed by the NIOS, New Delhi</b>		
27	Channel 27: NIOS: Secondary School Education	NIOS, New Delhi
28	Channel 28: NIOS: Higher Secondary School Education	NIOS, New Delhi
<b>Channels 29 and 30 are Managed QEEE, IIT Madras</b>		
29	Channel 29: QEEE: QEEE 1 (Live Classes in Engineering and Technology)	IIT Madras
30	Channel 30: QEEE: QEEE 2 (Live Classes in Engineering and Technology)	IIT Madras
<b>Channel 31 is Managed by NCERT</b>		
31	Channel 31: NCERT: School and Teacher Education	NCERT, New Delhi
<b>Channel 32 is Managed by IGNOU and NIOS Jointly</b>		
32	Channel 32: IGNOU and NIOS: Teacher Education	IGNOU and NIOS, New Delhi

**Table 31: Channel Details of SWAYAM-PRABHA**

#### **15. Revamping of the UGC Websites and Development of Grant Management System and e-Scholarship-Fellowship Award Registration Tracking System (e-SARTS)**

The University Grants Commission has given the responsibility for development and maintenance of website of the UGC as well as for automation of its various schemes, Grant Management System and e-Scholarship-Fellowship Award Registration Tracking System (e-SARTS). The project was awarded to the INFLIBNET Centre in May 2011. The Centre has set-up a dedicated server for the UGC website and schemes which is co-located at the Data Centre of the BSNL, Ahmedabad. So far, the Centre has developed interfaces for the following schemes are given below in table 32:

Sl. No.	Name of Scheme Fellowship/ Scholarship	Year	No. of Applications receiving and processed
1	Maulana Azad National Fellowship for Minority Students	2017-18	5,760
2	Rajiv Gandhi National Fellowship for SC Candidates	2017-18	7,302
3	Post-Graduate Indira Gandhi Scholarship for Single Girl Child	2016-17	4,716
4	Post-Graduate Merit Scholarship for University Rank Holder	2016-17	2,393
5	Post-Doctoral Fellowship to SC/ST Candidates	2016-17	1,938
6	Post Graduate Scholarship for Professional Courses for SC/ST Candidates	2016-17	3,769
7	Post-Doctoral Fellowship to Women Candidates	2017-18	3,150
8	Emeritus Fellowship	2017-18	776
9	Rajiv Gandhi National Fellowship for Students with Disabilities	2016-17	438
10	Dr. S. Radharkrishnan Post-Doctoral Fellowship in Humanities and Social Sciences (Including Languages)	2017-18	2,238
11	Special Assistance Programme (SAP-DRS Phase-I)	2016	175
12	Swami Vivekananda Single Girl Child Scholarship for Research in Social Sciences	2017-18	207
13	Special Scholarship Scheme for North-Eastern Region	2016-17	29,316
14	National Fellowship for OBC Candidate	2015-17	8,946
15	Online Students Grievance Redressal Portal		More than 4,500 online applications were received
16	Academic Jobs Portal for NET/SET/Ph.D.		More than 70,000 online applications were received
16.	Minor Research Project	2016-17	43 reports were received

**Table 32: UGC Websites and Development of Grant Management System and e-Scholarship-Fellowship Award Registration Tracking System (e-SARTS)**

## **16. Publications**

The INFLIBNET Centre has two major publications i.e. Quarterly Newsletter and Annual Report. Both publications were brought out and distributed to the academic community of the country. The copies of the Newsletters and Annual Reports are downloadable in PDF format and the "Publications" on INFLIBNET website at <http://www.inflibnet.ac.in/publication/>. The copies of Annual Reports, PLANNER and CALIBER proceedings are also available through the Institutional

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Repository (IR) in PDF format. The course materials of various training programmes and workshops, lecture notes, presentations and newspaper clippings are also available in the IR of the Centre at <http://ir.inflibnet.ac.in>. List of publications including articles, published conference proceedings, user guides and manuals published by scientists and staff of the Centre is given as below:

**a. Conference Proceedings in Print**

- i) Arora, Jagdish et al (eds.). Disruptive Innovations for Libraries: Adopt, Adapt and Evolve: Proceedings of the 10<sup>th</sup> PLANNER 2016 organised by INFLIBNET Centre, Gandhinagar, November 9-11, 2016. Gandhinagar: INFLIBNET Centre, 2016. 424 p.

**b. Papers Published in Journals, Newsletters and Conference Proceedings**

- i) Pradhan, Pallab. Data repositories in India with specific reference to "ICSSR Data Service: Indian Social Science Data Repository". INFLIBNET Newsletter, 23(2), p. 17-25, 2016.
- ii) Patel, Yatrik and Raja V. Ensuring high-level system availability of computing services. INFLIBNET Newsletter, 23(3), p. 19-24, 2016.
- iii) Pradhan, Pallab. Science mapping and visualization tools used in bibliometric & scientometric studies: An overview. INFLIBNET Newsletter, 23(4), p. 19-33, 2016.
- iv) Patel, Yatrik, Vaghela, Divyakant, Solanki, Hitesh and Vaidya, Mitisha. R: An open source software environment for statistical analysis. INFLIBNET Newsletter, 24(1), p. 14-21, 2016
- v) Shrimali, Vijaykumar and Shaikh, Nabila. Disaster recovery plan: automating backup process for library database. **In:** Disruptive Innovations for Libraries: Adopt, Adapt and Evolve: Proceedings of the 10<sup>th</sup> PLANNER 2016 organised by INFLIBNET Centre, Gandhinagar, November 9-11, 2016. (eds. Jagdish Arora [et.al.]). Gandhinagar: INFLIBNET Centre, p. 52-60, 2016.
- vi) Pradhan, Pallab, Solanki, Hitesh and Patel, Swapnil. Analysis of the citation patterns, keywords clustering and collaboration networks. **In:** Disruptive Innovations for Libraries: Adopt, Adapt and Evolve: Proceedings of the 10<sup>th</sup> PLANNER 2016 organised by INFLIBNET Centre, Gandhinagar, November 9-11, 2016. (eds. Jagdish Arora [et.al.]). Gandhinagar: INFLIBNET Centre, p. 225-234, 2016.
- vii) Panda, Saroja Kumar, Arora, Jagdish and Rai, Ashok Kumar. Interlending and document delivery in India through INFLIBNET and the UGC-INFONET Digital Library Consortium. Interlending & Document Supply, 44(3), 115-120, 2016.

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- viii) Kumar, Abhishek. MOOCs: A study on MOOCs platforms & Its parameters. In: Business Process Re-Engineering for Sustainability & Climate Change: Issue & Perspectives. Proceedings of the 2<sup>nd</sup> International Research Conference organised by International Association of Research & Development Organisation, New Delhi, February 26, 2017.

## **17. Awards, Honours and Distinctions**

### **17.1. Dr. Jagdish Arora, Director**

Dr. Jagdish Arora delivered 31<sup>st</sup> Sarada Ranganathan Endowment Lecture on “Changing Roles of Libraries in Research and Innovation” and “Data Management and Libraries” organized by Sarada Ranganathan Endowment for Library Science (SRELS) and Ranganathan Centre for Information Studies, Bangalore on 31<sup>st</sup> August, 2016 in Anna University, Chennai.

Dr. Arora was nominated as a Member of the Expert Committee, National Institutional Ranking Framework (NIRF) as well as a member of the Implementation Core Committee of the India Rankings 2017 (NIRF) for the years 2016 and 2017. He continued to be a member of the Project Review and Steering Group (PRSG) of the National Digital Library Project of the National Mission on Education through ICT being executed by the IIT Kharagpur. Dr. Arora continued to be a member of the Standing Committee as well as its sub-committee, e-PG Pathshala, a project of the National Mission on Education through ICT being executed by the University Grants Commission, New Delhi. He is also Member of the Advisory Committee of ICSSR for Setting up Data Centre in ICSSR, New Delhi. He was nominated a member of the UGC’s Standing Committee on Notification of Journals. He continued to be a member of the Court of Central University of Gujarat, Gandhinagar.

Dr. Arora was Chairman of the special session on National Digital Library (NDL) wherein he also moderated a panel discussion on NDL during 5<sup>th</sup> International Conference on Digital Libraries (ICDL-2016): “Smart Future: Knowledge Trends that will Change the World” held at India Habitat Centre, New Delhi on 13<sup>th</sup> December, 2016.

Dr. Jagdish Arora delivered a number of invited talks, keynote addresses and moderated panel discussions as per the details given below:

- i) Invited talk on “ICSSR Data Service: Social Science Data Repository”, during the EqUIP Academic Symposium on Digital Archives and Databases as a Source of Mutual Knowledge, held on 5<sup>th</sup> and 6<sup>th</sup> May, 2016 in Rome, Italy.
- ii) Keynote address on “Changing Role of Libraries in Google Era” during the International Conference on “From Ownership to Access: Leveraging the Digital Paradigm” held on 19<sup>th</sup> and 20<sup>th</sup> May 2016 at Ambedkar University Delhi, Kashmere Gate, Delhi.



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- iii) Invited presentation on "Activities and Services of INFLIBNET Centre" during the DST-Interaction Meet on Development of Database of Indian / NRIs Ph. D. Degree Holders, held on 5<sup>th</sup> April, 2016 at Technology Bhawan, New Delhi.
  - iv) Invited talk on "Information Sharing & Cloud Computing", during "Recent Advances in Information Technology (READIT)": National Conference on Information Access in Digital Era" organized from 13<sup>th</sup> to 14<sup>th</sup> July, 2016 at IGCAR, Kalpakkam.
  - v) Invited talk on "INFLIBNET Centre: Services for FSSAI" during Workshop on Scientific Cooperation Framework for Food Safety held on 12<sup>th</sup> July, 2016 at India Habitat Centre, Institutional Area, New Delhi.
  - vi) Invited talk on "Information Literacy Activities at the INFLIBNET Centre" during UNESCO-sponsored Workshop on Media and Information Literacy held on 24<sup>th</sup> August, 2016 in Central University of Himachal Pradesh, Dharamshala.
  - vii) Keynote address on "Media and Information Literacy at INFLIBNET Centre", during the inaugural session of the UNESCO-supported Capacity Building Workshop on Media and Information Literacy held at Punjabi University, Patiala on 17<sup>th</sup> to 19<sup>th</sup> October 2016.
  - viii) Keynote address on "Changing Roles of Libraries and Librarians in Libraries of Future" during the E-Content 2016: A Seminar on Library Services and Management – A Platform Approach held on 22<sup>nd</sup> November, 2016 at Ahmedabad.
  - ix) Invited talk on "Role of Social Media in Promoting Library Services" during the inaugural session of International Conference on "Marching Beyond the Libraries (ICMBL – 2016): The Role of Social Media and Networking held in KIIT University, Bhubaneswar, 25<sup>th</sup> to 26<sup>th</sup> November, 2016.
  - x) Invited to moderate the session on "Digital Literacy: Standards and Policy" during 5<sup>th</sup> International Conference on Digital Libraries (ICDL-2016): "Smart Future: Knowledge Trends that will Change the World" held at India Habitat Center, New Delhi, on 13<sup>th</sup> to 16<sup>th</sup> December, 2016.
  - xi) Keynote address on "Changing Roles of Libraries in Qualitative Research and Education", during the inaugural session of "Emerging Trends and Techniques in Library and Information Services in Academic Libraries (ETTLISAL)", held at Rajkiya Maharaj Acharya Sanskrit College Library, Jaipur, Rajasthan from 24<sup>th</sup> to 25<sup>th</sup> January, 2017.
  - xii) Keynote speaker during the "2<sup>nd</sup> National Seminar on Future of Libraries: Trends, Issues and Challenges (NASOFOL- 2017)" held on 10<sup>th</sup> to 11<sup>th</sup> February, 2017 at University of Jammu, Jammu.

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- xiii) Keynote address on "Role of Libraries in Supporting Innovations and Excellence" during the inaugural session of the National Conference on Library Innovations for Excellence (LIFE 2017), held at IISER, Pune from 16<sup>th</sup> to 17<sup>th</sup> February, 2017.
  - xiv) Invited talk on "IndCat: The Union Catalogue of the INFLIBNET Centre" at the 2<sup>nd</sup> National Koha Conclave at TCS, Pune from 21<sup>st</sup> to 22<sup>nd</sup> February, 2017
  - xv) Invited to moderated a panel discussion on Koha-based union catalogue during the 2<sup>nd</sup> National Koha Conclave at TCS, Pune 21<sup>st</sup> to 22<sup>nd</sup> February, 2017
  - xvi) Invited to moderated a panel discussion on "Demonstrating Value of Libraries in Academic and Research Work" during International Conference on Changing Landscape of Science & Technology Libraries, organized by the IIT Gandhinagar from 2<sup>nd</sup> to 4<sup>th</sup> March, 2017.
  - xvii) Keynote speaker during the National Conference on Transforming Libraries in 21<sup>st</sup> Century (NCTL-2017), 30<sup>th</sup> March, 2017 organized by the Department of Library and Information Science, Babasaheb Bhimrao Ambedkar University, Lucknow.

#### **17.2. Mr. Manoj Kumar K., Scientist D (CS)**

Mr. Manoj Kumar K served as faculty to the following workshops / training programmes and delivered invited lectures / talks / keynote addresses:

- i) 'Plagiarism Issues in a University and Solution'" invited lecture at JK Lakshmipat University, Jaipur on 9<sup>th</sup> May, 2016
- ii) 'Academic honesty while conducting research: Shodhganga and Anti-plagiarism Tools' invited lecture at Pandit Deendayal Petroleum University, Gandhinagar on 12<sup>th</sup> May, 2016.
- iii) 'Recent Trends & Technologies in Education, Indian These Repository for Research and plagiarism detection under Shodhganga' invited lecture during U.G.C. sponsored Refresher Course In Innovative Research Possibility at Gujarat University, Ahmedabad on 10<sup>th</sup> June, 2016.
- iv) 'Academic Integrity in Research: Use of Anti-plagiarism Tools' invited lecture at Mangalore University, Mangalore on 27<sup>th</sup> October 2016.
- v) 'E-Piravi in Education: Research, Resources and Plagiarism' invited lecture during Kerala Piravi day at M E S College, Malappuram on 1<sup>st</sup> November 2016.
- vi) 'Use of E-Shodh Sindhu Resources' invited talk at Central University of Kerala, Kasaragod on 14<sup>th</sup> March 2017.

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- vii) 'Shodhganga: Case Study' invited lecture during Workshop on Design and Development of Digital Library using Dspace at College of Engineering, Kasargod on 14<sup>th</sup> March, 2017.
  - viii) 'Research and Academic Writing' invited talk at Malabar Christian College, Calicut on 15<sup>th</sup> March 2017.
  - ix) 'Ethics in Academia' invited talk at Dr. Mrunalini Devi Puar Auditorium organised by Faculty of Family and Community Sciences, Maharaja Sayajirao University of Baroda (MSU) in collaboration with International Society for the Study of Behavioural Development (ISSBD)-India on 17<sup>th</sup> March, 2017.
  - x) 'Ethics in Academia' invited lecture during Workshop on Use of Anti-Plagiarism Tools organised by Department of Chemistry, Saurashtra University, Rajkot on 24<sup>th</sup> March, 2017.
  - xi) 'Academic Honesty & Plagiarism' invited talk during Seminar cum Workshop on Preventing Plagiarism in Research organised by Nirma University, Ahmedabad on 27<sup>th</sup> March, 2017.

### **17.3. Mr. Abhishek Kumar, Scientist C (CS)**

Mr. Abhishek Kumar was special invitee to all the Meeting of subcommittee and well as Standing Committee of e-PG Pathshala held at University of Grants Commission, New Delhi during the year under report. He was a special invitee to all the Meetings of the Implementation Core Committee of the National Institute of Ranking Framework (NIRF) held at National Board of Accreditation, New Delhi. He represented INFLIBNET Centre at FSSAI and made a presentation on Project bid for FSKAN at FSSAI, New Delhi on 12<sup>th</sup> August, 2016. He represented INFLIBNET Centre during the meetings on SWAYAM PRABHA held in Chennai, Delhi and Gandhinagar during the year under report.

He was invited to demonstrate repurposing of e-content for MOOC on SWAYAM at the UGC, New Delhi on 24<sup>th</sup> October, 2016. He represented INFLIBNET Centre in the Meeting of Task Force Committee for e-Content, UGC, New Delhi on 25<sup>th</sup> October, 2016. He delivered an invited talk on "e-Learning & MOOC" on 28<sup>th</sup> May, 2016 at HRD College, Hyderabad. He was invited to deliver a talk on "e-Learning & MOOC" on 27<sup>th</sup> August, 2016 at HRD College, Hyderabad. He was invited to make a presentation of his paper entitled "India Rankings 2016: Ranking Model for Indian Higher Educational Institutions on 18<sup>th</sup> November, 2016 during International Conference on ICT in Business, Industry and Government (ICTBIG) 2016. He was invited to deliver a talk on MOOC at Jamia Millia Islamia University, New Delhi on 19<sup>th</sup> November, 2016. He was also invited to deliver a talk on MOOC at Academic Staff College, Devi Ahilya University, Indore from 12<sup>th</sup> to 13<sup>th</sup> January, 2017. He made an invited presentation of his paper entitled "MOOCs: A Study on MOOCs Platforms & Its Parameters"

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during 2<sup>nd</sup> International Research Conference organised by International Association of Research & Development Organization at Jawaharlal Nehru University Delhi on 26<sup>th</sup> February, 2017. He was also invited to deliver a video conferencing lecture on 'Swyam Prabha to MHRD, New Delhi at BISAG, Gandhinagar on 22<sup>nd</sup> February, 2017.

#### **17.4. Mr. Kanan P., Scientist C (LS)**

Mr Kannan P was invited by Future of Research Communication and e-Scholarship (FORCE11), a non-profit organization to attend an International Annual Conference called FORCE11 2016 during 16<sup>th</sup> to 19<sup>th</sup> April, 2016 at Portland, USA. Apart from the conference, He visited the New York Public Library, New York and Princeton University Library, New Jersey during his visit to USA.

He was invited to deliver a guest lecture on "Academic Identity: An Overview" organized by Nirma University for faculty members of Institute of Pharmacy on 15<sup>th</sup> September, 2016 at Institute of Pharmacy, Nirma University, Ahmedabad. He was also invited to deliver a guest lecture on "Academic Identity: An ORCID" organized by Nirma University for faculty members of Institute on 18<sup>th</sup> February, 2017 at PG Seminar Hall, Nirma University, Ahmedabad.

#### **17.5. Mr. Swapnil Patel, Scientist B (CS)**

Mr. Swapnil Patel was invited to give suggestions on the Library module of the In-house ERP software on 21<sup>st</sup> November 2016 at INDUS University, Ahmedabad. He was also invited to deliver a lecture on 'DSpace Administration & Import/Export' followed by 'hands-on' practical session during Workshop on Design and Development of Digital Library using Dspace at College of Engineering, Kasargod on 14<sup>th</sup> March, 2017.

#### **17.6. Mr. Miteshkumar Pandya, Scientist B (LS)**

Mr. Miteshkumar Pandya was invited to deliver lectures on 'Creative Commons & Licenses, Copyright Act and Publishing Research Data / Linked Open Data' for Research Scholars of Gujarat University during Ph.D. course work organised by Academic Staff College, Gujarat University, Ahmedabad on 25<sup>th</sup> February, 2017. He was also invited to deliver a lecture on "Quantifying research output: Analyzing scholarly output and understanding research impact R" during Seminar-cum-Workshop on Preventing Plagiarism in Research organised by Nirma University, Ahmedabad on 27<sup>th</sup> March, 2017.

#### **17.7. Mr. Pallab Pradhan, Scientist-B (LS)**

Mr. Pallab Pradhan attended '3:AM Altmetrics Conference' organized by University of Medicine and Pharmacy Carol Davila, Bucharest during 28<sup>th</sup> to 29<sup>th</sup> September, 2016 at University Campus,

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Bucharest, Romania. Apart from the conference, he visited the University of Bucharest, National Library of Romania, National Museum of Art of Romania and Palace of the Parliament.

#### **17.8. Mr. Hiteshkumar Solanki, Scientist B (CS)**

Mr. Hiteshkumar Solanki was invited to deliver talk on 'Introduction to R' during Short-term Training Programme Statistical analysis for Scientific & Technical Research & Application (SASTRA ) 2017 at B V M Engineering College, Vallabh Vidyanagar on 8<sup>th</sup> March, 2017.

#### **17.9. Mr. Vijaykumar Shrimali, STA (CS)**

Mr. Vijay Shrimali was invited for 'hands on' practical session of 'DSpace Administration & Import/Export' during Workshop on Design and Development of Digital Library using Dspace at College of Engineering, Kasargod on 14<sup>th</sup> March, 2017. He was also invited to deliver lecture on 'SOUL 2.0 Overview and troubleshooting' during 15<sup>th</sup> State Seminar on "Emerging Trends & Technology in Academic Libraries" at Municipal Arts and Urban Science College, Mehsana on 19<sup>th</sup> March, 2017.

