# ANNUAL REPORT

## 2011-12

SOUL

UGC-Infonet 2.0

IndCat

e-PG Pathshala

Shodhganga

Digital Library Consortium

Open Journals System

N-LIST

## Information and Library Network Centre, Ahmedabad
### An IUC of University Grants Commission

INFLIBNET

# Annual Report

## (April 1, 2011 – March 31, 2012)



**Information and Library Network Centre**

**Ahmedabad**

**2012**

# Contents

**Appendices**

## From the Director's Desk

**Dr. Jagdish Arora**
**Director**

I am pleased to present the Annual Report of the INFLIBNET Centre for the Financial Year 2011-2012. Annual Report is an opportunity for an institute to reflect upon its accomplishments and shortcomings during the year. It was once again a highly successful year for the Centre as our existing programmes were rejuvenated, projects and programmes that were launched during past few years establish their credibility and acceptability amongst educational institutions and newer responsibilities were assigned to the Centre by the UGC as well as by the MHRD.

Our new Institute Building, constructed on the land measuring 10,000 Sq. Mtrs., allotted to the Centre by Government of Gujarat in the Infocity, Gandhinagar, can be considered as one of our biggest achievements during the year and a landmark in the history of INFLIBNET Centre. The building is in advance stage of construction and we hope to move into our new premises within next six month from our existing location in the Residential Blocks of Gujarat University. The building consists of Academic, Administrative and Residential Blocks to accommodate laboratories, lecture and meeting rooms, library, auditorium, guest rooms and residential flats. It would be a state-of-the-art, eco-friendly, energy-efficient building based on green technology. The building has provision for water-harvesting, water conservation, re-circulation of human waste, etc.

The Centre has made progress in all spheres of activities and services. A number of noteworthy developments took place during the period under report. The UGC's Library Automation Scheme for the Universities that was launched during X Plan Period was revived. In addition to 142 universities that were funded for library automation during IX & X Plan Period, 24 additional universities were given funds for automation of their university libraries by the UGC on recommendation of INFLIBNET Centre. These 24 universities signed MoU with INFLIBNET Centre for creating their bibliographic records as per the standards prescribed by the INFLIBNET Centre and contributing them for the union catalogue (IndCat) of INFLIBNET Centre.

Substantial progress was made in the Union Catalogue of Books, Theses and Serials both in terms of number of records added to it as well as new features and functionalities added to the hosting platform. The Centre received 11,15,575 lakhs records from 13 new universities that joined the initiative during the year under report and 8,99,155 lakhs additional bibliographic records from universities that are already participating in the initiative. These records were duly uploaded into the union database after authentication. The union catalogue of books has grown from 6.5 lakh records in 1999 to 124 lakhs records in 2012. Likewise, Union Database of Theses grew from 15,000 records in 1995 from 82 universities to 2,44,927 records as on March 31, 2012 from 270 universities. Moreover, records in union catalogue of theses are now linked to their full-text in Shodhganga, wherever available.

New thrust was given to the Expert Database with complete change of hosting platform with several value-added services. Several new tools and techniques were used to enhance the functionality of the platform. 219

profiles were added during the year under report and more than 16,590 profiles were verified and updated from websites of respective institutions during the year.

A new version of Union Catalogue Management System (UCMS) was developed for handling MARC based records. The new interface facilitates browse and search using indexed data. The interface facilitates editing and updating of XML files as well as find and replace contents in multiple files. The new interface also facilitates import and export of updated data from the IndCat for integration into local library software. Moreover, features like faceted-hit highlighting, free-text search, etc. was also introduced in union catalogue using SOLR, an open source Internet technology.

New software patches were released for SOUL 2.0 introducing new features and functionalities. These software updates are available through website of SOUL 2.0 completely free-of-cost to the existing users. The software has more than 2,577 installations across the country and versions 2.0 of the software were given free-of-cost to buyers of first edition of SOUL software. It is a matter of pride that the software is being used by a number of leading universities in the country including MS University Baroda, Madras University, Mumbai University, Guhati University and Assam University, etc. I am happy to inform that Banaras Hindu University, after trying several LMS software, has finally migrated to SOUL 2.0 during the year under report. The INFLIBNET Centre completed the task of conversion of over 9 lakh bibliographic records in a record period of 2 months for BHU. The SOUL 2.0 has now fully commissioned and made functional at BHU.