### **18. Ongoing Projects and Schemes@INFLIBNET Centre**

#### **18.1. e-Shodh Sindhu: Consortium for Higher Education Electronic Resources**

The MHRD has formed e-Shodh Sindhu by merging three consortia initiatives, namely; UGC-INFONET Digital Library Consortium, N-LIST and INDEST-AICTE Consortium based on the recommendation of an Expert Committee. e-Shodh Sindhu provides current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act. Activities and Services of e-Shodh Sindhu is described in detail at 7.1.

#### **18.2. ICSSR Data Service: Social Science Data Repository**

The project on "ICSSR Data Service: Social Science Data Repository" is culmination of signing of Memorandum of Understanding (MoU) between Indian Council of Social Science Research (ICSSR) and Ministry of Statistics and Programme Implementation (MoSPI) that provides for setting up of repository and hosting of NSS and ASI datasets into the data repository. The Project on ICSSR Data Service: Social Science Data Repository assigned to the INFLIBNET Centre is described in detail at 12.

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### **18.3. Development of Web Portal for National Institutional Ranking Framework (NIRF) – 2017**

Development of Web-portal for the National Institutional Ranking Framework (NIRF), a prestigious initiative of the Ministry of Human Resource Development (MHRD), was awarded to the INFLIBNET Centre. The Centre developed portal to capture data required for ranking of universities, colleges and other institutions desirous of ranking themselves under various categories. The Centre also provides publications and citations data from Web of Science, Scopus and Indian Citation Index for more than 3,000 institutions that had applied for ranking themselves for ranking under NIRF. NIRF is described in detail at 13.

### **18.4. Food Safety Knowledge Assimilation Network (FSKAN): A project by FSSAI**

FSKAN is conceived as a platform designed to facilitate scientific co-operation amongst organizations by co-ordination of activities, exchange of information, development and implementation of joint projects. The INFLIBNET was assigned the task of developing a platform to assimilate all the information on single platform. The platform is being incorporated with different modules such as Expert Management System, e-Resources, Project Proposal System, discussion forum, etc.

### **18.5. SWAYAM-PRABHA**

The INFLIBNET Centre was assigned the task of developing website of SWAYAM-PRABHA and its hosting including achieving of videos of all the channel. The platform provides for uploading of programme schedule by the channel coordinators, display of programme schedule (current, upcoming and archives), searching of e-content/videos using different kinds of filters such as channel-wise search and subject-wise search; and dashboard for MHRD, BISAG and admin view. The portal would also provide for playing of archival videos that have already been telecasted on the channels. Current status of SWAYAM-PRABHA is described in details at 14.

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# **PART - III**

## **International, National Conference, Workshops, Seminars and Training Programme**



## 1. 10<sup>th</sup> PLANNER 2016, North Eastern Hill University, Shillong, 9<sup>th</sup>-11<sup>th</sup> November, 2016

The 10<sup>th</sup> PLANNER 2016 (Promotion of Library Automation and Networking in North Eastern Region) was organised by the INFLIBNET Centre in collaboration with North Eastern Hill University, Shillong on the theme “Disruptive Innovations for Libraries: Adopt, Adapt and Evolve” from 9<sup>th</sup> to 11<sup>th</sup> November 2016. The main theme of the convention was divided into three sub-themes, namely i) Technologies for Libraries; ii) Library Management: Collections and Human Resources; and iii) Innovative Services. The Convention was attended by more than 200 delegates and invitees from all over the country. 29 publishers participated in the exhibition arranged as part of the Convention. Out of 128 submissions, 42 papers were selected for presentation and 17 papers were selected for poster presentations.

### 1.1. Inaugural Session



Fig. 49: Dr. F. R. Sumer, Deputy Librarian, Prof. J C Binwal, Former University Librarian, Prof. Sri Krishna Srivastava, Vice Chancellor, NEHU, Mr. R G Lyngdoh, Vice-Chancellor, Martin Luther Christian University Dr. Jagdish Arora, Director, INFLIBNET Centre, Prof. Jagtar Singh, Head, DLIS, Punjabi University, Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre on the Dais during the Inaugural Session

Dr. F R Sumer, Deputy Librarian, North Eastern Hill University and Organizing Secretary for the 10<sup>th</sup> PLANNER 2016, welcomed the dignitaries on the dais as well as guests and the participants. Mr. R G Lyngdoh, Vice-Chancellor, Martin Luther Christian University, inaugurated the Convention by lighting the lamp along with all dignitaries at Multi Use Conventional Hall, NEHU Campus, Shillong on 9<sup>th</sup> November, 2016.

Dr. Jagdish Arora introduced activities and services of INFLIBNET Centre briefly and highlighted the importance of disruptive technology and its application in the library. In his deliberation, Dr. Arora highlighted various activities undertaken by the INFLIBNET Centre for providing quality-based



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resources for promoting teaching-learning and research in Indian Universities in general and North Eastern Universities in particular. He congratulated all the universities located in North Eastern region of India in achieving high ranks in India Rankings NIRF in comparison to other universities in India. Further, Dr. Arora apprised the guests and the audience about the e-Shodhu Sindhu, a new project initiated by the INFLIBNET Centre and encouraged everyone to make use of e-resources provided by e-Shodh Sindhu.

Prof. Jagtar Singh delivered keynote address. In his address, he pointed out the role of technologies in modernisation of library activities and services. He also emphasised on the role of information literacy/digital literacy, media literacy, etc. for bridging the gap between the information poor and information rich. He stressed upon the role of libraries in materialising various issues for developing a knowledge-based society. He advocated the effective use of social media in libraries for reaching out to unreached in remote locations.

Prof. J.C. Binwal highlighted the importance of the libraries from the ancient culture to the digital age and changing role of librarianship. He emphasised on the role of libraries in bringing information seekers in touch with information sources. He also deliberated on the change of technology from web 1.0 to web 2.0 and web 2.0 to web 3.0. Prof. Binwal also touched upon various aspects of embedded and blended librarianship, information literacy, knowledge management in developing knowledge-based society.

Mr. R. G. Lyngdoh, in his inaugural address, appreciated INFLIBNET Centre for hosting the PLANNER Convention at NEHU, Shillong and the efforts undertaken by the NEHU Library in organising the Convention. He vividly remembered that as Home Minister of the State, he had inaugurated the 1<sup>st</sup> PLANNER Convention as the Chief Guest in the year 2005. He referred to the role of libraries in the past and in the present and mentioned that with promulgation of the technologies and its adaptability, the role of libraries has changed dramatically.

Prof. Sri Krishna Srivastava, was the Guest of Honour of the Convention. In his address, he mentioned about the disruptive technology and its impact on the library services in changing environment. He congratulated the Director, INFLIBNET Centre and his team, local organising committee headed by Dr. Sumer for organising the Convention in a conducive platform. He pointed out the dynamic changes taken place in the NEHU Library with setting-up of Institutional Digital Repositories (IDR) and implementation of emerging technologies in the library. Mr. H G Hosamani, Convener of the Convention extended a warm vote of thanks at the end of the inaugural programme.

Prof. J. C. Binwal, Former University Librarian, NEHU was the Convention Director and Dr. Manoj Kumar Sinha, Associate Professor & Head, DLIS, Assam University was the Rapporteur General.

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Mr. R G Lyngdoh, Vice-Chancellor, Martin Luther Christian University released the printed Proceedings of the Convention, Souvenir as well as proceedings of the Convention on CD.

### 1.2. Tutorials

Convention tutorials were delivered on National Digital Library by Prof. P P Das and Dr. B S Sutradhar, IIT Kharagpur; J-Gate at e-ShodhSindhu by Informatics India; Tutorial on Anti-Plagiarism Software: URKUND by Mr. Manoj Kumar K. Scientist D (CS), INFLIBNET Centre; and setting-up institutional repositories using Dspace by Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre.

### 1.3. Technical Sessions

The theme papers were presented by invited theme speakers during the Technical Session:

Sl. No	Theme	Topic	Theme Speaker
1	Technologies for Libraries	Glimpses of Semantic Web and its Application Across Industries	Mr. Ravi Shankar Jha, Infosys Consultancy
2	Technologies for Libraries	Smart Libraries: Powering the Transition to Learning Common	Dr.Usha Munshi, Librarian, IIPA, New Delhi
3	Library Management: Collections and Human Resources	Disruptive Technology Innovations in Libraries: Impact on future Librarianship	Prof. R. N. Mishra, Prof. & Head, DLISc, Mizoram University, Aizawl
4	Innovative Services	Disruptive Innovation Services	Dr. P. Hensing, Assistant Professor, DLIS, NEHU

29 papers were presented on various themes during six technical sessions during three days of the Conventions as per the details given below in table .

Sessions	Theme	Chairperson	Co-chairman/ Rapporteur	No. of Papers Presented
Session 1	Technologies for Libraries	Mr. Premchand, Librarian, IIAS, Shimla	Dr. R. K. Sharma, Librarian, UNESCO Information Centre for India and Bhutan, New Delhi	4
Session 2	Library Management:	Dr. Ashok Rai, Scientist D (CS)	Dr. P.K. Deka, Librarian, K C Das	4

	Collections and Human Resources		College, Guwahati	
Session 3	Library Management: Collections and Human Resources	Prof. Moses M. Naga, HoD, DLISc, NEHU, Shillong	Dr.Lalresiami, Librarian, Mizoram University, Aizawl	8
Session 4	Innovative Services	Prof. Sanjay Kumar Singh, HoD, DLISc, Gauhati University, Guwahati	Dr.Utpal Das, Librarian I/C, Dibrugarh University, Dibrugarh	5
Session 5	Innovative Services	Dr. M. N. Motebennur, University Librarian, Krishi Viswavidyalaya, Dharwad	Dr.BikikaLaloo, Associate Professor, DLIS, North Eastern Hill University, Shillong	4
Session 6	Innovative Services	Dr.Arun Kumar Sharma	Dr.Mukesh Saikia, Librarian, Tezpur University, Tezpur	4

#### 1.4. Panel Discussion

A panel discussion on the theme of the Convention "Disruptive Innovations for Libraries: Adopt, Adapt and Evolve" was organised prior to the concluding session of the Convention. Prof. A.S. Chandel, Librarian I/C, Sikkim University was the Chairman of the Panel Discussion. Prof. R.N. Mishra, DLISc, Mizoram University, Prof. Manas Ranjan Mahapatra, IPR-NEC, Dr. R.K. Mahapatra, Tripura University, Ms. Karen Donogue, Assistant Professor, Dept of Mass Communication were the panalist for the panel. Prof. A.S. Chandel welcomed the panelists and participants. Thereafter, the panelists deliberated and discussed on emerging issues on the themes of the Convention. Prof. Chandel advocated for implementation of ICT tools and techniques in libraries. He cited the example of extensive use of CDS/ISIS software developed by UNESCO for various library-related activities in nineties. He emphasised on the development of new ICT gadgets, emergence of Internet and WWW, social media, web technology and transition of library from Library 1.0 to Library 2.0 and switching over to Library 3.0, web-enabled services, development of applications for hand held devices like smart phones/mobiles, tablets to access Internet resources.

Dr. Manas Ranjan Mahapatra deliberated on perception of users about libraries and library services. He emphasized that the library is treated as a communication centre and centre for cultural and national heritage preservation, cultural activities and discourses. Prof. R.N. Mishra also highlighted the need for implementing innovative disruptions. He also advocated for maintaining the present library automation activities side-by-side before fully implementing the disruptive innovations. He suggested the use of disruptive technology for innovative library activities and services. He said that

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the library should work to get return on investment (ROI) for the libraries which would come from our research scholars and faculty members in terms of increased research publications output. Dr. R.K. Mahapatra emphasized on the need for manpower training and skill development. He also praised the initiatives taken by the INFLIBNET Centre for colleges and universities in the North-Eastern States.

Ms Karen Donogue discussed various disruptive innovations that are in vogue in library and media. She also emphasized that professionals from library science, information science, media / communication science should come closer and work together.

### **1.5. Valedictory Session**

Mr. Hiteshkumar Solanki, Scientist B (CS), INFLIBNET Centre and Co-Convener of the Convention, delivered welcome address. Prof. J. C. Binwal, Convention Director summed up the three days' convention and expressed his pleasure on grand success of the Convention. Dr. Manoj Kumar Sinha, Associate Professor & Head, DLISc, Assam University and Rapporteur General of the Convention, extended his sincere thanks to the organisers for giving him the responsibility of Rapporteur General in this convention.

Dr. Jagdish Arora, Director, INFLIBNET Centre congratulated all the members of the Organising Committee for organising the event meticulously. He extended his sincere thanks and gratitude to the Hon'ble Vice-Chancellor, Prof. S.K. Srivastava for hosting the event. He, on behalf of INFLIBNET Centre, felicitated all the members of the Local Organising Committee and staff of INFLIBNET Centre for their excellent work in organising the three days' event. Prof. R.P. Mishra, Dean, School of Economics, Management, Information Science & Communication, NEHU appreciated all the efforts of the Central Library and Dept. of Library and Information Science, NEHU, & INFLIBNET Centre for organising such a wonderful mega event at NEHU Campus. Dr. F. R. Sumer extended warm vote of thanks at the end of the Convention.

### **1.6. Recommendations**

The following major recommendations were made during the deliberations of the convention:

- Adequate financial assistance should be provided to the colleges and universities to develop and maintain well equipped ICT laboratories, digital libraries, Internet access / e-resources access points in coming XIII<sup>th</sup> Five Year Plan period;
- Organise more training programmes for the LIS Professionals of North-Eastern Region under the capacity building programme for new generation LIS professionals;

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- Designate INFLIBNET Centre as the National Training Agencies for Library and Information Science professionals, Computer Science personnels, Media personnels with full time faculty and infrastructure for organising continuous Refresher / Orientation Programmes, Training Programmes, Workshops, Seminars, Conferences, etc.;
  - Introduce disruptive innovations in libraries to address the needs of new generation library users; and
  - INFLIBNET Centre should be given the responsibility to develop state-of-art ICT infrastructure with arrangement of adequate learning resources to the public, special and academic (school, college and university) libraries.

## **2. National Conference on Electronic Thesis and Dissertation (iETD 2016), INFLIBNET Centre, Gandhinagar, 5<sup>th</sup> -7<sup>th</sup> October, 2016**

National Conference on Electronic Theses and Dissertations (iETD 2016) was organised at INFLIBNET Centre, Gandhinagar from 5<sup>th</sup> to 7<sup>th</sup> October, 2016. Mr. Manoj Kumar K, Scientist D (CS), Convenor and Ms. Suboohi S., STO (LS), Co-Convenor coordinated the Conference. Mr. Manoj Kumar welcomed the guests and participants. Dr. Jagdish Arora delivered opening remarks and introduced services and activities of the INFLIBNET Centre. Prof. Anamik Shah, Vice-Chancellor, Gujarat Vidyapith, Ahmedabad inaugurated the National Conference by lighting the ceremonial lamp in presence of Dr. Nabi Hasan, University Librarian, Aligarh Muslim University, Dr. Jagdish Arora, Director, Mr. Manoj Kumar K, Scientist D (CS), Mr. H. G. Hosamani, Scientist C (LS) and Ms. Suboohi S., STO (LS), INFLIBNET Centre. In his inaugural address, Prof. Shah emphasized the importance of research and ETDs and also discussed the role of scientific research especially in chemistry and informed about setting-up of a unique facility i.e. National Facility for Drug Discovery Complex at Rajkot University with emphasis on industry- academic linkages for research.

**Prof. Anamik Shah uploaded 1,00,000<sup>th</sup> thesis as a milestone in Shodhganga project during the Inaugural Session.**

Dr. Nabi Hasan delivered keynote address wherein he highlighted the process of digitisation of theses carried out at the AMU. Ms. Suboohi briefed about the three days programme followed by the brief presentation by Mr. Prathap Das from ProQuest. Mr. H. G. Hosamani extended a warm vote of thanks at the end of the inaugural function.

During the National Conference, technical sessions started with presentations on various topics on ETD related to the theme of the Conference i.e. "Evolving ETDs to Knowledge Repositories" are given below:

Topics	Name of Expert and Institution
Keynote address and digitization of theses at AMU, Aligarh	Dr. Nabi Hasan, University Librarian, Mr. Rais Ahmad Khan, and Dr. Jafar Iqbal, SPA, Central Library, Aligarh Muslim University, Aligarh
Evolving ETDs in University Library, Anna University	Dr. G. Krishnamoorthy, Director, University Librarian, Mr. S. Bharanidharan and Dr. V. Rajasekar, University Library, Anna University, Chennai
Developing Institute Digital Repository at Assam University, Silchar: A Case Study	Dr. A. K. Sharma, Librarian, Assam University, Silchar
Citation Practice for Audio Video Materials and Avoiding Plagiarism	Dr. Shailesh Yagnik, Head, Library and Information Service, MICA, Ahmedabad
Managing ETD of Gujarat University: A Case study	Dr. Yogesh Parikh, Librarian, Gujarat University, Ahmedabad
International ETD Programmes/Projects: An Overview	Dr. T S Kumbar, Librarian, IIT Gandhinagar
Shodhganga, A Platform for Improving Quality of Research in Indian Universities	Mr. Manoj Kumar K, Scientist D (CS), Ms. Suboohi S, STO (LS) and Mrs. Archita M, Project Officer (LS), INFLIBNET Centre, Gandhinagar
The Perceived Ease in the Adoption of Electronic Thesis and Dissertation (ETD)	Dr. Hepsibah Francis, Dr. Rama Vaidyanathan, & Dr. A. Thirunavukkarasu, Dr. M.G.R Educational and Research Institute, Chennai
A Study on the Growth and Development of ETD Repositories in the University Libraries of Assam	Mr. Nitya Nanda Pathak, Ms. Konika Malakar, Gauhati University, Guwahati
National Level ETD Efforts: A Comparative Analysis	Dr. Prashant Shrivastava, Librarian, Grade-II, AIIMS, New Delhi and Dr. Dinesh K. Gupta, Professor, Dept. of Library and Information Sciences, Director (Research) Vardhaman Mahaveer Open University, Kota
Open Innovation Initiatives in India	Mr. AbhinavJha and Dr. Kunal Sinha, Central University of Gujarat, Gandhinagar
Alternative Perspectives on Plagiarism	Ms. Astha Jaiswal, Research Student, Central University of Gujarat, Gandhinagar
A Study of Some Characteristics of Ph.D. Theses Uploaded on Shodhganga	Mr. Kumar Gandharv Mishra, M.Sc. Student, University of Delhi, Delhi
Academic Integrity and Plagiarism: A Case Study	Mr. Prakash I N, Dy. Librarian and Dr. H. R. Badrinath, Associate Professor, Alliance School of Business, Alliance University

Dr. Jagdish Arora delivered the valedictory address and distributed certificates to the participants at the end of the programme. Around 60 participants attended the programme.

### 3. Training Programmes on Installation and Implementation of the SOUL Software at INFLIBNET Centre

The INFLIBNET Centre provides Orientation Training Programme on Installation and Implementation of the SOUL Software. The programme is specially designed for imparting training to new users of SOUL software. The morning sessions of the programme are devoted to theoretical lectures and demonstrations, while the afternoon sessions are completely earmarked for “hands-on” practice. The “hands-on” practical sessions are conducted in well-equipped computer laboratory under the guidance of trained staff members of the Centre. The course content of the programme is designed to cover the following topics:

- i) INFLIBNET: Major Activities and Services
- ii) SOUL – Administration and Overview
- iii) SOUL - Catalogue Module
- iv) SOUL - Acquisition Module
- v) SOUL – Circulation Module
- vi) SOUL – Serials Control Module
- vii) SOUL- OPAC, WebOPAC, Installation and Backup

Generally, two participants from every user institution of SOUL software are invited to join this training programme, one each with computer and library science background. As on 31<sup>st</sup> March 2017, a total no. of 131 such training programmes were organized at the Centre. During the period under report, 7 training programmes were organized to impart training to 119 participants from different institutions as shown in Table 33 given below:

Sl. No.	Name of Training Programmes	Period	No. of Participants
1	125 <sup>th</sup> Training Programme on SOUL 2.0	4 <sup>th</sup> -9 <sup>th</sup> April, 2016	14
2	126 <sup>th</sup> Training Programme on SOUL 2.0	30 <sup>th</sup> May-04 <sup>th</sup> June, 2016	27
3	127 <sup>th</sup> Training Programme on SOUL 2.0	01 <sup>st</sup> – 06 <sup>th</sup> August, 2016	25
4	128 <sup>th</sup> Training Programme on SOUL 2.0	26 <sup>th</sup> September- 01 <sup>st</sup> October 2016	17
5	129 <sup>th</sup> Training Programme on SOUL 2.0	28 <sup>th</sup> November-3 <sup>rd</sup> December 2016	12
6	130 <sup>th</sup> Training Programme on SOUL 2.0	30 <sup>th</sup> January – 04 <sup>th</sup> February, 2017	12
7	131 <sup>st</sup> Training Programme on SOUL 2.0	20 <sup>th</sup> – 25 <sup>th</sup> March 2017	12
	<b>Total</b>		<b>119</b>

Table 33: SOUL Training Programmes Organized at the INFLIBNET Centre during 2016-17

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#### **4. SOUL 2.0 In-House/ Regional Training Programme**

##### **4.1. Three-Day In-House Training Programme on SOUL 2.0, Manipur University, Imphal, 17<sup>th</sup>-19<sup>th</sup> May, 2016**

Three-day In-house Training Programme on SOUL 2.0 was organised by Manipur University in collaboration with the INFLIBNET Centre, Gandhinagar at Manipur University Library, Imphal from 17<sup>th</sup> to 19<sup>th</sup> May, 2016. Prof. Th. Madhuri Devi, Librarian (I/C) and Co-ordinator of the programme, welcomed the guests and participants. Prof. H. N. K. Sarma, Hon'ble Vice-Chancellor inaugurated the programme. In his inaugural speech, he said that the staff would be able to provide better scientific services to the users of the library by conducting such kind of training programmes. Dr. Th. Khomdon Singh, Former Librarian & Consultant was chief guest. Ms Nabila Shaikh, Project Officer (CS) and Mr. Vijaykumar Shrimali, STA (CS), INFLIBNET Centre were the resource persons. Theoretical lectures were followed by "hands-on" practical sessions on the same modules by the participants. All the practical sessions of the Training Programme involved intensive discussions and interactions on various pros and cons of SOUL software between participants and the resource persons. Mr. M. Lokendro Singh, Assistant Librarian extended a warm vote of thanks at the end of the programme. 25 participants attended the programme.

#### **5. INFLIBNET Regional Training Programme on Library Automation(IRTPLA)**

##### **5.1. INFLIBNET Regional Training Programme on Library Automation, Mohanlal Sukhadia University, Udaipur, 20<sup>th</sup> - 24<sup>th</sup> February, 2017**

INFLIBNET Regional Training Programme on Library Automation (IRTPLA) was organised by Mohanlal Sukhadia University in collaboration with INFLIBNET Centre, Gandhinagar from 20<sup>th</sup> to 24<sup>th</sup> February, 2017 at Mohanlal Sukhadia University, Udaipur. Dr. Ramkesh Meena, Deputy Librarian coordinated the programme and welcomed the guests and participants. Mr. Himmat Singh Bhati, Registrar inaugurated the programme. Theoretical lectures were followed by "hands-on" practical sessions on the same modules by the participants. All the practical sessions of the Training Programme involved intensive discussions and interactions on various pros and cons of SOUL software between participants and the resource persons. Mr Vijay Shrimali, STA (CS) and Ms. Nabila Sheikh, Project Officer (CS), INFLIBNET Centre were resource persons. 40 participants participated in the programme. Dr. Hanuman Prasad, Professor, Faculty of Management Studies extended warm vote of thanks at the end of the programme.

##### **5.2. INFLIBNET Regional Training Programme on Library Automation, University of Calcutta, Kolkata, 28<sup>th</sup> March-1<sup>st</sup> April, 2017**

INFLIBNET Regional Training Programme on Library Automation (IRTPLA) was organised by the Department of Library and Information Science, University of Calcutta in collaboration with



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INFLIBNET Centre, Gandhinagar from 28<sup>th</sup> March to 1<sup>st</sup> April, 2017 at Chandra Mukhi Kadambini Sabhagriha, Central Library Building, University of Calcutta, Kolkata. Prof. Arabinda Maity, HOD, DLIS delivered welcome address. Dr. Parikshit Mondal, Assistant Professor, DLIS coordinated the programme and briefed about IRTPLA programme. Dr. Sujit Kumar Barua, Deputy Registrar, inaugurated the programme.

Prof. Soumitra Sarkar, University Librarian, Prof. Pijush Kanti Panigrahi, Dean of Faculty Council for Post-Graduate Studies in Education, Journalism and Library Science, University of Calcutta, Prof. Durga Sankar Rath, Vidyasagar University, Mr. Arup Roy Chowdhury, Deputy Librarian, Indian Statistical Institute, Mr. Divyakant Vaghela, Scientist B (CS), INFLIBNET Centre, Mr. Biswajit Bhattacharya, SOUL Coordinator, Mr. Anirban Maji, SOUL Technical Assistant, West Bengal & Orissa Region and Mr. Anupam Sharma, SOUL Technical Assistant, North-Eastern Region were resource persons during the technical sessions. Theoretical lectures were followed by "hands-on" practice on the same modules by the participants. All the practical sessions of the Training Programme involved intensive discussions and interactions on various pros and cons of SOUL software between participants and the resource persons. 37 participants participated in the programme. Dr. Pubalika Bhattacharya Maitra, Assistant Professor, DLIS extended warm vote of thanks at the end of the programme.

## **6. Specialized Training Programmes and National Workshops**

### **6.1. Two-day Training Programme on Latest Trends in Library and Information Science for LIS Teachers of North East India, INFLIBNET Centre, Gandhinagar, 15<sup>th</sup> -16<sup>th</sup> April, 2016**

Two-day Training Programme on Latest Trends in Library and Information Science for LIS Teachers of North-East India was organized at INFLIBNET Centre, Gandhinagar from 15<sup>th</sup> to 16<sup>th</sup> April, 2016. Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre coordinated the programme. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the programme. 27 participants attended the programme. The training programme covered theoretical and practical sessions on the following topics related to latest trends in library and information science.

<b>Topics</b>	<b>Name of the Expert</b>
Thesaurus to Ontology: An Overview of Developments in Classification & Knowledge Organization	Prof. K S Raghavan, Retired Professor DRTC, Bangalore
E-Learning: Content Creation and Hosting using MOOC	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Institutional Repository and Anti-Plagiarism	Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre
INFLIBNET Activities and Services	Dr. Jagdish Arora, Director, INFLIBNET Centre

Interpersonal Skills for LIS Professionals	Dr.Usha Munshi, Librarian, IIPA, Delhi
Emerging Technology in LIS with Reference to Use of Social Networks and ICT Tools in Teaching-Learning	Dr.Usha Munshi, Librarian, IIPA, Delhi
Content Management System: Tools and Software	Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre
Bibliometric Tools and Techniques	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre

## 6.2. Three-Day National Workshop on Metadata Standards: Retrospective Conversion, Preservation, Harvesting and Migration, INFLIBNET Centre, Gandhinagar, 16<sup>th</sup>-18<sup>th</sup> May, 2016

Three-day National Workshop on Metadata Standards: Retrospective Conversion, Preservation and Migration was organized at INFLIBNET Centre, Gandhinagar from 16<sup>th</sup> to 18<sup>th</sup> May, 2016. Mrs. Vaishali Shah, Scientist B (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the Workshop. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the workshop. 11 participants attended the Workshop. The National Workshop covered theoretical and practical sessions on the following topics related to metadata standards.

Topics	Name of Expert and Institution
INFLIBNET Activities and Services	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Importance of Metadata and Overview of Metadata Standards	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Understanding MARC21, MARCXML and Dublin Core	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Retrospective Conversion: Introduction, Need, Scope, Planning, Method & Steps: Hands-on Practice	Mrs. Vaishali Shah, Scientist B (LS), INFLIBNET Centre
Retrospective Conversion of Metadata (Books and Journal Articles) using ISISMARC	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Insights for Converting Multilingual Bibliographic Data	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
"Hands-On" Demonstration: Copy Cataloguing and XL2MARCXML Utility Developed by the INFLIBNET Centre	Mr. Divyakant Vaghela, Scientist B (CS), INFLIBNET Centre
Data Migration between CSV to ISO 2709 CCF and MARC using MARCEdit	Dr. G. K. Manjunath, Chief Librarian, IGIDR, Mumbai
Understanding Metadata Harvesting & Preservation	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre

### 6.3. National Workshop on MOOCs, INFLIBNET Centre, Gandhinagar, 24<sup>th</sup> May 2016

The National Workshop on MOOCs was organized by the University Grants Commission (UGC) at INFLIBNET Centre, Gandhinagar on 24<sup>th</sup> May 2016. The objective of the Workshop was to re-purpose e-content developed under e-PG Pathshala, into MOOCs compliant format. Dr. Jagdish Arora, Director, INFLIBNET welcomed the dignitaries on the dais as well as guests and participants. He presented an outline and the agenda of the Workshop. Dr. (Mrs) Pankaj Mittal, Additional Secretary, UGC briefed about content developed under e-PG Pathshala and nuances of making it MOOC compliant. Prof. H Devaraj, Vice Chairman, UGC inaugurated the Workshop. In his inaugural address, he briefly outlined revolutionary developments that are taking place in the area of e-content development and delivery by major players like MIT, EdX, Coursera, etc. He also stressed upon the fact that content developed under e-PG Pathshala would have international exposure through SWAYAM. As such, the SMEs are expected to deliver high-quality e-content. Prof. Uma Kanjilal, DLIS, IGNOU and Mr. Pradeep Kaul, Senior Consultant, NME-ICT, MHRD also shared their views. Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre extended a warm vote of thanks. More than 125 subject experts from across the country attended the Workshop. Representative from NCERT, NIOS and multimedia vendors also attended the Workshop.



Fig.50: Dr. Jagdish Arora, Director, INFLIBNET Centre, Dr. (Mrs) Pankaj Mittal, Additional Secretary, Prof. H Devaraj, Vice Chairman, UGC, Prof. Uma Kanjilal, DLIS, IGNOU and Mr. Pradeep Kaul, Senior Consultant, NME-ICT, MHRD on the Dais and Participants during Inaugural Session of National Workshop on MOOCs at INFLIBNET Centre, Gandhinagar

#### 6.3.1. Technical Sessions

Dr. (Mrs.) Pankaj Mittal was Conference Director. Mr. Pradeep Kaul chaired the technical session- I. The session had the following three presentations:

- a) "Guidelines for re-positing of e-Content: Role of Academician and Multimedia" by Dr. Pankaj Mittal and Mr. Abhishek Kumar. This presentation was focused on basic introduction to the MOOCs and how to re-purpose the e-PG Pathshala content into MOOC compliant format. The presenters also gave a checklist for each module and course along with steps to be taken for re-

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purposing the content. The presenters also demonstrated a dummy site that showed e-PG Pathshala content on 'ICT for Libraries', repurposed and made complaint to MOOCs.

- b) "Experience of re-purposing e-Content into MOOC" by Dr. G S Bajpai, Registrar, National Law University. Dr Bajpai demonstrated MOOC platform called WizIQ. He re-purposed one of the modules of 'Law' and uploaded the same on WizIQ platform.
- c) "Experience of re-purposing e-Content into MOOC" by Dr.Vimal Rarh, Assistant Professor, Khalsa College, Delhi. She demonstrated content hosted on Moodle. She also explained efforts that are required for re-purposing the content.

Prof. Uma Kanjilal chaired the technical session-II. Dr Andrew Thangaraj, Professor, IIT Madras, presented his experience on NPTEL MOOC. He also shared the features and functionalities of NPTEL MOOC.

The vendors, empaneled for multimedia work for e-PG Pathshala, were given a chance to interact with the participants and speak about roles that multimedia vendors can play in this endeavour. Empaneled vendors shared their experiences and selected works done by them on multimedia enrichment of content and video recording.

### **6.3.2. Open Discussions**

Open discussions were part of both technical sessions. Most of the SMEs cleared their doubts about the SWAYAM. Questions were asked about the regulation of course, timeline, payment, affiliation of universities / institutes in case of paper coordinators who either belonged to private institutes or retired. The member of Sub-committee answered all the questions to SMEs.

### **6.4. Advanced Training Programme on Bibliometric and Research Output Analysis, INFLIBNET Centre, Gandhinagar, 13<sup>th</sup>-17<sup>th</sup> June, 2016**

The INFLIBNET Centre organized Advanced Training Programme on Bibliometrics and Research Output Analysis from 13<sup>th</sup> to 17<sup>th</sup> June, 2016 at INFLIBNET Centre, Gandhinagar. Mr. Manoj Kumar K., Scientist D (CS) lighted the ceremonial lamp along with Mr. H. G. Hosamani, Scientist C (LS), Ms. Kruti Trivedi, Scientist B (LS) and Mr. Hitesh Solanki, Scientist B (CS), INFLIBNET Centre during the inaugural function. The aim of the training programme was to impart training on bibliometric methods, performance indicators and tools and techniques of bibliometric analysis and mapping. Details of lectures delivered by the experts during the training programme are given below.

Topics	Name of Expert and Institution
Research impact metrics: calculation & context	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Tools and Techniques (Bibexcel) (demonstration)	Ms. Kruti Trivedi, Scientist B (LS) & Mr. Hiteshkumar Solanki, Scientist B (CS), INFLIBNET Centre
Bibliometrics Elements and Laws, Mathematical Foundation of Bibliometrics / Scientometrics	Prof. I K Ravichandra Rao, Professor, PES Institute of Technology
Scopus & SciVal (Demonstration)	Ms. Tahseen Afroz, Scopus
Academic identity with reference to Orchid ID	Mr. P. Kannan, Scientist C (LS), INFLIBNET Centre
Web of Science & Incites (Demonstration)	Mr. Abhishek Kohli, Thomson Reuters
Indian Citation Index (Demonstration)	Mr. Mandar Manohar Gosavi, Indian Citation Index
Tools and Techniques (VOS Viewer) (demonstration)	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Tools and Techniques Part V (Sci <sup>2</sup> ) (demonstration)	Mr. Hiteshkumar Solanki, Scientist B (CS), INFLIBNET Centre
Rankings of University based on Research Performance	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Altmetrics	Mr. Pallab Pradhan, Scientist B (LS), INFLIBNET Centre

Mrs. Pallavi, Project Officer (LS), Mrs. Deepti S. Pandey, Mr. Kumar Gaurav and Mr. Santosh Sen, Project Associates (LS) were resource persons in practical sessions of the training programme. The certificates of participation were distributed at the end of programme. 33 participants, including LIS professionals and research scholars, attended the programme. Mr. H. G. Hosamani, Scientist C (LS) extended a warm vote of thanks to participants, faculty and publishers.

#### **6.5. Three-day National Workshop on Creating and Managing Digital Libraries using E-Prints, INFLIBNET Centre, Gandhinagar, 10<sup>th</sup> -12<sup>th</sup> August, 2016**

Three-day National Workshop on Creating and Managing Digital Libraries using E-Prints was organized at INFLIBNET Centre, Gandhinagar from 10<sup>th</sup> to 12<sup>th</sup> August, 2016. Mr. Raja V., Scientist B (CS) and Mrs. Vaishali Shah, Scientist B (LS), INFLIBNET Centre coordinated the Workshop. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the Workshop. Mr. Raja, V briefed about Workshop and Mrs. Vaishali Shah extended a warm vote of thanks. 10 participants attended the Workshop. The National Workshop covered theoretical and practical sessions on various topics related to E-Prints are given below.

<b>Topics</b>	<b>Name of Expert and Institution</b>
INFLIBNET Activities and Services	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Institutional Repositories: a Primer	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Metadata Standards and Institutional Repositories	Mrs. Vaishali Shah, Scientist B (LS), INFLIBNET Centre
Introduction to Linux and Understanding File System Layout, Creation Of User and Group, and Basic Commands	Mr. Divyakant Vaghela, Scientist B (CS), INFLIBNET Centre
Understanding E-Prints (Features, Statistics, Bazaar, Altmetrics, etc.)	Mr. Madhan M, IISc, Bangalore
Hands-On Session : Creation of IR using E-Prints and Installation	Mr. Raja V, Scientist B (CS), INFLIBNET Centre
Hands-On session : E-Prints Administration	Mr. Hitesh Solanki, Scientist B (CS), INFLIBNET Centre
Hands-On session : E-Prints Submission	Mrs. Vaishali Shah, Scientist B (LS), INFLIBNET Centre
Hands-On session : Advanced configuration	Mr. Raja V, Scientist B (CS), INFLIBNET Centre and Mr. Madhan M, IISc, Bangalore
Hands-On Session : Maintenance, Backup and Restore	Mr. Swapnil Patel, Scientist B (CS), INFLIBNET Centre

#### **6.6. Five-day National Workshop on Cloud Computing, Virtualization and Network Management, INFLIBNET Centre, Gandhinagar, 29<sup>th</sup> August- 2<sup>nd</sup> September, 2016**

The INFLIBNET Centre organized three-day National Workshop on Cloud Computing, Virtualization and Network Management from 29<sup>th</sup> August to 2<sup>nd</sup> September, 2016. Mr. Manoj Kumar K, Scientist D (CS) and Mr. Gaurav Prakash, Scientist B (CS) coordinated the Workshop. The purpose of the Workshop was to impart a better understanding of the network architecture, design, management, concept of virtualization, its benefits and uses, concept of cloud computing and its applications. It also provided a platform to gain “hands-on” experience on cloud computing and network management. Mr. Gaurav Prakash, Scientist B (CS) from INFLIBNET Centre served as resource person for the Workshop. 4 participants took part in the Workshop.

#### **6.7. Three-day National Workshop-Cum-Training Programme on DSpace, Mizoram University, Mizoram, 6<sup>th</sup>-8<sup>th</sup> September, 2016**

Three-day National Workshop-Cum-Training Programme on Dspace was organized by Mizoram University, Aizawl in collaboration with INFLIBNET Centre, Gandhinagar from 6<sup>th</sup> to 8<sup>th</sup> September,



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2016 at Mizoram University, Aizawl. Prof. R. N. Mishra, Head, DLIS welcomed the guest and participants. Prof. R. Lalthantluanga, Vice-Chancellor inaugurated the programme in presence of Prof. Pravakar Rath, Dean, School of Economics, Management and Information Science, Prof. R. N. Mishra, Head, Prof. R. K. Ngurtinkhuma, & Dr. Manoj Kumar Verma, Assistant Professor, DLIS, Mizoram University and Mr. Swapnil Patel, Scientist B (CS), INFLIBNET Centre. In his inaugural address, Prof. Lalthantluanga stressed upon the requirement of organizing more training programmes to make LIS professionals more advanced and capable. He also mentioned the major initiatives taken by the University for academic development and congratulated the department for organizing such training programmes regularly. Prof. R. K. Ngurtinkhuma highlighted the initiatives taken by the Department for library professionals' development in the North-East Region as well as for the country. Prof. Pravakar Rath pointed out the significance of digitization, digital library software and use of digital media in the LIS profession to serve user community in a better way. Mr. Swapnil Patel briefed about Dspace and its use, benefits and usage of the software by various stakeholders. He also shared role of INFLIBNET Centre in the training and development of institutional repository using Dspace in India. Dr. Manoj Kumar Verma, Coordinator of the Workshop extended a warm vote of thanks at the end of the inaugural session. 35 participants attended the programme. Dr. Vinit Kumar, Assistant Professor, Dr. Ranganathan Institute of Library & Information Science, Bundelkhand University, Mr. Swapnil P Patel, Scientist B (CS) and Mr. Vijay Shrimali, STA (CS), INFLIBNET Centre were resource persons for theoretical and practical sessions.

During the valedictory session, Prof. Lalnundanga, Director, UGC-HRDC, Mizoram University was the Chief Guest. He shared his views on Dspace, digitization, institutional repository, and its significance in the society and lastly congratulated to the department and organizers for having such kind of training programmes. Dr. Akhandanand Shukla, Assistant Professor and Workshop Co-coordinator presented the report of the Workshop in detail. Prof. S. N. Singh, DLIS delivered concluding remarks and encouraged participants to participate in such kinds of programmes for get more technical knowledge. Prof. Pravakar Rath, Dean, SEMIS, in his presidential address, acknowledged the support given by INFLIBNET Centre in terms of finances and human resources. He stressed upon the requirement of additional infrastructure for organization of such programmes/Workshops. Dr. Manoj Kumar Verma, Assistant Professor, DLIS & Workshop Coordinator extended a warm vote of thanks at the end of the valedictory session.

#### **6.8. Three-day National Workshop-Cum-Training Programme on DSpace, Gauhati University, Guwahati, 27<sup>th</sup>-29<sup>th</sup> September, 2016**

On the occasion of Golden Jubilee of DLIS, Gauhati University, three-day National Workshop-Cum-Training Programme on Dspace was organized by the Department of Library and Information Science, Gauhati University, Guwahati in collaboration with INFLIBNET Centre, Gandhinagar from 27<sup>th</sup> to 29<sup>th</sup> September 2016 at Gauhati University, Guwahati. Prof. Sanjay Kumar Singh, Lecturer, DLIS and Coordinator of the programme, welcomed the guests and participants. Prof Hari Prasad Sarma, Rector, Gauhati University inaugurated the programme. In his inaugural speech, he

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complemented everyone in the Department for completion of 50 years of its existence in September 2016. Dr. Suresh Kumar Nath, Registrar discussed the use of library and activities of the INFLIBNET Centre. Prof. P. J. Das, Director (I/c) of IDOL also discussed about the achievements of the department during the last fifty years. Prof R K Barman, DLIS recalled how department has strived through the limitation of infrastructure facilities in the past. Prof. Narendra Lahkar spoke about various issues and challenges that the department had faced during the last 50 years. He requested the INFLIBNET Centre to set up a well-equipped computer lab for conducting such type of training programmes and workshops in Gauhati University to facilitate the services to the library professionals of the region. Dr. Tilak Hazarika, DLIS extended a warm vote of thanks to all the dignitaries and the participants. Mr. Swapnil Patel & Mr. Hitesh Solanki, Scientists B (CS) and Mr. Vijay Shrimali, STA (CS), INFLIBNET Centre were resource persons for theoretical and practical sessions. 33 participants attended the programme.