The Centre is now working on platform-independent web edition of SOUL capable of running on any operating system (Unix, Linux or Windows) with capabilities to work in cloud environment. The Web edition of SOUL will be based on REST protocol that relies on a stateless, client-server, cacheable communications protocol with HTTP as back-end protocol. Currently, Administration and Circulation Modules of Web edition is under development. The SOUL Query Management System (SQMS), developed last year, was tested thoroughly and was fully commissioned. The system was fine tuned and is now ready for launch. The Centre continued to get the support of 7 SOUL Coordinators and associated SOUL technical assistants across the country. Regular meetings of SOUL Coordinators were organised to re-train them and to take the stock of their activities and contributions during the year under report.

The Centre firmly subscribes to the open source and open access philosophy. As such, we continued to work towards providing open access to scholarly e-content through open journals and institutional repositories. The Open Journal Access System (OJAS) now hosts 14 journals from different institutions of higher learning and Shodhganga, a Repository of Electronic Theses and Dissertations has grown both in terms of number of theses hosted in it as well as number of universities who have signed MoU on Shodhganga with the INFLIBNET Centre. As on 31st March, 2012, students from 50 universities started submitting their theses into the repository and 52 universities have signed MoU with the Centre on Shodhganga. The total number of theses available in Shodhganga repository has grown to 2710. I am happy to inform that the UGC, on recommendation of the INFLIBNET Centre, has agreed to incentivise universities that are signatory to MoU on Shodhganga. These incentives would include funds for digitization of back lists of theses, for setting-up of ETD laboratory and access to anti-plagiarism software package to eligible universities.

Shodhganga web site is maintained as a national portal on ETD with information about ETD initiatives, links to other national and international ETD repositories, IPR and other related issues, etc. Electronic version of the manual on Shodhganga with detailed information about roles and responsibilities of INFLIBNET Centre, universities, research scholars, process of registration and submission of theses, citation style for bibliographic details, search and browse interface for Shodhganga, etc. is available on the website. Printed copies of the manual were distributed to the universities signatory to MoU on Shodhganga with INFLIBNET Centre. I am very happy to inform that the Shodhganga Project received "e-INDIA Jury Choice Award" for the Best ICT Enabled Higher Education Institute for the year 2011. It may be noted that this award was received by the INFLIBNET Centre in the year 2010 for N-LIST project.

A new repository called Shodhgangotri was launched to complement Shodhganga. While Shodhganga hosts full-text of Ph.D. theses, Shodhgangotri hosts approved synopses or proposals submitted by research scholars to universities in India for registering themselves under the Ph.D programme. As on 31st March, 2012, 160 synopses were hosted into Shodhgangotri.

The UGC-Infonet Digital Library Consortium, launched in 2004, has grown both in terms of number of beneficiary institutions as well as number of resources that are being subscribed. The programme provides differential access to more than 7,500 core and peer-reviewed scholarly journals in electronic format and 11 bibliographic databases from 25 publishers to more than 200 eligible universities including 14 National Law Schools / law universities that were given access to three resources in the field of law. Moreover, more than 120 private universities and other institutions of higher learning are getting the benefit of access to e-resources under the Associate Membership Programme of the UGC-INFONET Digital Library Consortium. I am pleased to inform that subscription to ScienceDirect with a clause to retain print by universities in last financial year was changed to print-independent subscription during the financial year under report. As such, from January 2012 onwards, the universities that are accessing ScienceDirect through the Consortium are free to drop their print subscription to Elsevier Science journals. Moreover, for the first time in the history of UGC-Infonet Digital Library Consortium, e-journal archives were purchased for 20 to 30 universities from American Institute of Physics (AIP), Royal Society of Chemistry (RSC), Oxford University Press (OUP), SIAM and selected collections from Elsevier Science.