**6.9. Training Programme on N-LIST using A-View Classroom Software, INFLIBNET Centre, Gandhinagar, 13<sup>th</sup> October, 2016**

The INFLIBNET Centre organised training programme on N-LIST using A-View Classroom Software to demonstrate e-resources available under N-LIST programme, process of joining, method of access, etc. to the students and faculty members of the Govt. E.V.P.G. College, Korba on 13<sup>th</sup> October, 2016. Ms. Kruti Trivedi, Scientist B (LS) and Mrs. Roma Asnani, STA (LS), INFLIBNET Centre were resource persons. More than 40 participants attended the programme.

**6.10. Two-day National Workshop on Capacity Building of LIS Professionals in Using Open Journal System (OJS) for e-Publishing, Tata Institute of Social Sciences, Mumbai, 18<sup>th</sup>-19<sup>th</sup> November, 2016**

Two-day National Workshop on Capacity Building of LIS Professionals in Using Open Journal System (OJS) for e-Publishing was jointly organized by Centre for Library and Information Management Studies (CLIMS), Tata Institute of Social Sciences, Mumbai and INFLIBNET Centre, Gandhinagar from 18<sup>th</sup> to 19<sup>th</sup> November, 2016. The purpose of the Workshop was to develop expertise by providing a thorough training and hands-on experience on Free and Open Source Software (FOSS) in general and particularly on e-publishing platform, Open Journal System (OJS). This Workshop intended to equip participants with skills for developing their own e-publishing platform through intensive hands-on training sessions by experts in the field. Around 30 participants including LIS professionals, content manager, senior executives in private organisation and R&D institutions participated in the programme. Dr. Mallikarjun Angadi, Chairperson, CLIMS, TISS coordinated the programme and welcomed the guests and participants. Prof. Surinder Jaswal, Deputy Director, Tata Institute of Social Sciences, Mumbai inaugurated the Workshop. In her inaugural address, she said that TISS, as one of the premier institutes in the country, has always responded to the needs of the society in terms of offering quality higher education to the pupils. She wished all the participants to gain as much knowledge as possible from this unique Workshop and assured all possible help to



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conduct many more such workshops useful to LIS professionals in future. Prof. M Mariappan, Chairperson, Centre for Hospital Administration, School of Health System Studies, TISS was the Chief Guest for the concluding and certificate distribution function. Dr. Mallikarjun Angadi, Chairperson, CLIMS, Dr. J. Shivarama, Asst. Professor, CLIMS and Mr. Gaurav Prakash, Scientist B (CS), INFLIBNET Centre were the resource persons.

#### **6.11. Two-day National Workshop on Content Management Systems and Library Software Applications, Sikkim University, Gangtok, 28<sup>th</sup> -30<sup>th</sup> November, 2016**

Two-day National Workshop on Content Management Systems and Library Software Applications was organised by Sikkim University in collaboration with INFLIBNET Centre, Gandhinagar at Teesta-Indus Central Library, Sikkim University, Gangtok from 28<sup>th</sup> to 30<sup>th</sup> November, 2016. Prof. A S Chandel, Librarian coordinated the programme. Ms. Sarbada Pradhan, Assistant Librarian delivered welcomed address. Prof. T B Subba, Vice-Chancellor inaugurated the programme in presence of Mr. T K Kaul, Registrar, Dr. Debashish Chawdhury, Controller of Examinations, Prof. A S Chandel, Librarian, Sikkim University and Dr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre, Gandhinagar. In his inaugural address, Prof. Subba emphasized that useful contents should be created and made available for wider access. He also emphasized that technology is a tool and should be used only as a tool. Prof. A S Chandel, in his introductory address, emphasized the need for organising this workshop for library professionals of the state to update them with the advances in information technology and thanked Director, INFLIBNET for sponsoring this Workshop. He highlighted the importance of creation of digital resources in the present digital era that needs concerted efforts by various institutions.

On this occasion, Prof. T B Subba, Vice-Chancellor launched Library Website developed using Wordpress, an open source CMS platform, designed by Mr. AdipTirwa, Technical Assistant, Central Library, Sikkim University under the guidance of the Librarian. Dr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre was the resource person. He made presentation on Joomla and INFLIBNET's Activities and Services. Around 37 participants from different cities of Sikkim participated in the programme. Mr. Manish Soni, Information Scientist, Sikkim University extended a warm vote of thanks.

In the valedictory Session, Mr. Jitendra Singh Raje, IAS, Director, Higher Education, Govt. of Sikkim was the chief guest. In his address, he talked on importance of e-content and content creation. He also mentioned that he would initiate advanced library system in colleges of Sikkim very soon.

#### **Three-Day Advanced Training Programme on Shodhganga, INFLIBNET Centre, Gandhinagar, 14<sup>th</sup> -16<sup>th</sup> December, 2016**

Three-day Advanced Training Programme on Shodhganga was organised at INFLIBNET Centre, Gandhinagar from 14<sup>th</sup> to 16<sup>th</sup> December, 2016. Mr. Manoj Kumar K. Scientist D (CS) and Ms Suboohi

S, STO (LS) coordinated the programme. Prof. Krishna Amin-Patel, Centre Head, PG Campus, National Institute of Design (NID), Gandhinagar inaugurated the programme by lighting the ceremonial lamp. In her inaugural address, she emphasized the importance of research and ETDs and plagiarism detection software and services provided by the INFLIBNET Centre. Mr. H. G. Hosamani, Scientist C (LS) extended a warm vote of thanks. Around 25 participants participated in the workshop. The Workshop covered theoretical and practical sessions on the following topics related to Shodhganga are given below.

Topics	Name of Expert and Institution
International ETD Programmes/ Projects: An overview	Dr. T. S. Kumbar, Librarian, IIT Gandhinagar
Introduction to Shodhganga/ Shodhgangotri and Overview of UGC Guidelines	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Standards and Formats for Digitization	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Introduction to DSpace and Building IR	Mr. Swapnil Patel, Scientist B (CS), INFLIBNET Centre
Institutional Repositories (IR) and Altmetrics	Mr. Pallab Pradhan, Scientist B (LS), INFLIBNET Centre
Implementation of National Federated Access Management Solution for Consortium based Access to E-Resources	Mr Raja V., Scientist B (CS), INFLIBNET Centre
Anti-Plagiarism Tools and Services and Hands-on Practice	Ms. Suboohi S, STO (LS), INFLIBNET Centre

In the valedictory function, members of the Hindi Samiti were invited as special guests for the programme. Dr. (Mrs.) Pankaj Mittal, Additional Secretary, UGC and Former Vice Chancellor, B.P.S. Mahila Vishwavidyalaya delivered the valedictory address and along with Prof. Ram Bux, Department of Hindi, Jawaharlal Nehru University (JNU), Dr. Kumud Sharma, University of Delhi and Dr. Jagdish Arora, Director, INFLIBNET Centre. The invited guests distributed certificates to the participants at the end of the programme.

#### **6.12. Three-day National Workshop on Data and Statistical Analysis using R Programming, INFLIBNET Centre, Gandhinagar, 19<sup>th</sup> – 21<sup>st</sup> December, 2016**

Three-day National Workshop on Data and Statistical Analysis using R Programming was organised at INFLIBNET Centre, Gandhinagar from 19<sup>th</sup> to 21<sup>st</sup> December, 2016. Mr. Hitesh Solanki, Scientist B (CS), Mr. Divyakant Vaghela, Scientist B (LS) and Mr. H G Hosamani, Scientist C (LS) coordinated the programme. Dr. Jagdish Arora, Director lighted the ceremonial lamp along with Mr. Manoj Kumar K., Scientist D (CS), Mr. Hitesh Solanki, Scientist B (CS), Mr. Divyakant Vaghela, Scientist B (LS),

INFLIBNET Centre during the inaugural function. The aim of this Workshop was to provide basic training in understanding the concepts in data science and statistical analysis using R programming. The R programming language is one of the most widely used programming languages among the data scientists and researchers. It is open source software and allows integration with other applications. Theoretical sessions were conducted during the Workshop are given below.

Topics	Name of Expert and Institution
INFLIBNET Activities and Service	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Introduction to R programming (Installation, getting Started R, Tinn-R, Rcommander, RStudio)	Mr. Divyakant Vaghela, Scientist B (CS), INFLIBNET Centre
Data Types in R (Constants, vectors, matrix, dataframes, lists)	Ms. Mitisha Vaidya, Project Officer (CS), INFLIBNET Centre
Importing and handling data in R	Mr. Hitesh Solanki, Scientist B (CS), INFLIBNET Centre
Introduction to R programming (Working with functions, summary measures)	Dr. R. D. Chaudhari, Associate Professor, M G Science Institute, Ahmedabad
Statistical Analysis using R (Hypothesis Testing: Parametric and Non-parametric)	Dr. Dharmesh Raykundaliya, Assistant Professor, Sardar Patel University, Anand
Statistical Analysis using R (Correlation and Linear Regression Modelling)	Dr. R. D. Chaudhari, Associate Professor, M G Science Institute, Ahmedabad
Statistical Analysis using R (Probability Distributions)	Dr. Dharmesh Raykundaliya, Assistant Professor, Sardar Patel University, Anand
Statistical Analysis using R (Analysis of Variance : Linear Model)	Dr. Dharmesh Raykundaliya, Assistant Professor, Sardar Patel University, Anand
Data Visualization using R : Base, Lattice and ggplot packages	Dr. R. D. Chaudhari, Associate Professor, M G Science Institute, Ahmedabad
Reproducible Research using R and Rstudio (knitr and markdown packages)	Dr. R. D. Chaudhari, Associate Professor, M G Science Institute, Ahmedabad

Mr. Hitesh Solanki and Mr. Divyakant Vaghela, Scientists B (CS), Ms. Mitisha Vaidya, Project Officer (CS) and Ms. Tulsi Punjani, Project Assistant (Statistics) were resource persons in practical sessions of the training programme. The certificates of participation were distributed at the end of programme. Around 20 participants including IT professionals, LIS professionals and research scholars attended the programme. Mr. H. G. Hosamani, Scientist C (LS) extended a warm vote of thanks at the end of the Workshop.

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#### **6.13. Five-day Training Programme on Creation and Management of Digital Collections using DSpace, INFLIBNET Centre, Gandhinagar, 30<sup>th</sup> January-3<sup>rd</sup> February 2017**

Five-day Training Programme on Creation and Management of Digital Collections using DSpace was organised at INFLIBNET Centre, Gandhinagar from 30<sup>th</sup> January to 3<sup>rd</sup> February, 2017. Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre coordinated the Workshop. The Workshop aimed at addressing various issues related to customisation and management of DSpace for existing DSpace user who may need more insights, and in-depth knowledge on how to further enhance the usage, its maintenance and customization, with theoretical lectures and hands-on training by experts. 3 participants from NASDO, Indian Navy, Goa participated in the Workshop. Mr. Swapnil Patel, Scientist B (CS), Mr. Vijay Shrimali, STA (CS) and Mr. Nrutik Prajapati, Project Officer (CS) from INFLIBNET Centre served as resource persons for the Workshop.

#### **6.14. Half-day Workshop on Preparing Qualitative Data for Sharing and Reuse, INFLIBNET Centre, Gandhinagar, 6<sup>th</sup> March, 2017**

Half-day Workshop on Preparing Qualitative Data for Sharing and Reuse was organised at INFLIBNET Centre, Gandhinagar on 6<sup>th</sup> March 2017. Ms. Louise Corti, Associate Director, UK Data Archives inaugurated the Workshop. Dr. Jagdish Arora, Director, INFLIBNET Centre briefed about importance of preparing qualitative data and initiative taken by INFLIBNET Centre in collaboration with ICSSR. Mr. Yatrik Patel, Scientist D (CS) gave a brief introduction about the scope of the Workshop. 27 participants from well-known Social Science Organisations such as Gokhale Institute of Politics and Economics, Pune, Central University of Gujarat, Gandhinagar, Gujarat Institute of Development Research, Ahmedabad and Sardar Patel Institute of Economic & Social Research, Ahmedabad attended the Workshop. Dr. Miteshkumar Pandya, Scientist B (LS) extended a warm vote of thanks at the end of the Workshop.

#### **6.15. Five-Day National Workshop on Digitization of Resources using Open Source Software EPrints, Allagappa University, Karaikudi, 6<sup>th</sup> -10<sup>th</sup> March, 2017**

Five-day National Workshop on Digitization of Resources Using Open Source Software Eprints was organised by Alagappa University in collaboration with INFLIBNET Centre, Gandhinagar from 6<sup>th</sup> to 10<sup>th</sup> March 2017 at University Business Collaboration Centre, DLIS, Alagappa University, Karaikudi. Dr. S. Thanuskodi, Professor and Head and Dr. R. Jeyshankar, Assistant Professor, DLIS coordinated the programme. Dr. S. Thanuskodi welcomed the guests and participants. He gave brief introduction about the Workshop. Dr. P. Subas Chandra Bose, Member of Syndicate, Alagappa University inaugurated the Workshop. In his inaugural speech, he stated that the library is like the human heart in the university system that has to be kept pure and healthy and these kinds of Workshops provide adequate strength to make it function effectively. He had a word of praise for the Department of Library and Information Science, as it has obtained the third position among 120

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LIS Departments in India, because of its research contributions indexed in Scopus Database during 2012-16.

Mr. P. Kannan, Scientist C (LS), INFLIBNET Centre delivered keynote address. He discussed the importance of the emerging areas in the Library and Information Services such as, Community Survey, Measuring for Improvement and Assessment, Open Access and Open Education Resources, Open Researcher and Contributor ID, etc.

Dr. K. Manimekalai, Dean, Faculty of Arts, Alagappa University, in her felicitation address, appealed to the library and information professionals to ensure that every one in India gets equal access to information. She added that it is the duty and responsibility of higher educational institutions to make India an Asian Knowledge Hub. Dr. M. Nagarajan, Professor and Head, DLIS & Dean, Faculty of Arts, Annamalai University, said that today information society has turned into a knowledge society and highlighted how traditional libraries are being gradually replaced by e-libraries.

Mr. Kannan P. Scientist C (LS), Mr. V. Raja, Scientist B (CS), INFLIBNET Centre, Mr. M Madhan, Indian Institute of Science, Dr. P. Thiyagarajan, Head (I/C), Department of Computer Science, Central University of Tamil Nadu, Dr. M. Sadik Batcha, Associate Professor, LIS, Annamalai University and Dr. S. Swaminathan, Librarian, Sri Ramakrishna Mission Vidyalyaya College of Education served as resource persons. Theoretical lectures were followed by "hands-on" practice on the same modules by the participants. 40 working librarians from Southern States of Karnataka, Andhra, Telengana and Kerala attended the Workshop. Dr. R. Jeyshankar, Assistant Professor, DLIS extended a warm vote of thanks at the end of the Workshop.

#### **6.16. Five-Day National Workshop on Digitization of Resources using Open Source Software DSpace, Central University of Tamil Nadu, Thiruvavur, 20<sup>th</sup>-24<sup>th</sup> March, 2017**

Five-day National Workshop on Digitization of Resources Using Open Source Software DSpace was organised by Central University of Tamil Nadu in collaboration with INFLIBNET Centre, Gandhinagar from 20<sup>th</sup> to 24<sup>th</sup> March 2017 at Administration Block, Central University of Tamil Nadu, Thiruvavur. Dr. P. Thiyagarajan, Head (I/C), Department of Computer Science coordinated the programme and delivered welcomed address during inaugural session. Dr. G. Aghila, Senior Professor, Department of Computer Science and Engineering, National Institute of Technology, Puducherry inaugurated the programme. In her inaugural address, she stressed upon the importance of digitization of resources in educational institutes and advised the participants to utilise this Workshop effectively. Dr. S. Bhuvaneswari, Registrar, Central University of Tamil Nadu, Thiruvavur delivered felicitation address. She emphasised that digitization will reduce paper work, improve work efficiency and save time. Prof. A. P. Dash, Vice-Chancellor, Central University of Tamil Nadu delivered presidential address. In his address, he highlighted the importance of the workshop and emphasised that this Workshop is one of the contributions from Central University of Tamil Nadu towards Digital India Campaign launched by the Prime Minister of India. Mr. P. Kannan, Scientist C (LS), INFLIBNET Centre delivered keynote address. In his keynote address, he discussed about role of digital library in

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the scholarly communication system. He stressed upon the fact that electronic resources and open educational resources are increasingly creating and supporting the research and academic community.

During the technical sessions, Dr. G. Aghila, Senior Professor, National Institute of Technology, Puducherry, Mr. P. Kannan, Scientist C (LS), INFLIBNET Centre, Dr. P. Thiagarajan, Head, Department of Computer Science, Dr. G. Velumani, Assistant Librarian, CUTN, Dr. Elavazhagan K, Chief Knowledge Officer, Learning Resource Centre, IIM Trichy, Dr. B. Jeyapragash, Assistant Professor, DLIS, Bharathidasan University served as experts. Theoretical lectures were followed by “hands-on” practice on the same modules by the participants. 34 participants attended the Workshop.

During the valedictory session, Dr. T. Sengadir, Professor and Head, Department of Mathematics, Central University of Tamil Nadu was Chief Guest. In his address, he stressed upon the importance of digitisation in the current e-world and asked the participants to implement the DSpace software, which they learned in the Workshop, in their respective institutions. The guest of honour was Dr. S. Vijayaraghavan, Professor and Head, DLIS, Bharathidasan University, Tiruchirappalli. In his address, he emphasised the need for such Workshop in the digital world. Dr. T. Sengadir and Dr. S. Vijayaraghavan distributed certificates to all the participants. Dr. P. Thiagarajan extended a warm vote of thanks at the end of the Workshop.

#### **6.17. 3<sup>rd</sup> Workshop on SWAYAM Prabha, BISAG, Gandhinagar, 25<sup>th</sup> January, 2017**

3<sup>rd</sup> Workshop on SWAYAM Prabha was organised by BISAG in collaboration with INFLIBNET Centre on 25<sup>th</sup> January 2017 at BISAG Gandhinagar. The main agenda of the Workshop was to review present status of each channel, Volume of content available for each channel, verification of quality of content/pedagogy, production of content, transportation of channels to BISAG, channel logo, SWAYAM PRABHA Portal, mobile app, feedback mechanism, etc. The discussions were steered by the Additional Secretary (TE), MHRD. Besides reviewing the status of all the 32 channels and working out the future course of action, one of the purpose of holding the Workshop at BISAG was that the National/Channel coordinators and the person technically responsible for producing the channel in the local studio of each channel gets an opportunity to see the uplinking facility and the associated equipment at BISAG. 31 channel coordinators participated in the Workshop.

#### **6.18. International Conference on Library and Information Services in Knowledge Society: Innovative, Value Added Services and Best Practices, Mizoram University, Aizawl, 1<sup>st</sup>- 3<sup>rd</sup> March, 2017**

International Conference on Library and Information Services in Knowledge Society: Innovative, Value Added Services and Best Practices was organised by the Department of Library and Information Science, Mizoram University, Aizawl in collaboration with North-East Council, Shillong;

Indira Gandhi National Centre for the Arts, New Delhi; Indian Council of Social Science Research, New Delhi; Raja Rammohan Library Foundation (Ministry of Culture) Kolkata; Information and Library Network (INFLIBNET Centre), Gandhinagar and National Digital Library (MHRD), Indian Institute of Technology, Kharagpur at Auditorium Hall, Mizoram University, Aizawl during 1<sup>st</sup> to 3<sup>rd</sup> March, 2017. Prof. R N Mishra, Head, DLIS, Mizoram University and Organising Secretary welcomed the guests and participants. Prof. Lianzela, Hon'ble Vice-Chancellor, Mizoram University inaugurated the function by lighting the ceremonial lamp along with Dr. H. K. Kaul, Director, Developing Library Network, New Delhi, Ms. Anjana H. Bhatt, University Librarian, Florida Gulf Coast University Library, USA, Mr. Pu C. Zothunkhuma, Registrar, Mizoram University, Prof. Pravakar Rath, Conference Director and Prof. R N Mishra, Head, DLIS, Mizoram University. 45 out of 64 papers submitted were presented during the conference. More than 150 delegates including international delegates from USA, Germany, Singapore, Bangladesh, Bhutan, Indonesia, Nigeria, Myanmar as well as delegates from different parts of India such as Kolkata, Chennai, Mumbai, Ahmadabad, Bhubaneswar, Varanasi, Guwahati, Tezpur, Silchar, Agartala, Aizawl, Shillong, etc. attended the Conference. Prof. R K Ngurtinkhuma, DLIS, Mizoram University and Joint Organising Secretary extended a warm vote of thanks at the end of the conference.

## **7. National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel**

### **7.1. 4<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, INFLIBNET Centre, Gandhinagar, 25<sup>th</sup>-29<sup>th</sup> April, 2016**

4<sup>th</sup> Five-day National Workshop on Capacity Building Programme of the National Mission on Libraries for Public Library Personnel was organized at INFLIBNET Centre, Gandhinagar from 25<sup>th</sup> to 29<sup>th</sup> April, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the programme. 33 participants attended the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme are given below:

<b>Topics</b>	<b>Name of the Expert</b>
National Mission on Libraries : An Overview	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Open Source Tools for Libraries	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Library Automation: An Overview	Dr. Jagdish Arora, Director, INFLIBNET Centre
Library Automation : Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Understanding Modern Library Standards	Mr. Dinesh R Pradhan, Scientist B (LS)



MARC and Dublin Core	INFLIBNET Centre
Library Automation: Circulation- Koha	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Multilingual information representation through Unicode for Indic Scripts	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Standards and Formats for Digitization, Digitization Process and Hands On Practice	Mr. Manoj Kumar, Scientist D (CS), INFLIBNET Centre
Use of Social Media and other Web 2.0 tools for Libraries	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Changing Roles of Public Libraries and Community based Information Services	Dr. Muttayya Koganuramath, Professor & Head, Central University Gujarat, Gandhinagar
Emerging Trends for Libraries in Context of Public Libraries	Mr. Kannan P., Scientist C (LS), INFLIBNET Centre
Introduction to e-Resources and Discovery Tools	Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre
Library Services for Specially-abled Persons	Dr. Muttayya Koganuramath, Professor & Head, Central University Gujarat, Gandhinagar
Effective Communication Skill	Dr.T S Kumbar, Librarian, IIT Gandhinagar

## 7.2. 5<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, INFLIBNET Centre, Gandhinagar, 9<sup>th</sup>-13<sup>th</sup> May, 2016

5<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel was organized at INFLIBNET Centre, Gandhinagar from 9<sup>th</sup> to 13<sup>th</sup> May, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Mr. Ashok Kumar Rai, Scientist D (CS) inaugurated the programme. 23 participants attended the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme:

Topics	Name of the Expert
National Mission on Libraries : An Overview	Mr. Kanan P, Scientist D (LS), INFLIBNET Centre
Open Source Tools for Libraries	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Multilingual information representation through Unicode for Indic Scripts	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Library Automation: Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre



Library Automation: Overview	Mr. Pallab Pradhan, Scientist B (LS), INFLIBNET Centre
Library Automation: Circulation-Koha	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Understanding Modern Library Standards MARC and Dublin Core	Mr. Dinesh R Pradhan, Scientist B (LS) INFLIBNET Centre
Standards and Formats for Digitization, Digitization Process and "Hands On" Practice	Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre
Use of Social Media and other Web 2.0 tools for Libraries	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Introduction to e-resources and Discovery Tools	Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre
Library Services for Specially-abled Persons	Dr. Muttayya Koganuramath, Professor & Head, Central University Gujarat, Gandhinagar
Effective Communication Skill	Dr. T S Kumbar, Librarian, IIT Gandhinagar

**7.3. 6<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, Era's Lucknow Medical College & Hospital, Lucknow, 23<sup>rd</sup>-27<sup>th</sup> May, 2016**

6<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel was organized by Era's Lucknow Medical College & Hospital in collaboration with INFLIBNET Centre, Gandhinagar at Era's Lucknow Medical College & Hospital, Lucknow from 23<sup>rd</sup> to 27<sup>th</sup> May, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Dr. (Prof.) Kumkum Srivastava, Principal, Dean & CMS inaugurated the programme. 37 participants attended the programme. Mr. Md. Kashif Khan, Librarian, Era's Lucknow Medical College & Hospital extended a warm vote of thanks at the end of the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme:

Topics	Name of the Expert
National Mission on Libraries : An Overview	Mr. Kannan P, Scientist D (LS), INFLIBNET Centre
Library Automation: An Overview	Dr. Jyoti Mishra, Deputy Librarian, University of Lucknow
Effective Communication Skill	Mr. Kashif Khan, Librarian, Era's Lucknow Medical College & Hospital

Library Automation : Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Library Automation : Cataloguing, Circulation and OPAC-Koha	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Understanding Modern Library Standards MARC and Dublin Core	Mr. Miteshkumar Pandya, Scientist B(LS), INFLIBNET Centre
Library Automation: Circulation -Koha	Mr. H G Hosamani, Scientist C(LS), INFLIBNET Centre
Multilingual Information Representation through Unicode for Indic Scripts	Dr. Manish Kumar, Information Scientist, BHU
Standards and Formats for Digitization, Digitization Process and "Hands-On" Practice	Dr. D K Singh, Deputy Librarian, BHU, Varanasi
Library Services for Specially-abled Persons	Dr. D K Singh, Deputy Librarian, BHU, Varanasi
Changing Roles of Public Libraries and Community-based Information Services	Dr. B K Singh, Librarian, Allahabad University
Introduction to e-resources and Discovery Tools	Dr. Manish Kumar, Information Scientist, BHU
Use of Social Media and other Web 2.0 Tools for Libraries	Dr. Anjali Gulati, Asst. Professor & Head DLISc, Isabella Thoburn College, Lucknow
Social Media and Web 2.0 "Hands-On" Practice	Dr. Anjali Gulati, Asst. Professor & Head DLISc, Isabella Thoburn College, Lucknow
Emerging Trends for Libraries in Context of Public Libraries	Mr. Kashif Khan, Librarian, Era's Lucknow Medical College & Hospital, Lucknow
Open Source Tools for Libraries	Dr. U M Raja, Librarian, IIM- Lucknow

**7.4. 7<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, University of Kalyani, Kalyani, 20<sup>th</sup>-24<sup>th</sup> June, 2016**

7<sup>th</sup> Five-day National Workshop on Capacity Building Programme of the National Mission on Libraries for Public Library Personnel was organized by University of Kalyani in collaboration with INFLIBNET Centre, Gandhinagar at Department of Library and Information Science, University of Kalyani, Kalyani from 20<sup>th</sup> to 24<sup>th</sup> June, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Professor (Dr.) Malayendu Saha, Vice-Chancellor inaugurated the programme. 36 participants attended the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme:

Topics	Name of Expert and Institution
National Mission on Libraries : An Overview	Sri Anirban Biswas, System Manager, RRRLF, Kolkata
Library Automation: Overview and Open Source Tools for Libraries	Sri Abhijit Bhowmik, Librarian, State Central Library, West Bengal
Library Automation: Introduction to Koha, Configuring Koha, Acquisition Module of Koha	Dr. P.S. Mukhopadhyay, Associate Prof., DLIS, University of Kalyani
Understanding Modern Library Standards MARC and Dublin Core	Mr. H.G. Hosamani, Scientist C (LS) INFLIBNET Centre
Emerging Trends for Libraries in Context of Public Libraries	Prof. S C Biswas, DLIS, Burdwan University
Changing Roles of Public Libraries and Community-based Information Services	Prof. J K Sarkhel, DLIS, University of Kalyani
Library Automation : Cataloguing, Circulation and OPAC-Koha	Prof. P. S. Mukhopadhyay, DLIS, University of Kalyani
Use of Social Media and other Web 2.0 Tools for Libraries	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Koha – Report generation and other utilities	Prof. P. S. Mukhopadhyay, DLIS, University of Kalyani
Standards and Formats for Digitization, Digitization Process and “Hands On” Practice	Dr. D. K. Singh, Deputy Librarian, BHU
Social Media and Web 2.0 (including their applications in Library OPAC): Hands on Practice	Practical Staff lead by Dr. P.S. Mukhopadhyay and Mr.Miteshkumar Pandya
Library Services for Specially-abled persons	Dr. D. K. Singh, Deputy Librarian, BHU
Multilingual information representation through Unicode for Indic Scripts	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Introduction to e-Resources and Discovery Tools	Mr. Kannan P, Scientist C (CS), INFLIBNET Centre
Effective Communication Skills	Dr.Niladri Chatterjee, Professor, Dept. of English, University of Kalyani

**7.5. 8<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, INFLIBNET Centre, Gandhinagar, 25<sup>th</sup>-29<sup>th</sup> July, 2016**

8<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel was organized at INFLIBNET Centre, Gandhinagar from 25<sup>th</sup> to 29<sup>th</sup> July, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar

Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Mr. Manoj Kumar K, Scientist D (CS) inaugurated the programme. 30 participants attended the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme:

Topics	Name of Expert and Institution
National Mission on Libraries: An Overview	Mr. Kannan P, Scientist C (LS), INFLIBNET Centre
Open Source Tools for Libraries	Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre
Library Automation: Overview	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Library Automation: Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Emerging Trends for Libraries in Context of Public Libraries	Dr. K B Agadi, Assistant Librarian, Central University Gujarat, Gandhinagar
Understanding Modern Library Standards MARC and Dublin Core	Mr. Dinesh Pradhan, Scientist B (LS), INFLIBNET Centre
Library Automation: Cataloguing and OPAC-Koha	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Changing Roles of Public Libraries	Dr.NimeshOza, Head, DLISC, S P University
Community based Information Services	Dr.NimeshOza, Head, DLISC, S P University
Library Automation: Koha- Circulation	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Multilingual Information Representation through Unicode for Indic scripts	Mr.Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Introduction to e- Resources and Discovery Tools in Public Library Context	Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre
Standards and Formats for Digitization	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Effective Communication Skill	Dr.Lalitha Poluru, Librarian, Institute of Pharmacy, Nirma University
Digitization Process and Hands On Practice	Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre
Library Services for Specially abled persons	Dr.Muttayya Koganuramath, Professor & Head, Central University Gujarat, Gandhinagar
Use of Social Media and other Web 2.0 Tools for Libraries	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre

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**7.6. 9<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, Anna University, Chennai, 8<sup>th</sup>-12<sup>th</sup> August, 2016**

9<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel was organized by Anna University, Chennai in collaboration with INFLIBNET Centre, Gandhinagar at Anna University, Chennai, from 8<sup>th</sup> to 12<sup>th</sup> August, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Dr. S. Ganesan, Registrar, Anna University inaugurated the Workshop. 32 participants attended the programme. Mr. Miteshkumar Pandya, Scientist B (LS) extended a warm vote of thanks at the end of the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme:

Topics	Name of Expert and Institution
Integrated Library Management System: Anna University	Dr. G. Krishnamoorthy, Director, Anna University Library
National Mission on Libraries: An overview	Mr. H G Hosamani, Scientist C (LS) and Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Library Automation: Overview and Open Source Tools for Libraries	Dr. G. Rathinasabapathy, Librarian, Tamil Nadu Veterinary & Animal Science University, Chennai
Library Automation : Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Emerging Trends for Libraries in Context of Public Libraries	Dr. S. Gopalakrishnan, Former Librarian, Anna University
Understanding Modern Library Standards MARC and Dublin Core	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Library Automation: Cataloguing and OPAC-Koha	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Library Automation: Koha- Circulation	Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre
Introduction to e- Resources and Discovery Tools in public Library Context	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Changing Roles of Public Libraries	Dr. Kamatchi S, Library and Information Officer, Anna Centenary Library
Community Based Information Services	Dr. K. Nityanandam, University Library, Anna University
Multilingual Information Representation through Unicode for Indic scripts	Prof. Kannan, Dept of Information Science and Technology, Anna University

Library Services for Specially abled persons	Dr. V. Chandrakumar, Associate Professor, DLISc, University of Madras
Digitization Process and Hands On Practice	Dr. N. Geetha, Assistant University Librarian, Anna University, Chennai
Standards and Formats for Digitization	Dr. G. Krishnamoorthy, Director, Anna University Library
Use of Social Media and other Web 2.0 Tools for Libraries	Dr. A Bhagvathy, Librarian, Tamil Nadu Dr. Ambedkar Law University, Chennai
Effective Communication Skills	Prof. B Ramesh Babu, Retd. Professor, DLISc, University of Madras

**7.7. 10<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel, Pondicherry University, Pondicherry, 29<sup>th</sup> August-2<sup>nd</sup> September, 2016**

10<sup>th</sup> Five-day National Workshop on Capacity Building Programme of National Mission on Libraries for Public Library Personnel was organized by Pondicherry University, Pondicherry in collaboration with INFLIBNET Centre, Gandhinagar at Pondicherry University, Pondicherry, from 29<sup>th</sup> August to 2<sup>nd</sup> September, 2016. Mr. H G Hosamani, Scientist C (LS), Mr. Kannan P, Scientist C (LS) and Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre coordinated the programme. Dr. R. Samyuktha, University Librarian, Pondicherry University welcomed the guests and participants. Dr. Jagdish Arora, Director, INFLIBNET Centre inaugurated the Workshop. 34 participants attended the programme. Mr. Z. Olirvel, Computer Information Scientist, Pondicherry University extended a warm vote of thanks at the end of the programme. The National Workshop covered theoretical and practical sessions on the following topics related to Capacity Building Programme are:

Topics	Name of Expert and Institution
Integrated Library Management System: Ananda Rangapillai Library, Pondicherry University	Dr. R. Samyuktha, University Librarian, Pondicherry University
National Mission on Libraries: An overview	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Library Automation: Overview and Open Source Tools for Libraries	Mr. Z. Olirvel, Computer Information Scientist, Pondicherry University
Library Automation: Acquisition-Koha	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Emerging Trends for Libraries in Context of Public Libraries	Dr. Jagdish Arora, Director, INFLIBNET Centre
Understanding Modern Library Standards MARC and Dublin Core	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre

Library Automation: Cataloguing and OPAC-Koha	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Library Automation: Koha- Circulation	Mr. Miteshkumar Pandya, Scientist B (LS), INFLIBNET Centre
Introduction to e- Resources and Discovery Tools in public Library Context	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Changing Roles of Public Libraries	Dr. R. Samyuktha, University Librarian, Pondicherry University
Community based Information Services	Dr. U Nagalingam, Dy. Librarian, Pondicherry University
Multilingual Information Representation through Unicode for Indic scripts	Dr. V. PrasannaVenkatesan, Head, Dept. of Banking Technology, Pondicherry University
Library Services for Specially-abled Persons	Mr. K. M. Shibu, Assistant Librarian, Pondicherry University
Digitization Process and Hands On Practice	Dr. P. Vijayakumar, Assistant Librarian, Pondicherry University
Standards and Formats for Digitization	Dr. R. Sevukan, Head, DLISc, Pondicherry University
Use of Social Media and other Web 2.0 Tools for Libraries	Dr. Fazlunnisa. H, Assistant Professor, DLISc, University of Madras
Effective Communication Skills	Ms. Ranjani Karthekeyan, Ex Sr. Manager, Accenture India

## 8. User Awareness Programme on Shodhganga and Anti-Plagiarism Software

### 8.1. One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool, Sri Venkateswara University, Tirupati, 20<sup>th</sup> April, 2016

One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool was organized by Sri Venkateswara University Library, Tirupati in collaboration with INFLIBNET Centre, Gandhinagar at Arts Block Auditorium, S.V. University, Tirupati on 20<sup>th</sup> April 2016. Dr. K. Surendra Babu, Librarian I/C, coordinated the programme and welcomed the guests and participants. Prof. A. Damodaram, Hon'ble Vice-Chancellor inaugurated the programme. In his inaugural address, he stressed upon the importance of quality research and commitment of the faculty and researchers for development of research in their respective subjects. He also highlighted the vision of the university in producing quality research and steps taken to improve the quality research. Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre made a detailed presentation on Shodhganga and URKUND: a plagiarism Detection tool. Prof. M. Devarajulu, Registrar chaired the programme and gave the presidential remarks. Around 300 participants including faculty members

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and research scholars attended the programme. Dr. K. Surendra Babu, Librarian I/C, extended a warm vote of thanks at the end of the programme.

### **8.2. One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool, Central University of Rajasthan, Ajmer, 9<sup>th</sup> May, 2016**

One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool was organized by Central University of Rajasthan in collaboration with INFLIBNET Centre, Gandhinagar at University Auditorium, Central University of Rajasthan, Ajmer on 9<sup>th</sup> May, 2016. Prof. (Dr.) Arun K Pujari, Hon'ble Vice-Chancellor inaugurated the programme by lighting the traditional lamp in presence of Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre and Dr. Vijaykumar M, Librarian and Coordinator of the programme. Mr. Manoj Kumar K delivered welcome address and briefed about different types of plagiarism and their legal consequences. Prof. (Dr.) Arun K Pujari, in his inaugural address, shared his views about plagiarism detection tool. Dr. Vijaykumar M extended a warm vote of thanks to the dignitaries on the dais and distinguished participants from different universities/institutions from the state of Rajasthan.

Mr. Manoj Kumar K delivered a presentation and live demonstration on Shodhganga and URKUND: a plagiarism detection tool, he elaborated as to how it benefits the academic community to improve the quality of research output. The session was highly interactive with a number of questions from the audiences. Mr. Saroja Kumar Panda, STA (LS), INFLIBNET Centre delivered a presentation on e-Shodh Sindhu. The certificates of participation were distributed to the participants at the end of programme. Around 150 participants including students, research scholars and faculty members from the Central University of Rajasthan and professionals from different universities and institutions from the state of Rajasthan attended the programme.

### **8.3. One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool, Sri Padmavati Mahila Visvavidyalayam (Women's University), Tirupati, 8<sup>th</sup> August, 2016**

One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool was organized by Sri Padmavati Mahila Visvavidyalayam (Women's University), Tirupati in collaboration with INFLIBNET Centre, Gandhinagar on 8<sup>th</sup> August 2016 at Saaveri Seminar Hall, SPMVV, Tirupati. Dr. D. Prabhavathi, University Librarian coordinated the programme and welcomed the guests and participants. Prof. V. Durga Bhavani, Hon'ble Vice-Chancellor inaugurated the programme with lighting of traditional lamp along with Prof. P. Vijayalakshmi, Registrar, Dr. D. Prabhavathi, University Librarian and Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre. In her inaugural address, she stressed upon improvement of quality of research, how the research has become challenging in the current scenario and how important it is to use the plagiarism checkers for Ph.D. theses as well as for research papers/articles. Prof. P. Vijayalakshmi opined that such types of awareness-cum-demonstration not only guide the research community in right direction but also



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help in improving quality of research ultimately benefiting the society. Mr. Manoj Kumar spoke about the importance of Shodhganga, utilization of plagiarism detection software and participation of Indian Universities in Shodhganga. 150 participants including faculty members and research scholars from various departments of University attended the programme. Prof. S. Jyothi, Department of Computer Science and Dr. D. Prabhavathi, University Librarian extended a warm vote of thanks to the INFLIBNET Centre, University authorities and all the participants.

#### **8.4. One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool, Periyar University, Salem, 9<sup>th</sup> August, 2016**

One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool was organized by Periyar University, Salem in collaboration with INFLIBNET Centre, Gandhinagar on 9<sup>th</sup> August 2016 at Periyar University, Salem. Prof Dr. M. Manivannan, Registrar welcomed guests and participants. Dr. Swaminathan, Hon'ble Vice-Chancellor inaugurated the programme in presence of Dr. M. Manivannan, Registrar, Dr. S. Leela, Controller of Examination, Dr. N. Subramanian, University Librarian and Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre. In his inaugural address, Dr. Swaminathan stated that Periyar University is one of the prominent member of INFLIBNET Centre and contributed all theses into Shodhganga and established ETD Lab in the University Library and now the University is going to implement the URKUND software for plagiarism detection. Mr. Manoj Kumar delivered keynote address. During the technical session, he also made a presentation and live demonstration on URKUND: Plagiarism Detection Software. He discussed various features of the software and its importance and benefits to the academic community especially for the research supervisors to improve the quality of research work. More than 350 participants including faculty members and research scholars from various departments of University attended the programme. Dr. N. Subramanian, University Librarian coordinated the programme and extended a warm vote of thanks at the end of the programme.

#### **8.5. One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool, Central University of Kerala, Kasaragod, 12<sup>th</sup> August, 2016**

One-day User Awareness Programme on Shodhganga and URKUND: A Plagiarism Detection Tool was organized by Central University of Kerala in collaboration with the INFLIBNET Centre, Gandhinagar on 12<sup>th</sup> August 2016 at Central University Auditorium, Central University of Kerala, Kasaragod. Dr. P. Senthilkumaran, Deputy Librarian welcomed the guests and participants, he spoke about the importance and purpose of this User Awareness Programme. Prof. (Dr.) G. Gopa Kumar, Vice Chancellor inaugurated the programme. In his inaugural address, he appreciated the initiatives taken by the library for organizing such kind of workshops jointly in collaboration with INFLIBNET Centre for the faculty members, research scholars, students and library professionals. He also emphasized the need of such programmes in the changing scenario of digital era. He said that anti-plagiarism facility would raise the standard of research of the University. He added that anti-plagiarism monitoring could be extended to PG courses in future. Prof. (Dr.) K. P. Suresh, Registrar,

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appreciated the library team for organizing user awareness programme on Shodhganga and anti-plagiarism software.

Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre, made a detailed presentation on Shodhganga, Shodhgangotri and URKUND: a plagiarism detection tool. He demonstrated the process of uploading theses into Shodhganga and checking chapters of the thesis for plagiarism using URKUND. He pointed out that Shodhgangotri host synopses or approved research proposals submitted to the universities in India by research scholars for registering themselves for the Ph.D programme. He also presented statistical data on Shodhganga and requested the University to upload their theses into Shodhganga. Dr. Shivarama Rao, K., Assistant Librarian, CUK concluded the session and extended a warm vote of thanks at the end of the programme. 120 participants took part in the programme.