The usage of e-resources provided through the Consortium grew both in terms of number of downloads as well as number of searches conducted. There is an overall 70.69% increase in number of downloads from 2010 to 2011. Moreover, average cost of article downloaded from the journals accessible through the Consortium came down to Rs. 57.24. More than 15,327 articles were supplied by the INFLIBNET Centre and its 22 ILL Centres to other universities using JCCC that provides content level access to all articles covered in journals subscribed by the Consortium as well as by 22 ILL Centres. A meeting of these 22 university libraries, functioning as ILL Centres of the INFLIBNET Centre, were organised at Informatics India, Bangalore to take a stock of status of resources sharing through JCCC. Six more universities were introduced as ILL Centres to widen the network of participating universities.

Substantial progress was made under the "National Library and Information Services Infrastructure for Scholarly Content" (N-LIST), jointly executed by the INFLIBNET Centre and IIT Delhi, with financial support from the MHRD under its National Mission on Education through ICT. The programme provides online access to more than 3,000 electronic journals and 80,000 e-books to Govt.-aided as well as non-aided colleges. New e-book collections were added to the existing book collections on on-time purchase and perpetual access basis from Cambridge University Press, Hindustan Book Agency, Springer and Taylor & Francis. It is indeed a matter of pride that the N-LIST Project was awarded the Skoch Digital Inclusion Award for the year 2011.

I am happy to inform that the UGC-Infonet Connectivity Programme stands winded-up as all the universities enrolled under this programme have migrated to the National Knowledge Network / NME-ICT to avail greater network connectivity. Moreover, the INFLIBNET Centre itself has migrated to National Knowledge Network and is availing 1 Gbps network connectivity. The Centre has proposes a new format for the UGC-infonet Connectivity Scheme wherein it is proposed to set-up video-conferencing facilities in universities and INFLIBNET Centre, Data Centers at INFLIBNET Centre and selected universities and UGC-Infonet Resource Centres at every university in order to strengthen the computer and network infrastructure available in the universities. The proposal is submitted to the UGC as a part of XII Plan Period projections of the INFLIBNET Centre.

The Centre has intensified its activities in the field of scientometircs and bibliometric with an aim to measure impact of access to e-resources on research productivity in universities. The Centre is developing research

profiles for every member university. These research profiles would include research output of a university, annual and cumulative growth of research publications over a period of few decades, impact of research in terms of citations received, H index, focused areas of research of a university including its strength and weaknesses, international and national collaborations in different disciplines, correlation between number of articles downloaded from e-resources and number of research articles authored by researchers in a given university.

The 8th PLANNER 2012 (Promotion of Library Automation and Networking in North Eastern Region) was organised by the INFLIBNET Centre at Sikkim University, Gangtok from 1st to 3rd March 2012 on the theme "Building Participatory Library Services in Digital Era", in collaboration with the Sikkim University, Gangtok. The Convention was attended by 305 delegates and invitees from all over the country. 11 publishers participated in the exhibition arranged as part of the Convention. Out of 95 submissions, 51 papers were selected for presentation and 17 papers were selected for poster presentations. The "INFOPORT: A Subject Gateway for Indian Electronic Resources" developed by the INFLIBNET Centre was launched by Prof. Mahendra P Lama, Vice-Chancellor, Sikkim University during inaugural session of 8th PLANNER 2012 held on 1st March, 2012 at the Sikkim University, Gangtok The INFOPORT serve as a comprehensive gateway to all Indian scholarly content available in open access.

The Centre was assigned the task of coordinating the activity of e-content creation in 77 subjects at post-graduate level under the project entitled "e-PG Pathshala", awarded to the UGC by the Ministry of Human Resource Development under its National Mission on Education through ICT. The Centre has configured A Tutor, an open source Learning Management System to host the e-content created under this project. Moreover, E-PG Pathshala Management System is also being developed to manage and administer the flow of work. Moreover, the UGC has also given the responsibility of development and maintenance of UGC's Website as well as for automation of its Grant Management System, scholarships and fellowships. Online interfaces were developed and implemented successfully for inviting applications for ten scholarships and fellowships. A dedicated server for the UGC website and schemes was set-up that is co-located at the Data Centre of the BSNL.