#### **8.6. One-day Workshop on URKUND: A Plagiarism Detection Tool under Shodhganga & Mendeley: Referencing Tool and Inauguration of ETD Lab, Assam University, Silchar, 7<sup>th</sup> November, 2016**

One-day Workshop on URKUND: A Plagiarism Detection Tool & Mendeley: Referencing Tool was organised by Assam University, Silchar in collaboration with INFLIBNET Centre, Gandhinagar on 7<sup>th</sup> November, 2016 at Bipin Chandra Paul Seminar Hall, Assam University, Silchar. Dr. Arun K Sharma, Librarian coordinated the programme and welcomed the guests and participants. Prof. Dilip Chandra Nath, Hon'ble Vice-Chancellor inaugurated the programme. Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre made detailed presentations on URKUND: A Plagiarism Detection Tool & Mendeley: Referencing Tool. He demonstrated method of generating similarity report and preparing references using Mendeley and integrating it with word processing software. The programme ended with a question answer session that addressed most of the queries of the participants. Around 120 participants including faculty members and research scholars, participated in the programme. Dr. Arun K Sharma extended a warm vote of thanks at the end of the programme.

Prof. Dilip Chandra Nath, Hon'ble Vice-Chancellor, Assam University inaugurated the institutional Digital Repository (IDR) along with ETD Lab under Shodhganga project at Central Library, Assam University in presence of Mr. Manoj Kumar K, Scientist D (CS), INFLIBNET Centre and Dr. Arun K Sharma, Librarian, Assam University.

### **9. E-Content Development under e-PG Pathshala**

#### **9.1. Meeting for the stakeholders of the Paper 'Food Technology', INFLIBNET Centre, Gandhinagar, 30<sup>th</sup> April-2<sup>nd</sup> May, 2016**

The INFLIBNET Centre organized a meeting for the stakeholders of the paper 'Food Technology' at INFLIBNET Centre, Gandhinagar from 30<sup>th</sup> April to 2<sup>nd</sup> May, 2016. The Stakeholders of the paper,

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Prof. Vijaya Khader, Principal Investigator, Prof P. N. Raju, Prof. Dibyakant Seth and Prof. K. K. Dash, Paper Coordinators, presented the progress made in the subject 'Food Technology' including overall status of all papers. Representatives of the Nexzenpro Media Technologies were present for multimedia recording.

**9.2. Meeting of Paper Coordinators and Reviewers under the subject Library and Information Science, INFLIBNET Centre, Gandhinagar, 12<sup>th</sup> -18<sup>th</sup> July, 2016**

The Information and Library Network Centre (INFLIBNET), Gandhinagar organized meeting of Reviewers and Paper Coordinators to review the modules and video recording of MOOCs Course of the papers under the subject Library and Information Science. The Director, INFLIBNET Centre briefed about the activities to be carried out by the reviewers and paper coordinators to convert the ePG Pathshala e-Content into MOOCs courses. E-text and self-assessment of seven papers reviewed by Prof. RSR Vara Lakshmi, Rtd Professor, Andhra University, Vishakhapatnam and Prof. Sewa Singh, Ret. Professor, Guru Nanak Dev University, Amritsar. Prof K S Raghavan, Ret. Professor, DRTC and Paper Coordinator, Knowledge Society, Prof. Dinesh Gupta, Director (Research), Vardhaman Mahaveer Open University and Paper Coordinator, Management of Library and Information and Knowledge Centre and Prof. Devika P Madalli, Professor, DRTC and Paper Coordinator, Information Storage and Retrieval attended the meeting and incorporated the changes suggested by the reviewer in the respective paper. The video recording held at Bhaskaracharya Institute for Space Applications and Geo-Informatics and respective paper coordinators delivered the course introduction and weekly introduction lecture recorded for the purpose of MOOCs.

**9.3. Meeting of Reviewer under the Subject 'Sociology', INFLIBNET Centre, Gandhinagar, 29<sup>th</sup> November, 2016**

The INFLIBNET Centre organised meeting of Reviewer, to review the modules and video recording of MOOCs Course of the papers under the subject Sociology on 29<sup>th</sup> November, 2016. Mr. Abhishek Kumar, Scientist C (CS), INFLIBNET Centre briefed about the activities to be carried out by the reviewer to convert the ePG Pathshala e-Content into MOOCs courses.

**10. The 2016 Higher Education Forum, New Delhi, 14<sup>th</sup> September, 2016**

The 2016 Higher Education Forum, earlier known as the UGC-Infonet University Forum, was organized by the INFLIBNET Centre in collaboration with the Elsevier Science at Radisson Blu Plaza Hotel, New Delhi on 14<sup>th</sup> September 2016. With the formation of e-Shodh Sindhu Consortium, the spectrum of forum is broadened to include top universities, engineering and management institutes. The agenda of the 2016 Higher Education Forum was built around the objective of "Leading the way in institutional ranking". The forum commenced with the guest address from Dr. Jagdish Arora, Director INFLIBNET Centre. Dr. Arora highlighted the significance of this platform for getting together such a distinguished audience to discuss the important concerns of the day and the role of

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eSS in NIRF ranking analysis. He emphasized on the role of librarians in projecting their respective universities/institutes towards the road to excellence.

Mr. Lim Kok Keng, Managing Director, Asia Pacific, Elsevier shared his views on how Elsevier is working with the universities globally to support research, education & internationalization through various tools & services. Dr. Youngsuk "YS" Chi, Chairman, Elsevier shared his exciting view on institutional benchmarking simplified through example of Ms. Dipa Karmakar, who was ranked 4<sup>th</sup> in Gymnastics in 2016 Olympics. He mentioned that the example of Dipa Karmakar conveys that not only the top ranking colleges that are benefitted by the ranking but also it helps in setting goals for the others and creating the roadmap for the future. Dr. Chi mentioned that by 2025 India would be having the largest population of university going students, it would be best to start working towards providing a great base for them and Elsevier is committed to provide the best technological support for the same.

Dr. Prafulla Agnihotri, Director, IIM, Tiruchirappalli highlighted the significance of branding and how we can utilize the nuances to channelize our higher education rankings towards providing Indian alternatives to international education centres. Dr. Charon Duermeijer, Senior Director, Academic Customer Engagement, Elsevier shared her views on the significance of rankings in the global scenario and how different countries are promoting internationalization of research through their policies to foster growth in the ranking lists.

Dr. Chuin Peng Sim, Senior Associate and University Librarian, NUS Library, Singapore presented the concept of embedded librarianship which NUS is successfully using towards providing better resources to its researchers. Prof. W.N. Gade, Vice Chancellor, University of Pune made presentation on "strategies to improve institutional ranking. He raised some important concerns on the standardization of rankings and how the higher education centres should strive towards providing better human resources for tomorrow and thus bring about a social transformation in the country. Ms. Kylie Chiew, Regional Solution Sales Director- APAC, Research Management shared her insights on Indian research scenario using the SciVal tool. Dr. T. J. Dhilip Kumar, Associate Dean, In-charge of Institutional Ranking, IIT Ropar shared detailed information on NIRF and how IIT-Ropar, a relatively newer entrant to IIT group walked that path.

Dr. R.C. Gaur, University Librarian, JNU shared his thoughts on role of academic libraries in institutional ranking. He brought a fresh perspective to the changing needs and roles of librarians with the advent of e-resources. He aptly showed that publishing output is directly linked to the usage pattern of an institute. Mr. Vinod Kaw, Regional Sales Manager South Asia, Elsevier shared with the audience how Elsevier has played a key role in the eSS landscape and provided the necessary tools in its drive towards excellence.

Prof. Valli Kumari, Department of Computer Science, Andhra University made a presentation on the impact of rankings and metrics on higher education centres and demonstrated how Scopus has helped members from her University assess their situation, plan, track their progress and measure

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their performance. Prof. S. Raisuddin, Director of Internal Quality Assurance Cell, Jamia Hamdard Pharmacy College shared his views on strategic planning and experience of his University for institution rankings. He opined that “research is universal and is for serving the community”, and, therefore, there is a need for responsible benchmarking.

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## **Part - IV**

# **Infrastructure Facilities, Distinguished Visitors, Other Important Activities and Financial Status**



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## 1. Central Facilities

### 1.1. Library (<http://www.inflibnet.ac.in/library/>)

The INFLIBNET Centre has a specialized library having unique collection on library and information science, computer science, communication and information technology. The library is fully computerized using SOUL 2.0 integrated library management software. The library has around 2,000 documents including books, journals and magazines. Besides, the Centre, as the coordinating agency for the Consortium, gets complementary access 15,000 full-text journals from 25 publishers, 5 bibliographic databases, 2 legal databases, 4 factual databases and one standards database subscribed under the e-Shodh Sindhu. The collection of the library is available online through the web OPAC at <http://www.inflibnet.ac.in/library/>. Figure 51 shows library of the INFLIBNET Centre.



Fig. 51: INFLIBNET Centre's Library

The INFLIBNET Library plays a vital role in the collection development and dissemination of scientific and technical information to meet the present and future needs of the Centre. The Library maintains databases of i) participants who have attended various training programmes at INFLIBNET Centre; ii) Institutions having SOUL installations; and iii) Universities and its contact details including e-mail and website addresses. These databases are accessible through the INFLIBNET Website.

#### 1.1.1. Library Services

The library provides following services to its users:

- Reference Service
- Document Delivery Service



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- Current Awareness Service
  - Inter Library Loan Service
  - Electronic Information Service
  - Reprographic Service

#### **1.1.2. Access to Online Database**

The Centre subscribes to web edition of the Ulrich's International Periodical Directory, a web-based bibliographic database of periodicals that is being used for authentication of bibliographic records in union catalogues and for other activities. The database accessible on INFLIBNET's IPs is also accessible to visiting users. Besides, the Centre, as executing and monitoring agency for the e-Shodh Sindhu has access to all e-journals, e-books and bibliographic database subscribed under this programme.

#### **1.2. IR @ INFLIBNET (<http://ir.inflibnet.ac.in>)**

The Centre has established an institutional repository called IR@ INFLIBNET using DSpace, open source software accessible at <http://ir.inflibnet.ac.in>. The papers published in the proceedings of the CALIBER and PLANNER, are uploaded into the repository. The Repository also includes course materials, newspaper clippings, etc. The repository has 1,591 full-text articles.

#### **1.3. Institutional Members**

The Centre has institutional membership of following national and international organizations:

- American Library Association (ALA)
- National Information Standards Organization (NISO)
- Indian Library Association (ILA)
- Indian Association of Special Libraries and Information Centres (IASLIC)
- ADINET (Ahmedabad Library Network)
- British Library, Ahmedabad

#### **2. ICT Infrastructure@INFLIBNET Centre**

The INFLIBNET Centre designed and planned the ICT infrastructure for its building based on the requirements of its scientists and staff. All IT-related solutions and components as well as for integration of passive and active low-voltage infrastructure solution for the new building of the Centre at Infocity, Gandhinagar was executed by M/s Progility Technologies Pvt. Ltd (formally M/s Siemens Enterprise Communication).

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## **2.1. Computer Network & Infrastructure**

The Centre maintains basic infrastructural facilities such as Computer Laboratories and Data Centre to support all its essential computing activities. Important IT infrastructural facilities available at the Centre are as follows:

### **2.1.1. PCs, Laptops and Servers**

The main objective of the Centre is to provide proactive help to the universities in library automation and to mediate resource sharing amongst them. Computing and network infrastructure are the main assets of the Centre. The Centre has added more PCs, Laptops, gadgets and other equipment with high configuration in 2016-2017 for the staff and users with a total no. of 181 PCs and 30 laptops for scientists, project staff, walk-in user's facilities for researchers, training laboratories, ETD lab., etc.

The Centre earlier had four servers for hosting its services including two IBM x3500 1U servers for web services and two IBM x3660 5U servers for its research & development activities. In addition, one HP Blade Server Enclosure C3000 was procured from HP along with eight ProLiant BL460c servers in 2009 for different services of the Centre such as Web services, INFLIBNET website, Shodhganga, OJAS, N-LIST, N-LIST Proxy Server, InfoPort, e-PG Pathshala, IndCat, DNS server, Intranet server, UGC website, e-SARTS and other important services. With addition projects, schemes and increased in volume of data, the Centre has again procured IBM Blade Centre S chassis with six blades and data storage to host mirror sites at INFLIBNET Centre as well as at the BSNL Hosting Services. Centre also has five high-end DELL PowerEdge R630 servers for e-Acharya, ICSSR Data Repository, Vidwan, e-PG Pathshala, Shodhganga, and UGC Website. Centre has also purchased 12TB Storage DELL PowerVault for the e-Acharya.

During the year under report, Centre also upgraded its server in terms of storage capacity and RAM for providing improved user experience.

### **2.1.2. Campus-LAN and Internet Connectivity**

The Centre provides most of its services through Internet on 24\*7\*365 basis. The network infrastructure is one of the most important components providing efficient and effective services to the remote and local academic users. The Centre has upgraded network infrastructure that connects all its offices and laboratories with National Knowledge Network (NKN) that provides 1 Gbps MPLS (Multi Protocol Layer Switching) connectivity to all universities in India. The bandwidth is currently used within a limit of 100-150 Mbps, but it can be increased on demand based on bandwidth intensive applications upto 1 Gbps. INFLIBNET Centre is having two Internet connections, i.e. one from NKN and other from BSNL for standby purpose. This gives redundancy to Internet links which is essential in an organisation which is striving towards Tier 3 Data Centre. Access to e-resources is enabled on all sets of IP addresses used by the Centre. STM (Synchronous Transfer Mode) equipment at Centre is connected through Optical Fiber to Gandhinagar node of NKN on ring

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topology. This gives redundancy of NKN links and the architecture of the NKN is enabled to reach all universities with minimum hops. Any university can be reached with minimum hops on NKN and this gives INFLIBNET an advantage of serving the universities with good speed and higher data transfer.

As on now, the network is running over managed L3 switches and managed L2 switches with 40 Gbps ready network with structured cabling, rack, I/Os, jack panels, etc. Dedicated firewall appliance is purchased with subscription to anti-virus, anti-spam and intrusion detection system. PCs and laptops used in the Centre are protected against attack and other vulnerability by Gateway level-filtering and intrusion detection system using Fortinet UTM. User-level antivirus protection is also enabled for end-user protection. On an average, the INFLIBNET Website and the national union databases attract more than 15,000 visitors per month.

During the year under report, Centre awarded the contract for supply, installation and commissioning of one L3 switch for redundancy in HA Mode, eight L2 switches for extension of network services along with the additional access point to enhance the network and Wi-Fi connectivity throughout the Campus of INFLIBNET Centre.

## **2.2. Integration of Data Centre and other IT services**

Data Centre established at INFLIBNET Centre is having most robust setup and less prone to failures and also to host mission critical servers and computer systems, with fully redundant subsystems. All components are fully fault-tolerant including uplinks, storage, chillers, HVAC systems, servers etc. The INFLIBNET Centre uses HP Blade System C 3000 Enclosure for hosting Web Services, INFLIBNET website, Shodhganga, OJAS, N-LIST, InfoPort, e-PG Pathshala, IndCat, DNS server, Intranet server, etc. IBM Blade Centre S chassis is used for Web co-location services at BSNL, which host mirror sites of INFLIBNET Centre for the services such as UGC website, N-LIST Proxy Server, Online UGC Scholarship scheme and other important services.

Building Management System (BMS) integrates the mechanical and electrical equipment used for various services such as ventilation, lighting, power system, fire system and security system. INFLIBNET Centre uses HVAC (Heating, Ventilation and Air Conditioning) for indoor environmental comfort based on the principle of thermodynamics, fluid mechanics and heat transfer, ensuring maximum levels of efficiency and economy. INFLIBNET Centre uses Honeywell Trend for the BMS Solutions. The INFLIBNET Centre is using Smart Visitor Management Software for storing data and generating a gate-pass for visitors.

26 CCTV cameras from M/s. Honeywell are used as Surveillance System by categorizing into three types. PTZ security cameras allow controlling the Pan, Tilt and zooming operations of the camera lens remotely or through programming. Other two cameras are Box type's cameras and Dome type cameras. All cameras are IP-based, advanced and PoE (Power on Ethernet) enabled. Telephony services in the Centre are established using IP Telephony system in the Local Area Network itself

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which is based on Internet Protocol phones. The INFLIBNET Centre use three different categories of phones i.e. Siemens Open Stage 60 for Scientists, Open Stage 40 for other staff member and Open Stage 15 for security & residences.

During the year under report, Centre procure 60 "Open Stage 15" IP phones to extend the IP Telephony services in 39 Guest Rooms and staff in office.

A dedicated ISDN PRI line is used for Video Conferencing Facility with high definition resolution camera with codec, multipoint control unit and HD LCD/LED TV for display. Public Addressing System (PAS) is in place for playing soothing music in the background in the premises of a building to give pleasant ambiance for working professionals. The entire building is divided into various zones and zone-wise announcement is also possible with centralized control. Boardroom is equipped with facilities which can be controlled with a wireless touchpad/iPad. A well-equipped auditorium with 380 seating capacity having professional sound system with an advanced dynamic mixer is made available with state-of-art mic preamps with DSP with 100 presets including reverb, chorus, flanger, delay, pitch shifter and various multi effects with at least 12 channels for audio devices like mics (i.e. collar, hand-help, audio mike, cordless and vocal instrumental), laptop, CD/DVD player or music instruments, media players, etc. The mixer is connected with sufficient amplifiers for Base (Woofers), FOH (Front of the House), surround speakers, crossover amplifier for balancing the gain of audio and stage monitor speaker with plug and play facility. The entire campus is equipped with Wi-Fi hotspot.

### **2.3. Training Lab**

The Centre conducts training programmes including SOUL training programme on regular basis. A Training Laboratory with 42 PCs has been set-up with projection system and other equipment for this purpose. All PCs in the Laboratory are connected to the Centre's LAN, which is connected to the Internet. All PCs are set-up in dual operating system mode, i.e. Windows and Linux. All the PCs and network equipment are backed-up with Uninterrupted Power Supply (UPS).

### **2.4. SOUL Support Centre**

The SOUL software, developed by the Centre, has more than 3,352 installations. SOUL Support Cell is equipped with 5 PCs, scanner and printer. A facility has been created to provide support to the users of the SOUL Software with dedicated telephone line, fax and manpower special earmarked for this purpose.

### **2.5. Walk-in User's Facilities for Researchers**

The Centre has 16 Internet-enabled all-in-one PCs with Wi-Fi earmarked for students, scholars and faculty from neighbouring institutions for accessing e-resources subscribed under the e-Shodh

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Sindhu. The license agreements signed with the publishers of e-resources provides for access to e-resources for “walk-in” users. More than 400 users availed this facility during the period under report.

### 3. Academic Interaction with Universities and other Research Institutions

Although the Centre receives a large number of applications from engineering colleges in Gujarat and neighbouring states for training at the INFLIBNET, the Centre selects limited student trainees. Many students had undergone practical training at the INFLIBNET Centre during the year under report. Facilities are also extended to the library science students of Sarojini Naidu Govt. Girls P.G. College, Bhopal to avail library internship at the Centre. Details of no. of students and their institution are given below in Table 34.

Sl. No.	Name of the Institute	Degree	No. of students
1	Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar	B.Tech.	2
2	Leelaben Dashrathbhai Ramdas Patel Institute of Technology and Research (Kadi Sarva Vishwavidyalaya), Gandhinagar	MCA	4
3	Sarojini Naidu Govt. Girls P.G.(Autonomous) College, Bhopal	MLISc	6
4	Gujarat Vidyapith, Ahmedabad	MCA	1

Table 34: Details of No. of Students/Trainees and their Institution

### 4. Other Notable Activities and Events

#### 4.1. Independence Day

The INFLIBNET Centre celebrated 70<sup>th</sup> Independence Day on Monday, 15<sup>th</sup> August 2016. The National Flag was hoisted by Dr. Jagdish Arora, Director, INFLIBNET Centre. Dr. Arora addressed the staff members and their families regarding the activities of the Centre. A number of games organized for staff and their children during the event and prizes were distributed to the winners of the games.

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#### 4.2. Navratri



Fig. 53: Navratri @INFLIBNET Centre

The INFLIBNET Centre celebrated Garba festival with great enthusiasm. The Garba night was organized for the employees and their families on 7<sup>th</sup> October 2016. The function started with Durga Puja and everyone from the campus, staff member and their families participated. The employees and their families turned out in their best traditional attire. Dr. Jagdish Arora, Director, INFLIBNET Centre distributed the prizes for the best dance performers, best-dressed persons and children. The function concluded with the ceremonial dinner.

#### 4.3. Republic Day

The INFLIBNET Centre celebrated 68<sup>th</sup> Republic Day on 26<sup>th</sup> January 2017 at INFLIBNET Centre, Infocity, Gandhinagar. The National Flag was hoisted by Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre. Mr. Manoj Kumar K addressed the staff members and their families about the activities of the Centre. A number of games were organized for staff and their children during the event and prizes were distributed to the winners of the games.

#### 5. Visitors

The Centre had privileged of welcoming the following important visitors.

Mr. R Subrahmanyam, Additional Secretary, MHRD, New Delhi

Prof. H Devaraj, Vice Chairman, UGC, New Delhi

Dr. (Mrs) Pankaj Mittal, Additional Secretary, UGC, New Delhi

Prof. Uma Kanjilal, DLIS, Indira Gandhi National Open University, New Delhi

Mr. Pradeep Kaul, Senior Consultant, NME-ICT, MHRD, New Delhi

Prof. K S Raghavan, Retired Professor, DRTC, Bengaluru

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Dr. UshaMunshi, Librarian, Indian Institute of Public Administration, New Delhi  
Dr. G. K. Manjunath, Chief Librarian, IGIDR, Mumbai  
Prof. I K Ravichandra Rao, Professor, PES Institute of Technology, Bengaluru  
Prof. Madhan Muthu, IISc, Bengaluru  
Prof. Anamik Shah, Vice-Chancellor, Gujarat Vidyapith, Ahmedabad  
Dr. Nabi Hasan, University Librarian, Aligarh Muslim University, Aligarh  
Dr. Kumud Sharma, Department of Hindi, University of Delhi, New Delhi  
Prof. Ram Bux, Department of Hindi, Jawaharlal Nehru University, New Delhi  
Prof. Krishna Amin-Patel, Centre Head, National Institute of Design (NID), Gandhinagar

## **6. Right to Information (RTI) Act**

In accordance with the provisions of section 4(1) (b) of this Act, the INFLIBNET has put information and guidance of the stakeholders and the general public and hosted the same on the website of the Centre at <http://www.inflibnet.ac.in>. In terms of section 5(2) of the Right to Information Act 2005, the Director of the INFLIBNET Centre has been designated as Appellate Authority / Nodal Officer for all matters concerning to the Centre. The detailed information about RTI and responsible officers appointed for are available on the Centre's website at <http://www.inflibnet.ac.in>.

## **7. Financial Status**

The Audited Annual Accounts of INFLIBNET Centre for the financial year 2016-2017 is given in the Appendix XII.

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# Appendices



**Building Committee**  
(As on 31<sup>st</sup> March 2017)

**Prof. S K Khanna (Chairman)**

Chief Advisor  
Sharda University  
Plot No. 32-34, Knowledge Park III  
Greater Noida

**Dr. M. N. Patel**

Vice-Chancellor  
Gujarat University  
Navrangpura  
Ahmedabad

**Dr. Jagdish Arora**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Prof. Dhirendra Pal Singh**

Director  
NAAC  
Bangalore

**Dr. R K Chadha**

Former Additional Secretary  
Lok Sabha, New Delhi

**Mr. Rajeev Kathpalia**

Vastu-Shilpa Consultants  
"Sangath" Thaltej Road  
Ahmedabad

**Mr. Manoj Kumar K**

Scientist-D (CS)  
INFLIBNET Centre  
Infocity, Gandhinagar

**Mr. Harish Chandra (Convener)**

Admn. Officer  
INFLIBNET Centre  
Infocity, Gandhinagar

**Governing Council**  
**(As on 31<sup>st</sup> March 2017)**

**Ex. Officio Members****Prof. Ved Prakash**

President

Governing Council &amp; Chairman

University Grants Commission

Bahadur Shah Zafar Marg, New Delhi

**Prof. Anil D Sahasrabudhe**

Chairman

All India Council for Technical Education

7th Floor, Chanderlok Building

Janpath, New Delhi

**Dr. Girish Sahni**

Director General &amp; Secretary, DSR

CSIR, Anusandhan Bhawan

2, Rafi Marg, New Delhi

**Prof. S K Thorat**

Chairman

Indian Council of Social Science Research

JNU Institutional Area, New Delhi

**Dr. Arun Kumar Chakraborty**

Director General

National Library

Belvedr, Kolkatta

**Dr. Jagdish Arora**

Director

INFLIBNET Centre

Infocity, Gandhinagar

**Nominated Members****Prof. Sachidananda Mohanty**

Vice-Chancellor

Central University of Orissa

Landiguda, Koraput

**Dr. Rajbir Singh (19 July 2016- 19 July 2019)**

Director

Consortium for Educational Communication

IUAC (NSC) Campus, Aruna Asaf Ali Marg

New Delhi

**All Members of the Governing Board are also  
member of the Governing Council**

**Governing Board**  
(As on 31<sup>st</sup> March 2017)

**Ex. Officio Members****Prof. (Dr.) Jaspal Singh Sandhu**

Secretary  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

**Prof. S A Bari**

Vice-Chancellor  
Central University of Gujarat  
Sector 30, Gandhinagar

**Prof. A P Mittal**

Member Secretary  
All India Council for Technical Education  
7<sup>th</sup> Floor, Chanderlok Building  
Janpath, New Delhi

**Dr. Jagdish Arora (Member Secretary)**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Nominated Members****Prof. Sunaina Singh**

Vice Chancellor  
English and Foreign Languages University  
Osmania University Campus, Hyderabad

**Prof. S B Ray Chaudhury**

Vice-Chancellor  
Rabindra Bharati University  
Emerald Bower Campus  
56-A, B T Road, Kolkata

**Prof. Shivaji Rao S Kadam**

Vice-Chancellor  
Bharati Vidyapeeth  
Bharati Vidyapeeth Bhavan  
Lal Bahadur Shastri Marg, Pune

**Dr. R K Chadha**

Former Additional Secretary  
Lok Sabha, New Delhi

**Prof. Dharendra Pal Singh**

Director  
National Assessment Accreditation Council  
P. O. Box No. 1075, Nagarbhavi,  
Bangalore

**Dr. M P Poonia**

Vice-Chairman  
All India Council for Technical Education  
(AICTE), New Delhi

**Dr. Rajbir Singh**

Director  
Consortium for Educational Communication  
IUAC (NSC) Campus, Aruna Asaf Ali Marg  
New Delhi

**Finance Committee**  
**(As on 31<sup>st</sup> March 2017)**

**Ex. Officio Members**

**Prof. (Dr.) Jaspal Singh Sandhu**  
Secretary  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

**Mr. P. K. Thakur**  
Financial Advisor  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

**Dr. (Mrs.) Manju Singh**  
Jt. Secretary  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

**Nominated Member**

**Dr. R K Chadha**  
Former Additional Secretary  
Lok Sabha, New Delhi

**Dr. Jagdish Arora**  
Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Mr. Yatrik Patel**  
Scientist-D (CS)  
INFLIBNET Centre  
Infocity, Gandhinagar

**Mr. Harish Chandra**  
Admn. Officer  
INFLIBNET Centre  
Infocity, Gandhinagar  
(Admn./Accounts Officer)  
(Non-Member Secretary)

**Technical, Administrative and Supporting Staff**  
(As on 31st March 2017)

<b>Scientific &amp; Technical Staff</b>		
<b>Sl. No.</b>	<b>Name of the employee</b>	<b>Designation</b>
1.	Dr. Jagdish Arora	Director
2.	Mr. Manoj Kumar K.	Scientist-D (CS)
3.	Mr. Ashok Kumar Rai	Scientist-D (CS)
4.	Mr. Yatrik R. Patel	Scientist-D (CS)
5.	Mr. H. G. Hosamani	Scientist-C (LS)
6.	Mr. Kannan P.	Scientist-C (LS)
7.	Mr. Abhishek Kumar	Scientist-C (CS)
8.	Mr. Swapnil P. Patel	Scientist-B (CS)
9.	Mr. Divyakant Vaghela	Scientist-B (CS)
10.	Mr. Gaurav Prakash	Scientist-B (CS)
11.	Mrs. Vaishali A. Shah	Scientist-B (LS)
12.	Ms. Kruti J. Trivedi	Scientist-B (LS)
13.	Mr. Dinesh Ranjan Pradhan	Scientist-B (LS)
14.	Dr. Mitesh Pandya	Scientist-B (LS)
15.	Mr. Hitesh H. Solanki	Scientist-B (CS)
16.	Mr. Pallab Pradhan	Scientist-B (LS)
17.	Mr. Raja V.	Scientist-B (CS)
18.	Mrs. Hema Cholin	S.T.O – I (LS)
19.	Ms. Suboohi Siddiqui	S.T.O.-I (LS)
20.	Mr. Saroja Kumar Panda	STA (LS) (on lien w.e.f.18.05.2016)
21.	Mr. Dharmeshkumar A. Shah	STA (CS)
22.	Mr. Mohit Kumar	STA (CS)
23.	Mr. Vijaykumar M Shrimali	STA (CS)
24.	Mrs. Roma Yogesh Asnani	STA (LS)
<b>Administrative &amp; Support Staff</b>		
25.	Mr. Harish Chandra	Administrative Officer (PA&F)
26.	Mrs. S. M. Munshi	Section Officer (P&S)
27.	Mr. Sanjay R. Shah	Office Assistant-II
28.	Mrs. Yamini J. Dave	Office Assistant-II
29.	Mrs. R. B. Pendharkar	Office Assistant-II
30.	Mr. Ankur B. Parikh	Office Assistant-II
31.	Mr. Shyam T. Yadav	Assistant
32.	Mr. Vinod B. Dantani	Helper
33.	Mr. Bakul M. Parmar	Lab Attendant

<b>Contractual Staff in Administration</b>		
1.	Mr. Sarat Kumar Mishra	Sr. Consultant (Accounts & Administration)
<b>Contractual Staff in Computer Science</b>		
2.	Mrs. Surbhi Sumit Mistry	Sr. Project Officer (CS)
3.	Mrs. Shweta N. Brahmbhatt	Project Officer (CS)
4.	Mr. Swayamprakash Rajput	Project Officer (CS)
5.	Mr. Nrutik M. Prajapati	Project Officer (CS)
6.	Ms. Mitisha S. Vaidya	Project Officer (CS)
7.	Mr. Piyush Kumar	Project Officer (CS)
8.	Ms. Swati Bhatnagar	Project Officer (CS)
9.	Mr. Abhishek Kumar Anand	Project Officer (CS)
10.	Ms. Maheshwari G. Rathod	Project Officer (CS)
11.	Mr. Mihir R. Prajapati	Project Officer (CS)
12.	Mr. Prakash B. Prajapati	Project Officer (CS)
13.	Mr. Amit G. Parmar	Project Officer (CS)
14.	Ms. Priya R. Varu	Project Officer (CS)
15.	Mr. Sachin M. Mali	Project Officer (CS)
16.	Mr. Darshankumar Dashrathlal Modi	Project Associate (CS)
17.	Mr. Shrikant Kumar	Project Associate (CS)
18.	Ms. Kinjal R. Solanki	Project Associate (CS)
19.	Mr. Gaurav Kumar Gond	Project Associate (CS)
20.	Mr. Rahul N. Panchal	Project Associate (CS)
21.	Ms. Priya Madanan	Project Associate (CS)
22.	Mr. Krunal G. Shah	Project Associate (CS)
23.	Ms. Ankita Gordhanbhai Prajapati	Project Assistant (CS)
24.	Ms. Kalgi A. Gandhi	Project Assistant (CS)
25.	Ms. Shivani R. Joshi	Project Assistant (CS)
26.	Mr. Vivek Singh	Project Assistant (CS)
27.	Ms. Nirmala C. Khadka	Project Assistant (CS)
28.	Mr. Kumar Gaurav	Project Assistant (CS)
29.	Mr. Brijesh M. Kothadia	Project Assistant (CS)
30.	Ms. Jinal K. Jakasania	Project Assistant (CS)
31.	Ms. Nabila M. Shaikh	Contracted for 3 months (CS)
32.	Ms. Rina Patel	Contracted for 3 months (CS)
33.	Ms. Juhi Priyadarshi	Contracted for 3 months (CS)
<b>Contractual Staff in Library Science</b>		
1.	Ms. Archita M. Muchhadia	Project Officer (LS)
2.	Mr. Kuldeep Matieda	Project Officer (LS)

---

3.	Mrs. Pallavi	Project Officer (LS)
4.	Ms. Rajeshri J. Makwana	Project Associate (LS)
5.	Mrs. Deepti Sandeep Pandey	Project Associate (LS)
6.	Ms. Dipika M. Makwana	Project Associate (LS)
7.	Mr. Atul J. Patel	Project Associate (LS)
8.	Ms. Manjiri Vilas Dhande	Project Associate (LS)
9.	Mr. Nipul G. Shihora	Project Associate (LS)
10.	Mr. Ramswaroop Ahirwar	Project Associate (LS)
11.	Mr. Iliyasbhai Y. Mansuri	Project Associate (LS)
12.	Ms. Neha V. Jain	Project Assistant (LS)
13.	Ms. Divyabahen S. Vyas	Project Assistant (LS)
14.	Ms. Roshni S. Yadav	Project Assistant (LS)
15.	Ms. Anita N. Kushwaha	Project Assistant (LS)
16.	Ms. Miral J. Mehta	Project Assistant (LS)
<b>Other Contractual Staff</b>		
1.	Ms. Priti Sharma	Project Officer (Management)
2.	Ms. Tulsi B. Punjani	Project Assistant (Statistics)

## State-Wise List of the SOUL Installations

Sl. No.	Name of the State	Installation	1 <sup>st</sup> April, 16 to 31 <sup>st</sup> March, 17	Total
1	Andhra Pradesh	271	15	286
2	Assam	67	6	73
3	Bihar	14	2	16
4	Chhattisgarh	32	4	36
5	Daman	2	0	2
6	Goa	3	0	3
7	Gujarat	885	43	928
8	Haryana	101	8	109
9	Himachal Pradesh	65	2	67
10	Jammu & Kashmir	70	3	73
11	Jharkhand	8	0	8
12	Karnataka	31	0	31
13	Kerala	130	1	131
14	Madhya Pradesh	245	12	257
15	Maharashtra	430	19	449
16	Manipur	0	1	1
17	Meghalaya	3	0	3
18	Mizoram	26	3	29
19	Nagaland	4	1	5
20	Nepal	3	1	4
21	New Delhi	38	1	39
22	North Eastern States	296	0	296
23	Orissa	10	1	11
24	Pondicherry	0	5	5
25	Punjab	125	4	129
26	Rajasthan	59	1	60
27	Tamil Nadu	34	0	34
28	Uttar Pradesh	96	9	105
29	Uttaranchal	19	0	19
30	West Bengal	136	7	143
	<b>Total</b>	<b>3,203</b>	<b>149</b>	<b>3,352</b>



**National Advisory Committee, e-Shodh Sindhu**  
(As on 31<sup>st</sup> March 2017)

**Mr. Kewal Kumar Sharma (Chairman)**

Secretary (HE)  
Ministry of Human Resource Development  
Shastri Bhawan, New Delhi

**Adviser (Higher Education)**

NITI Aayog  
Sansad Marg, New Delhi

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Additional Secretary (TE)  
MHRD & Mission Director, NMEICT  
Shastri Bhawan, New Delhi

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National Coordinator  
INDEST-AICTE Consortium  
Indian Institute of Technology, Delhi  
Hauz Khas, New Delhi

**Ms. Ishita Roy**

Joint Secretary (HE)  
Ministry of Human Resource Development  
Shastri Bhawan, New Delhi

**Prof. Asoke Kumar Sen**

Dean  
Dept. of Physics  
Assam University, Silchar

**Joint Secretary (TEL)**

Ministry of Human Resource Development  
Shastri Bhawan, New Delhi

**Prof. Karmeshu**

Dean,  
Computer System & Sciences  
Jawaharlal Nehru University (JNU), New Delhi

**Ms. Darshana M Dabral**

JS & FA  
Ministry of Human Resource Development  
Shastri Bhawan, New Delhi

**Dr. R K Chadha**

Former Additional Secretary  
Lok Sabha Secretariat, New Delhi

**Prof. Ved Prakash**

Chairman  
University Grants Commission  
Bahadur Shah Zafar Marg  
New Delhi

**Dr. Ramesh Gaur**

Librarian,  
Jawaharlal Nehru University (JNU)  
New Delhi

**Prof. Anil D Sahasrabudhe**

Chairman  
All India Council for Technical Education  
7th Floor, Chanderlok Building  
Janpath, New Delhi

**Prof. V. Ramgopal Rao**

Director  
Indian Institute of Technology, Delhi  
Hauz Khas, New Delhi

---

**Prof. N Sathyamurthy**

Director  
IISER, Mohali  
SAS Nagar, Manauli

**Prof. Devang V Khakhar**

Director  
Indian Institute of Technology, Bombay  
Powai, Mumbai

**Prof. Appa Rao Podile**

Vice-Chancellor  
University of Hyderabad  
Gachibowli, Hyderabad

**Prof. Sheo Kumar Pandey**

Vice Chancellor  
Pt. Ravishankar Shukla University  
Amanaka G.E.Road, Raipur

**Prof. Sandeep Sancheti**

President, Manipal University  
Jaipur-Ajmer Expressway, Jaipur

**Dr. Partha Pratim Chakrabarti**

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Indian Institute of Technology, Kharagpur

**Prof. P P Das**

Professor, Dept of Computer Science  
Indian Institute of Technology, Kharagpur

**Mr. Maneesh Garg**

Joint Secretary (SE-I)  
Department of SEL  
Ministry of Human Resource Development  
Shastri Bhawan, New Delhi

**Prof. Huzar Saran**

Professor  
Dept of Computer Science and Engineering  
Indian Institute of Technology, Delhi  
Hauz Khas, New Delhi

**Prof. I V Malhan**

HOD, DLIS  
Central University of Himachal Pradesh  
Kangra, Himachal Pradesh

**Dr. Jagdish Arora (Convener)**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**National Steering Committee (NSC), e-Shodh Sindhu  
(As on 31<sup>st</sup> March 2017)**

**Ex. Officio Members**

**Dr. Partha Pratim Chakrabarti (Chairman)**  
Director  
Indian Institute of Technology, Kharagpur

**Dr. (Mrs.) Manju Singh**  
Jt. Secretary  
University Grants Commission  
Bahadur Shah Zafar Marg, New Delhi

**Prof. Ajit Kembhavi,**  
Emeritus Professor  
IUCAA, Pune

**Mr. R. Subrahmanyam**  
Additional Secretary (TE)  
MHRD, New Delhi

**Prof. K. K. Pant,**  
Professor-Incharge Library  
IIT Delhi (Representing INDEST-AICTE Consortium)

**Dr. Jagdish Arora (Convener)**  
Director  
INFLIBNET Centre  
Infocity, Gandhinagar

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Coordinator  
National Knowledge Resource Consortium (CSIR and DST)  
NISCAIR  
Satsang Vihar Marg, New Delhi

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North Eastern Hill University  
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Coordinator  
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Manesar, Gurgaon

**Dr. Sanjay V. Deshmukh**  
Vice-Chancellor  
University of Mumbai  
Santacruz East, Mumbai

**Mr. Yogesh Modi,**  
Scientist - D  
DESIDOC  
Metcalf House  
New Delhi (Coordinator, DRDO Consortium)

**Dr. Ananad A. Samuel**  
Vice-Chancellor  
VIT University  
Near Katpadi Road, Vellore

**Prof. A.P. Mittal**  
Member Secretary  
All India Council for Technical Education  
Janpath, New Delhi

**Dr Ravindra Kumar**  
Vice-Chancellor (I/C)  
Indira Gandhi National Open University (IGNOU)  
Maidan Garhi, New Delhi

---

**Prof. (Dr.) R. Venkata Rao**

Vice-Chancellor

National Law School of India University  
Nagarbhavi, Bengaluru

**Prof. Bhaskar Ramamurthi**

Director, Indian Institute of Technology  
Madras, IIT P.O., Chennai

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Surathkal

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Indian Institute of Science Education and  
Research, Pune

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Indian Institute of Management, Calcutta

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Director

IIIT Kancheepuram

**Prof. Anurag Kumar**

Director

Indian Institute of Science, Bengaluru

**Prof. Gautam Biswas**

Director

Indian Institute of Technology, Guwahati

**Dr. V. Raju**

Vice Chancellor

VIT University, Vellore

**Joint Negotiation Committee, e-Shodh Sindhu  
(As on 31st March 2017)**

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Former Director  
Inter-University Centre for  
Astronomy and Astrophysics (IUCAA)  
Pune

**Dr. Jagdish Arora (Convener)**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Dr. R S Rana,**

Senior Scientist and I/C  
Coordinator,  
CERA Consortium, New Delhi

**Dr. K. P. Singh**

Director & Coordinator (ERMED Consortium)  
National Medical Library  
New Delhi

**Mr. Ashok Kumar Rai,**

Scientist D (CS) & Incharge of e-Shodh Sindhu  
INFLIBNET Centre  
Infocity, Gandhinagar

**Mr. G Mahesh**

Coordinator, CSIR E-journal Consortium  
NISCAIR, Satsang Vihar Marg, New Delhi

**Dr. D.D. Lal**

Coordinator,  
DelCON (DBT), Gurgaon

**Mr. Yogesh Modi,**

Scientist - D  
DESIDOC  
Metcalf House  
New Delhi (Coordinator, DRDO Consortium)

**Nominated Members:****Dr N C Shivaprakash**

Librarian (I/C)  
Indian Institute of Science, Bengaluru

**Dr. Tamal Kumar Guha**

Librarian  
IIT Guwahati

**Member from Integrated Finance**

MHRD, New Delhi

**Member from TEL Bureau**

MHRD, New Delhi

**Resources Selection committee for CFTIs****Dr N C Shivaprakash (Chairman)**

Librarian (I/C)  
Indian Institute of Science, Bengaluru

**Prof. K. K. Pant,**

Professor-Incharge Library  
IIT Delhi (Representing INDEST-AICTE Consortium)