Imparting training to existing and new users of the SOUL software is one the regular and committed activities of the Centre. In all, Centre has conducted 102 training programmes on SOUL software including 12 training programmes that were organized during the year under report. The 100th SOUL 2.0 training programme was organised from 30th Jan., 2013 to 03rd Feb., 2013 at the INFLIBNET Centre, Ahmedabad. The programme was inaugurated by Dr. Parimal Trivedi, Vice-Chancellor, Gujarat University. The new website of SOUL 2.0 and mobile website of the INFLIBNET Centre was also launched during this programme.

I am sure, the user community in institutions of higher learning would enjoy going through the report and take note of our accomplishments and value-added services during the year under report.

(**Jagdish Arora**)

INFLIBNET Centre, Ahmedabad

## 1. Introduction

The Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC) located at the Gujarat University Campus, Ahmedabad. 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, on behalf of the UGC, has taken-up a number of initiatives for the benefit of the academic community. These initiatives include i) UGC-Infonet Digital Library Consortium that extends access to selected scholarly electronic journals and databases to the universities in different disciplines; ii) Shodhganga: A Reservoir of Indian Electronic Theses and Dissertations, that enables online submission of theses and dissertations by research scholars in digital repository set-up at the INFLIBNET Centre; iii) Shodhgangotri that enables research scholars to submit approved synopsis of research proposal submitted to the university; iv) Open Journals Access System (OJAS) @ INFLIBNET that facilitates faculty and researchers in Indian universities to launch their open access journals on OJAS platform offered by INFLIBNET Centre; and v) Access management technologies that would facilitate users to access e-resources irrespective of their physical location. Besides, the Centre through a project entitled "National Library and Information Services Infrastructure for Scholarly Content" (N-LIST) provides access to electronic journals and electronic books to eligible colleges.

## 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;

- 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;

⏩ to provide reliable access to document collection of libraries by creating on-line 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 provide access to bibliographic information sources with citations, abstracts, etc. through indigenously created databases of the Sectoral Information Centres of NISSAT, UGC Information Centres, City Networks and such others and by establishing gateways for online accessing of national and international databases held by the national and international information networks and centres, respectively;

⏩ to develop new methods and techniques for archiving of valuable information available as manuscripts and information documents in difference 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;

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 constructing its Institutional Building on land measuring 10,000 sq. mtrs (approx. 2.5 acres) allotted to the Centre by the Govt. of Gujarat free-of-cost. The land is located in the Infocity, Gandhinagar amidst reputed educational institutions such as NID, DAIIT and NIFT. The Centre has hired services of M/s Vastu Shilpa Consultants as its Architect for designing and constructing the building; M/s.

Katira Construction, civil contractor for constructing the academic and administrative blocks of the building, M/s Malani Constructors for constructing the Residential Block of the Building and M/s. Ananjiwala Consultants, Project Management Consultants for quality control and for supervising the construction activity. The construction of the academic and administrative blocks of the Institutional building was started soon after the Bhoomi Pooja on 27th October 2009. The Foundation Stone for the Academic and Administrative Blocks of the building was laid by the then Hon'ble Chairman, UGC and President, INFLIBNET Council, Prof. Sukhadeo Thorat on 27th January, 2010. Construction of Residential Block of the Institute building was started in October, 2011 after receiving clearances from the UGC.

The building of the Centre 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 project was to be executed on a turn-key basis from concept to completion within a period of two years, however, an extension of 12 months had to be given to the contractor for completing the Administrative and Academic Blocks of the Building. In the first phase, total built-up area of 1,20,000 sq. ft. is being constructed that include Academic and Research Blocks, Administration, Library, Auditorium and Lecture Halls at a cost of around Rs. 22 crores. In the second phase, 65,000 sq. ft. built-up area is being undertaken with an estimated cost of Rs. 12.50 Crores which includes Hostels, Guest House, Staff Quarters, Director's Residence, etc. Figure 1 depicts INFLIBNET Centre's Building under construction.



**Fig. 1:  INFLIBNET Centre's Building under Construction**

As on 31st March, 2012, most of the physical construction of academic and administrative block of the building has been completed from basement to the terrace level including overhead tank. The aerated block masonry and inner bricks masonry has reached up to 6th floor after getting clearances from M/s Voltas. The contractor has procured construction materials like polished Kota stone and the USF false floor tiles in sufficient quantities. The fire fighting work accessories has been procured on the site and its installation is in progress. The contractors are now working on plastering, flooring, electric and network

wiring, stone cladding (exteriors), painting and other finishing jobs. The work for air-conditioning of the building is being done by M/s Voltas. It is expected that the academic and administrative blocks of the building will be completed in all respect by the end of September, 2012.

The construction of Residential Block of the building was started by M/s Malani Constructors in October 2011. The work of construction of two floors of the building has been completed including basement and PCC footing. The construction work of Residential Block of the building is going on satisfactorily. The Residential Block of the building is expected to be completed by October, 2012. Progress made in the construction of the building is being reviewed in the weekly meetings convened at the site office with representatives of Vastu Shilpa, M/s. Katira Construction, M/s Malani Constructions, M/s. Anandjiwala Technical Services and INFLIBNET Centre. The current composition of the Building committee is given in Appendix I. Four meetings of the Building Committee were held during the financial year under report.

## 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 described 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 21. 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. The Governing Board meets at least twice 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 eight members. It has seven ex-officio members and one nominated member. 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 is given in Appendix V.

## 7. Scientific and Technical Activities

The scientific and technical manpower available in the Centre are clustered into a number of working groups based on functional requirements of the Centre. 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 by the working groups of the Centre during the period under report are given below:

### 7.1. 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 being 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. Specialized training programmes were organized on topics related to library automation, standard bibliographic formats, tools and techniques and retro-conversion. An induction training programme on library automation is proposed to be organized to these 24 university libraries.

### 7.2. Database Management R & D Group

The Centre, since its inception, has a mandate to build and maintain union databases of library resources available in Indian university libraries. The Centre has developed "IndCat: Online Union Catalogue of Indian Universities" that contains bibliographic records of books, serials and theses contributed by participating universities in all disciplines. The IndCat consists of bibliographic records that are collected, collated and merged from 145 participating universities in different bibliographic formats. These records

are converted into one common format and merged into IndCat with records having holding information for each participating universities. The IndCat is available in open access through Developed in-house web interface at http://indcat.inflibnet.ac.in. Apart from the databases of books, serials and theses available through IndCat, the Centre also has other non-bibliographic databases developed for benefit of the academic community. The major union databases and number of records in each database are listed below in Table 1.

| Name of the Database | No. of Records | No. of Institutions |
|---|---|---|
| Books | 1,24,01,438 | 145 |
| GujCat | 11,01,233 | 15 |
| NERCat | 2,10,361 | 8 |
| Theses | 2,44,927 | 270 |
| Current Serials | 35,209 | 213 |
| Serials (Holdings) | 50,164 | 210 |
| CEC's Video Database | 15,000 | 18* |
| Subject Experts | 36,500 | 1519 |
| Research Project | 13,701 | UGC, CSIR, ICAR, DST, etc |

**\*CEC and its 17 media Centres**

**Table 1: Number of Records in IndCat and Other Databases**

The Database Management R & D Group comprises of personnel with background in computer and library science. The personnel with background in library and information science are responsible for obtaining bibliographic records from different universities in different formats and converting them into one common prescribed standard format. They are also responsible for merging new records into the union database after due authentication. The personnel with computer science background are responsible for developing software tools for data conversion, data authentication and web-based search interface for the union catalogue. Union Catalogue Management System (UCMS) and IndCat have been developed in-house to address the requirements of the Database Management R & D Group as mentioned above.