**Dr. Tamal Kumar Guha**

Librarian  
IIT Guwahati

**Dr. T S Kumbar**

Librarian  
IIT Gandhinagar

**Dr. H Anil Kumar**

Librarian  
IIM Ahmedabad

**Dr. Bibhuti Bhusan Sahoo**

Dy Librarian  
IIT Bhubaneswar

**Dr. Sandeep Kumar Pathak**

Dy Librarian  
IISER Bhopal

**Dr. B Sutradhar**

Librarian  
IIT Kharagpur

**Dr. Chandrakant Swain**

Librarian  
IIM Raipur

**Dr. Gopal Krishan**

Librarian  
NIT Kurushetra

**Dr. (Ms.) Sweety Mathew**

Librarian  
NIT Calicut

**Dr. Jagdish Arora**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Mr. Ashok Kumar Rai**

Scientist D (CS) & Incharge of e-Shodh Sindhu  
INFLIBNET Centre  
Infocity, Gandhinagar

---

## Resources Selection committee for Universities and Colleges

**Prof. M. Jagadesh Kumar (Chairman)**

Vice-Chancellor  
Jawaharlal Nehru University  
New Delhi

**Dr. Arun Kumar Sharma**

Librarian  
Assam University  
Silchar

**Dr. Dharam Veer Singh**

Librarian  
University of Delhi

**Prof. Anil Jain**

Director, Central Library  
University of Rajasthan  
Jaipur

**Dr. R Samyuktha**

Librarian  
Pondicherry University  
Puducherry

**Dr. Satish Kanamadi**

Librarian (I/C)  
Tata Institute of Social Sciences  
Mumbai

**Dr. B K Ahire**

Librarian (I/C)  
University of Mumbai  
Mumbai

**Dr. Jagdish Arora**

Director  
INFLIBNET Centre  
Infocity, Gandhinagar

**Dr. Soumitra Sarkar**

Librarian  
Calcutta University  
Kolkata

**Mr. Ashok Kumar Rai**

Scientist D (CS) & Incharge of e-Shodh Sindhu  
INFLIBNET Centre  
Infocity, Gandhinagar

**Ms. Priya Rai**

Dy Librarian  
National Law University  
New Delhi

## E-Resources Subscribed under E-Shodh Sindhu Consortium

## Resources for IITs &amp; IISc (17) for the Year 2107

Sl. No.	Resource Name	No. of Titles	No. of Inst.*
1	ACM Digital Library	61	17
2	American Institute of Physics	19	17
3	American Physical Society	13	17
4	Annual Reviews	44	16 (except Dhanbad)
5	ASCE	35	17
6	ASME	29	17
7	ASTM Standards	Database	17
8	Capitaline	Database	7 (Cat 1 except Guwahati)
9	CRISIL	Database	7 (Cat 1 except Guwahati)
10	Emerald Enhanced	298	16 (except Dhanbad)
11	Euromonitor Passport	Database	6 (Cat 1 except Guwahati & IISc Bangalore)
12	EPW	1	17
13	IEEE IEL Online		17
14	ISID	Database	17
15	Jgate+JCCC	Database	17
16	JSTOR	2500	17
17	Nature	1	17
18	Manupatra	Database	1 (IIT Kharagpur)
19	MathSciNet	Database	16 (except Dhanbad)
20	Optical Society of America	18	8 (Cat 1)
21	Oxford University Press	262	17
22	Project Muse	500+	16 (except Dhanbad)
23	Proquest-ABI/Inform Complete	5440	15 (except Indore, Jodhpur)
24	Science Direct Content Fees	varies	17
25	SIAM	16	16 (except Dhanbad)
26	SpringerLink Cross-Sharing Fees	1700	8 (Cat 1)
27	SciFinder	Database	16 (except Dhanbad)
28	Web of Science	Database	17
29	Westlaw India	Database	1 (IIT Kharagpur)



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**Resources for NITs (20) / SLIET (1) / NERIST (1) for the Year 2017**

<b>Sl. No.</b>	<b>Resource Name</b>	<b>No. of Titles</b>	<b>No. of Inst.*</b>
1	ACM Digital Library	61	22
2	American Institute of Physics	19	3
3	American Physical Society	13	8
4	ASCE	35	22
5	ASME	29	22
6	Emerald Enhanced	298	11
7	EPW	1	22
8	IEL Online	192	22
9	JSTOR	2500	22
10	Nature	1	22
11	Oxford University Press	262	22
12	Science Direct Content Fees	varies	17
13	ASTM Standards	Database	22
14	ISID	Database	22
15	Jgate+JCCC	Database	22
16	Web of Science	Database	22

**Resources for IIMs (13) for the year 2017**

<b>Sl. No.</b>	<b>Resource Name</b>	<b>No. of Titles</b>	<b>No. of Inst.*</b>
1	ACM Digital Library	61	8
2	Annual Reviews	44	All 13
3	Emerald Enhanced	298	All 13
4	EPW	1	All 13
5	JSTOR	2500	All 13
6	Nature	1	All 13
7	Oxford University Press	262	All 13
8	Project Muse	500	All 13
9	Proquest-ABI/Inform Complete	5440	All 13
10	Science Direct Content Fees	varies	All 13
11	Capitalline	Database	All 13
12	CRISIL	Database	All 13
13	Euromonitor	Database	All 13
14	INSIGHT	Database	All 13
15	ISID	Database	All 13

16	Jgate+JCCC	Database	All 13
17	Web of Science	Database	All 13

#### Resources for IISERs (5) for the Year 2107

Sl. No.	Resource Name	No. of Titles	No. of Inst.*
1	ACM Digital Library	61	1 (Kolkata)
2	American Institute of Physics	19	5
3	American Physical Society	13	5
4	Annual Reviews	44	All 5
5	EPW	1	All 5
6	JSTOR	2500	All 5
7	Nature	1	All 5
8	Oxford University Press	262	All 5
9	Project Muse	500	All 5
10	Science Direct Content Fees	varies	All 5
11	SIAM	16	All 5
12	ISID	Database	All 5
13	Jgate+JCCC	Database	All 5
14	MathSciNet	Database	All 5
15	SciFinder	Database	All 5
16	Web of Science	Database	All 5

#### Resources for IITs(3), NITIE, NIFFT etc (5) for the Year 2017

Sl. No.	Resource Name	No. of Institutions	No. of Titles
1	ACM Digital Library	IITs (3)	61
2	ASME	PDPM-IITDM, NITIE (1), NIFFT	29
3	Emerald Enhanced	PDPM-IITDM	298
4	EPW	All 5 institutions	1
5	IEEE ASPP+POP	IITs (3), NITIE (1)	192
6	JSTOR	All 5 institutions	2500
7	Nature	All 5 institutions	1
8	Oxford University Press	All 5 institutions	262
9	Proquest-ABI/Inform Complete	NITIE (1)	5440

10	Springer	IITs (3), NIFFT(1)	1400
11	ISID	All 5 institutions	Database
12	Jgate+JCCC	All 5 institutions	Database
13	Web of Science	All 5 institutions	Database

#### Resources for NITTTRs for the Year 2017

Sl. No.	Resource Name	No. of Titles	No. of Inst.*
1	ASME	29	3
2	EPW	1	3
3	IEEE ASPP+POP	192	3
4	JSTOR	2500	3
5	Nature	1	3
6	Oxford University Press	262	3
7	ISID	Database	3
8	Jgate+JCCC	Database	3
9	Web of Science	Database	3

#### Resources for Universities for the Year 2107

Sl. No.	Resource Name	No of Titles
	<b>Full-text Resources</b>	
1	American Chemical Society	50
2	American Institute of Physics	20
3	American Physical Society	13
4	Annual Reviews	43
5	Economic & Political Weekly	1
6	Emerald Journals	133/298
9	Institute of Physics	46
10	JSTOR	3000+
11	Nature	1
13	Oxford University Press	262
14	Portland Press	5
15	Project Euclid	39
17	Project Muse	600+
18	Royal Society of Chemistry	26
19	SIAM	16

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21	Springer	1400+
22	Taylor & Francis	1072
23	Wiley	908
	<b>Database</b>	
1	ISID	Database
2	JGate + JCCC	Database
3	MathSciNet	Database
5	Web of Science	Database
	<b>Legal Database</b>	
1	Manupatra	Database
2	Westlaw India	Database

T N SHAH & CO.  
CHARTERED ACCOUNTANTS

503, Abhishek Complex  
Sector-11, Gandhinagar  
Telephone No.: 079 -23222152

**Information and Library Network Centre**  
(An Autonomous Inter-University centre of UGC)  
Infocity, Gandhinagar - 382 007

**BALANCE SHEET AS AT 31<sup>st</sup> MARCH, 2017**

SOURCES OF FUNDS		Schedule No.	F.Y. 2016-2017 (Current Year)	(Amount – Rs.)	
				F.Y. 2015-2016 (Previous Year)	
UNRESTRICTED FUNDS					
CORPUS		01	11,91,67,860.61	24,05,30,817.09	
GENERAL FUND		02	39,55,58,915.27	28,09,92,000.00	
DESIGNATED/EARMARKED FUNDS		03	0.00	0.00	
RESTRICTED FUNDS		04	45,70,28,537.21	1,13,66,50,741.50	
LOANS/BORROWINGS		05	0.00	0.00	
Secured			0.00	0.00	
Unsecured			0.00	0.00	
CURRENT LIABILITIES AND PROVISIONS		06	4,98,26,311.00	5,98,79,502.00	
TOTAL			1,02,15,81,624.09	1,71,50,53,060.59	
APPLICATION OF FUNDS					
FIXED ASSETS		07	36,53,71,739.94	39,50,04,669.84	
Tangible Assets			0.00	5,54,245.43	
Intangible Assets			0.00	0.00	
Capital Work-In-Progress			0.00	0.00	
INVESTMENTS		08		0.00	
Long Term			0.00	0.00	
Short Term			14,97,81,300.00	1,12,36,83,343.00	
CURRENT ASSETS		09	43,02,53,837.69	12,09,22,025.32	
LOANS, ADVANCES & DEPOSITS		10	7,61,74,746.46	7,48,88,777.00	
TOTAL			1,02,15,81,624.09	1,71,50,53,060.59	
NOTES ON ACCOUNTS		22			

As per our report of even date attached.  
For T N SHAH & Co.  
Chartered Accountants



[T. N. Shah]  
FRN: 109802W  
MEM. NO.: 042748  
Date: 21.07.2017

Place: Gandhinagar  
Date: 21.07.2017

Information and Library Network Centre, (An IUC of UGC)

The above Balance Sheet to the best of our belief contains a true account of the Funds and Liabilities and Properties & Assets of the Institution.

[Dr. Jagdis Arora]  
Director



Place: Gandhinagar  
Date: 21.07.2017

[Harish Chandra]  
Administrative Officer-(PA&F)

**Information and Library Network Centre**  
(An Autonomous Inter-University Centre of UGC)  
Infocity, Gandhinagar - 382 007

**INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31<sup>st</sup> MARCH, 2017**

	Schedule No.	F.Y. 2016-2017 (Current Year)				F.Y. 2015-2016 (Previous Year)	
		Unrestricted Funds		Restricted Fund	Total	Total	(Amount - Rs.)
		Corpus	Designated fund				
<b>INCOME</b>							
ACADEMIC RECEIPTS	11	0.00	0.00	0.00	2,08,139.00	2,08,139.00	6,29,096.00
GRANTS & DONATIONS	12	0.00	0.00	0.00	6,38,12,000.00	6,38,12,000.00	3,90,75,000.00
INCOME FROM INVESTMENTS	13	0.00	0.00	0.00	0.00	0.00	0.00
OTHER INCOMES	14	0.00	0.00	0.00	2,83,46,520.00	2,83,46,520.00	2,38,14,897.13
<b>TOTAL (A) :</b>		-	-	-	9,23,66,659.00	9,23,66,659.00	6,35,18,993.13
<b>EXPENDITURE</b>							
STAFF PAYMENTS & BENEFITS	15	0.00	0.00	0.00	3,29,97,756.00	3,29,97,756.00	3,03,64,604.00
ACADEMIC EXPENSES	16	0.00	0.00	0.00	39,28,595.00	31,79,479.00	31,79,479.00
ADMINISTRATIVE AND GENERAL EXPENSES	17	0.00	0.00	0.00	5,80,14,152.87	5,80,14,152.87	5,83,96,744.61
TRANSPORTATION EXPENSES	18	0.00	0.00	0.00	7,47,870.00	7,47,870.00	9,09,364.00
REPAIRS & MAINTENANCE	19	0.00	0.00	0.00	34,64,930.00	34,64,930.00	21,70,190.00
FINANCE COSTS	20	0.00	0.00	0.00	9,481.84	9,481.84	29,125.00
OTHER EXPENSES	21	0.00	0.00	0.00	-85.50	-85.50	78,344.43
<b>TOTAL (B) :</b>		-	-	-	9,91,62,700.21	9,91,62,700.21	9,51,27,821.04
<b>BALANCE BEING EXCESS OF INCOME OVER EXPENDITURE (A-B)</b>		-	-	-	(67,96,041.21)	(67,96,041.21)	(3,16,08,827.91)
TRANSFER TO/FROM DESIGNATED FUND							
BUILDING FUND							
OTHERS (SPECIFY)							
<b>BALANCE BEING SURPLUS/(DEFICIT) CARRIED TO CORPUS/CAPITAL FUNDS</b>		-	-	-	(67,96,041.21)	(67,96,041.21)	(3,16,08,827.91)
<b>NOTES ON ACCOUNTS</b>	22						

As per our report of even date attached  
For T N Shah & Co  
Chartered Accountants



[ T N Shah ]  
P23241028  
FRN : 109802W  
MEM. NO : 042748  
Place : Gandhinagar  
Date : 21.07.2017

*[Signature]*  
[ Harish Chandra ]  
Administrative Officer-(PA&F)

*[Signature]*  
[ Dr. Jagdish Aora ]  
Director



Place : Gandhinagar  
Date : 21.07.2017

Information and Library Network Centre, (An IUC of UGC)



SCHEDULE FORMING PART OF BALANCE SHEET AS AT 31<sup>st</sup> MARCH, 2017

	UGC-INFONET Grants-in-Aids	E-Subscription Grants-in-Aids	Swayam Pradha Project	North Eastern Region	Excess Amt. of Asso. Mem.	UGC Website Maintenance	UGC Grants for Shodhganga	Internet Conn. at UGC	CUG Project	Integrated E-Content Portal
<b>SCHEDULE - 4 RESTRICTED FUNDS :</b>										
a) Opening balance of the funds	50,14,497.00	7,29,40,496.00	0.00	3,01,98,522.00	47,53,574.50	0.00	14,91,896.00	0.00	1,01,308.00	43,65,412.00
b) Additions to the Funds:										
i. Donation/grants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Donation/grants - E-Subscription (UGC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Donation/grants - MHRD, New Delhi	0.00	0.00	5,00,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ii. Income from investments made of the funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
iii. Accrued interest on investments of the funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
iv. To be recovered from UGC/MHRD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL (a+b)</b>	<b>50,14,497.00</b>	<b>7,29,40,496.00</b>	<b>5,00,000.00</b>	<b>3,01,98,522.00</b>	<b>47,53,574.50</b>	<b>10,31,658.00</b>	<b>36,74,920.00</b>	<b>9,40,387.00</b>	<b>18,41,308.00</b>	<b>43,65,412.00</b>
<b>objectives of funds</b>										
i. Capital Expenditure										
- Fixed Assets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>										
ii. Revenue Expenditure										
- Salaries, Wages and allowances etc	0.00	0.00	1,08,414.00	0.00	0.00	7,50,404.00	8,36,216.00	4,53,548.00	3,91,032.00	3,77,580.00
- Rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Other Administrative Exps.	50,14,497.00	7,29,40,496.00	89,153.00	1,53,07,777.00	47,53,574.50	2,81,254.00	28,38,704.00	4,86,839.00	1,03,246.00	19,52,754.00
<b>Total (c)</b>	<b>50,14,497.00</b>	<b>7,29,40,496.00</b>	<b>1,97,567.00</b>	<b>1,53,07,777.00</b>	<b>47,53,574.50</b>	<b>10,31,658.00</b>	<b>36,74,920.00</b>	<b>9,40,387.00</b>	<b>4,94,278.00</b>	<b>23,30,334.00</b>
<b>NET BALANCE AS AT THE YEAR END (a+b-c)</b>	<b>0.00</b>	<b>0.00</b>	<b>3,02,433.00</b>	<b>1,48,90,745.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>13,47,030.00</b>	<b>20,35,078.00</b>



SCHEDULE - 4 RESTRICTED FUNDS :	Vidwan Expert Database	UGC Scheme SA-III	E-Shodh Sindhya AICTE	E-Shodh Sindhya	ICSSR	NIRF	NML	N-LIST
a) Opening balance of the funds	0.00	0.00	13,80,421.00	1,01,20,29,656.00	36,30,702.00	3,36,049.00	4,08,203.00	1,68,30,228.76
b) Additions to the Funds:								
i. Donation/grants	9,87,175.00	0.00	7,06,92,660.00	1,85,31,164.00	0.00	1,03,15,500.00	42,26,972.00	1,50,13,762.70
Donation/grants - E-Subscription (UGC)	0.00	0.00	0.00	7,29,40,496.00	0.00	0.00	0.00	0.00
Donation/grants - MHRD, New Delhi	0.00	0.00	0.00	2,35,00,000.00	0.00	0.00	0.00	0.00
ii. Income from investments made of the funds	0.00	0.00	0.00	3,09,06,930.00	0.00	0.00	0.00	0.00
iii. Accrued interest on investments of the funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,47,060.00
iv. To be recovered from UGC/ MHRD	1,45,277.00	11,35,395.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL (a+b)</b>	<b>11,32,452.00</b>	<b>11,35,395.00</b>	<b>7,20,73,081.00</b>	<b>3,48,44,06,246.00</b>	<b>36,30,702.00</b>	<b>1,08,51,549.00</b>	<b>46,35,180.00</b>	<b>3,32,91,051.46</b>
<b>objectives of funds</b>								
i. <b>Capital Expenditure</b>								
- Fixed Assets	76,650.00	0.00	0.00	0.00	2,85,600.00	0.00	0.00	0.00
- Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>								
ii. <b>Revenue Expenditure</b>								
- Salaries, Wages and allowances etc	9,21,496.00	10,03,390.00	0.00	4,82,194.00	11,06,865.00	25,75,153.00	0.00	0.00
- Rent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
- Other Administrative Exps	1,34,306.00	1,32,005.00	1,95,37,547.00	3,14,04,57,482.25	4,78,011.00	28,61,862.00	35,56,293.00	0.00
- Current Liabilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>								
<b>TOTAL (c)</b>	<b>11,32,452.00</b>	<b>11,35,395.00</b>	<b>1,95,37,547.00</b>	<b>3,14,09,39,676.25</b>	<b>18,70,476.00</b>	<b>54,36,815.00</b>	<b>35,56,293.00</b>	<b>0.00</b>
<b>NET BALANCE AS AT THE YEAR END (a+b-c)</b>	<b>0.00</b>	<b>0.00</b>	<b>5,25,35,534.00</b>	<b>34,34,68,568.75</b>	<b>17,60,226.00</b>	<b>52,14,734.00</b>	<b>10,78,887.00</b>	<b>3,32,91,051.46</b>





SCHEDULE - 4 RESTRICTED FUNDS :	TOTALS			
	MGCB	FSKAN A/c.	CUH	F.Y. 2016-2017 (Current Year)
a) Opening balance of the funds	0.00	0.00	0.00	1,15,34,80,970.25
b) Additions to the Funds:				
i. Donation/grants	7,78,345.00	3,45,000.00	0.00	0.00
Donation/grants - E-Subscription (UGC)	0.00	0.00	0.00	12,36,30,578.70
Donation/grants - MHRD, New Delhi	0.00	0.00	0.00	7,29,40,496.00
ii. Income from investments made of the funds	0.00	0.00	0.00	2,35,05,00,000.00
iii. Accrued interest on investments of the funds	0.00	0.00	0.00	3,09,06,930.00
iv. To be recovered from UGC/MHRD	0.00	0.00	0.00	4,47,060.00
TOTAL (a+b)	7,78,345.00	3,45,000.00	1,48,246.00	55,83,987.00
c) Utilisation/Expenditure towards objectives of funds				3,31,17,33,859.88
i. Capital Expenditure				
- Fixed Assets	0.00	0.00		19,41,608.00
- Others	0.00	0.00		0.00
Total				
ii. Revenue Expenditure				
- Salaries, Wages and allowances etc	0.00	0.00	45,000.00	90,51,292.00
- Rent	0.00	0.00	0.00	0.00
- Other Administrative Exps	0.00	19,096.00	1,03,246.00	3,27,10,47,942.75
- Current Liabilities	0.00			0.00
Total				
TOTAL (c)	0.00	19,096.00	1,48,246.00	3,28,04,61,484.75
NET BALANCE AS AT THE YEAR END (a+b-c)	7,78,345.00	3,25,904.00	0.00	45,70,28,537.21
				2,17,50,82,918.38
				1,13,66,50,741.50



Information and Library Network Centre, (An IUC of UGC)