### 7.2.1. IndCat: The Union catalogue of Books, Journals, Theses and Videos (
http://indcat.inflibnet.ac.in/indcat/)

A brief description of three components of the union catalogues i.e. books, journals and theses maintained by the Centre is given below, Figure 2 depicts screenshot of IndCat.
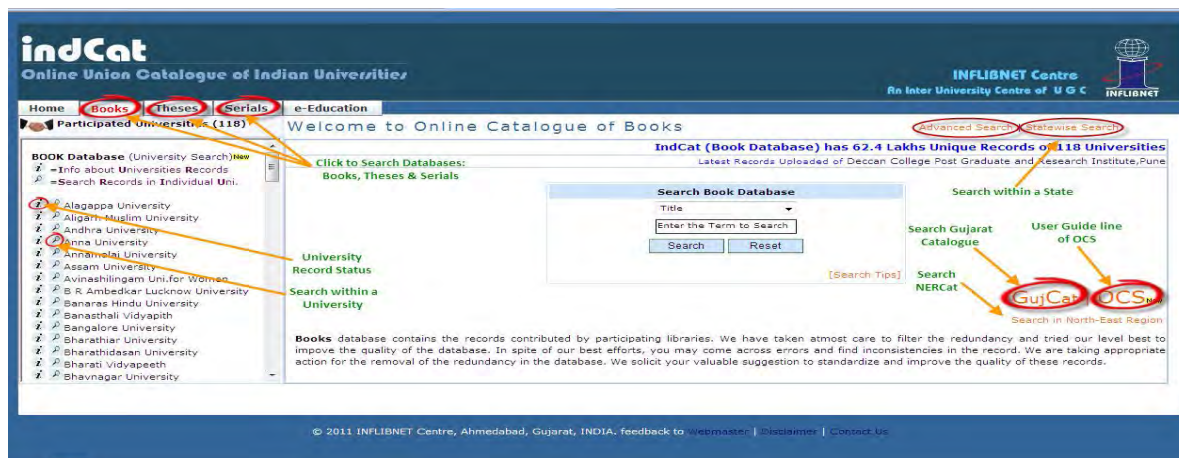
**Fig. 2: Search Interface for Books, Theses, Serials and Video**

## 7.2.1.1. Union Catalogue of Books

*Shri Abhishek Kumar, Scientist B (CS)*
*Mrs. Vaishali Shah, Scientist B (LS)*
*Shri Dharmesh Shah, STA-I (CS)*
*Ms. Seema Chavda, Project Assistant (LS)*

### 7.2.1.1.1. Process for Building Union Database of Books

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

**Step 1.** Universities create bibliographic records of books purchased by them using their local Library Management System (LMS). These bibliographic records are exported in standards formats and sent to the INFLIBNET Centre as per the terms of MoU signed between INFLIBNET Centre and universities. The Centre receives bibliographic records from different universities in different formats/softwares such as MS-Excel, MS-Access, dBase/Foxpro, CDS/ISIS, WINISIS, Soul Backup, Koha, VTLS, Libsys, CCF ISO, MARC ISO and its variants.

**Step 2.** Records received in different formats from different universities are converted into MARC21 & CCF by using tag mapping features of the CDS/ISIS Software.

**Step 3.** All records undergo the process of authentication, using UCMS so as to correct typographical errors in different fields such as place, publisher, edition, year of publication, etc, before duplicate data checking and merging of new records into union catalogue of books.

**Step 4.** New records, merged into IndCat, are made searchable through a web-based interface.

Searches can be performed on title, words in title, author, subject, ISBN, location, place and publisher in the union database of books through IndCat interface. The IndCat interface provides for 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 available in IndCat for all the participating universities. The search results retrieved from the IndCat can be displayed in following two formats:

➠ **Brief**: By default, retrieved records are displayed in brief. A brief bibliographic record contains title, author, 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 3 depicts bibliographic details of searched records.
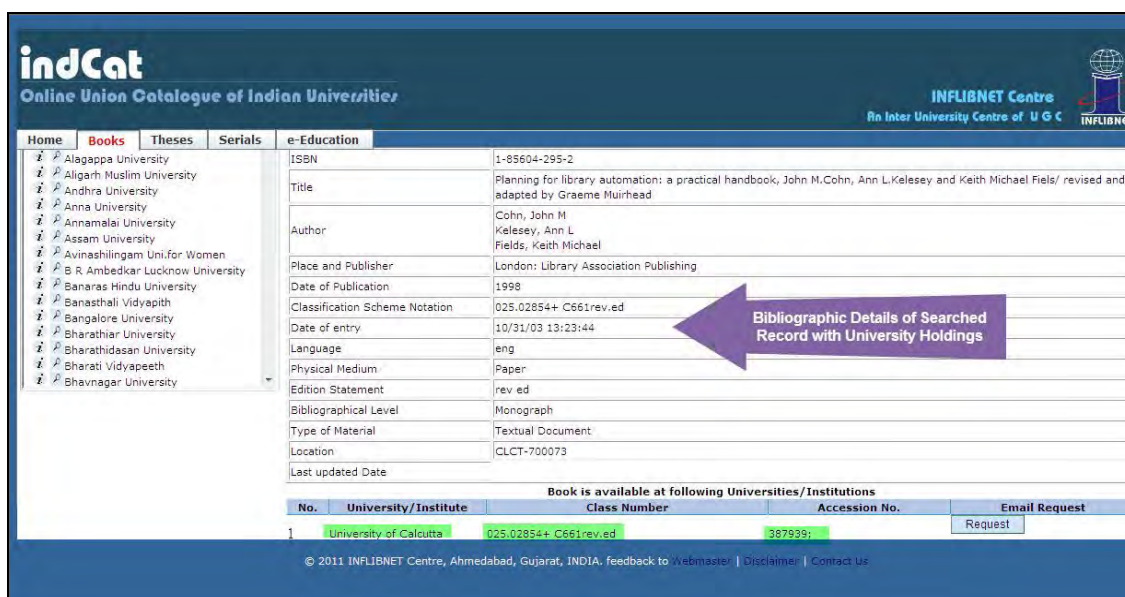


**Fig. 3: Bibliographic Details of Searched Records**

### 7.2.1.1.2. Functions and Features of IndCat

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

User can restrict their search to the records available within their own university on different search parameters, like Title, Subject, Author, Place, Publisher, etc.

**State wise Search:** User can search the book database within a State by Title, Author, ISBN etc.; and

**Advanced search:** Advanced Search facilitates use of Boolean operators, i.e. using AND, OR, NOT operators with different search parameters i.e. Title, Author, Corporate Body, Place & Publisher, Year, Subject, Note, ISBN.

## 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 copy-catalogue 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 holdings 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 North-eastern universities.

### 7.2.1.1.3. Bibliographical Records for Books added during Year 2011-2012

The Centre has received updated data from thirteen universities in different format as per the details given in Table-2 below.

| Sr. No. | University Name | Total Received Records | Updated Records | Data Format/ Software |
|---|---|---|---|---|
| 1 | Guru Ghasidas University, Bilaspur | 46,326 | 23,992 | Soul 1.0 |
| 2 | Mohanlal Sukhadia University, Udaipur | 1,06,964 | 41,312 | Soul 2.0 |
| 3 | Bharathidasan University, Tiruchirappalli | 52,775 | 31,594 | MS-Excel |
| 4 | Bhavnagar University, Bhavnagar | 44,696 | 44,696 | Soul 2.0 |
| 5 | Swami Ramanand Teerth Marathwada University, Nanded | 33,055 | 20,557 | Soul 1.0 |
| 6 | North Bengal University, Darjeeling | 1,17,363 | 44,585 | Soul 2.0 |
| 7 | Assam University, Silchar | 32,668 | 32,668 | Soul 1.0 |

| 8 | Veer Narmad South Gujarat University, Surat | 1,88,053 | 8,002 | Soul 2.0 |
|---|---|---|---|---|
| 9 | Sant Gadge Baba Amravati University, Amravati | 71,862 | 44,565 | Soul 2.0 |
| 10 | Hemchandraacharya North Gujarat University, Patan | 55,201 | 31,016 | Soul 2.0 |
| 11 | Manipur University, Imphal | 71,552 | 19,552 | Soul 1.0 |
| 12 | S.P.University, Vallabh Vidhyanagar | 2,24,673 | 80,201 | Soul 2.0 |
| 13 | Chaudhary Charan Singh University, Meerut | 70,387 | 9,414 | Soul 1.0 |
| | **Total Records** | **11,15,575** | **4,32,154** | |

**Table 2: Updated Bibliographic Records Received from 13 Universities**

During the period under report, the Centre has merged bibliographic records of 21 universities in IndCat as per the details given in Table 3 with all bibliographical details after the process of conversion of data from different formats to one common format i.e. CCF and MARC 21 as well as after correcting typographical errors, duplicate checking within a university and matched records checking.

| Sr. No. | University Name | Received Records | *Duplicate Records | #Matched Records | + Merged to IndCat | Data Format/ Software |
|---|---|---|---|---|---|---|
| 1 | BLDE University, Bijapur | 12,301 | 5,673 | 23 | 6,591 | MS-Excel |
| 2 | C S M Medical University, Lucknow | 366 | 0 | 0 | 366 | MS-Excel |
| 3 | Doon University, Dehradun | 3,707 | 1,461 | 14 | 2,237 | MS-Excel |
| 4 | Indian Institute of Technology, Mandi | 8,154 | 6,666 | 69 | 1,300 | MS-Excel |
| 5 | National Inst. of Technical Teachers Training & Research (NITTTR), Chandigarh | 23,900 | 2,135 | 3,550 | 18,140 | MS-Excel |
| 6 | Bhavnagar University, Bhavnagar | 45,021 | 8,407 | 2,162 | 34,452 | Soul 2.0 (MARC ISO) |
| 7 | Central Institute of Higher Tibetan Studies, Varanasi | 25,056 | 53 | 337 | 24,666 | CCF ISO |
| 8 | Jawaharlal Nehru University, New Delhi | 1,61,205 | 10,149 | 34,410 | 1,16,646 | VTLS (MARC ISO) |
| 9 | Maharaja Sayajirao University of Baroda, Baroda | 2,93,155 | 19,620 | 35,631 | 2,37,904 | Soul 1.0 (CCF ISO) |
| 10 | Deendayal Upadhyay Gorakhpur Univ., Gorakhpur | 15,820 | 680 | 140 | 15,000 | CDS/ISIS Backup |
| 11 | Indian Institute of Technology, Ropar | 4,264 | 133 | 86 | 4,045 | ISO (not in CCF) |
| 12 | Baba Ghulam Shah Badshah Univ, Rajouri | 6,555 | 36 | 155 | 6,364 | Soul 1.0 Backup |
| 13 | Ahmedabad University, Ahmedabad | 22,336 | 4,042 | 127 | 18,167 | Soul 1.0 Backup and MS-Excel |
| 14 | Chaudhary Charan Singh University, Meerut | 60,973 | 2,199 | 37 | 58,737 | Soul 1.0 (CCF ISO) |
| 15 | Veer Narmad South Gujarat University, Surat (Updated Data) | 1,55,778 | 19,384 | 8,098 | 1,28,296 | Soul 2.0 (MARC ISO) |
| 16 | Andhra Pradesh University of Law, Visakhapatnam | 1,604 | 37 | 7 | 1,560 | Koha (MARC ISO) |

| 17 | National University of Advanced Legal Studies (NUALS), Kochi | 5,749 | 106 | 307 | 5,336 | Koha (MARC ISO) |
|----|---|---|---|---|---|---|
| 18 | Krishna Kanta Handiqui State Open University, Guwahati | 9,070 | 162 | 256 | 8,652 | Soul 2.0 (MARC ISO) |
| 19 | Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA), Bangalore | 7,538 | 84 | 44 | 7,410 | Koha (MARC ISO) |
| 20 | The WB National University of Juridical Sciences, Kolkata | 11,024 | 320 | 1,456 | 9,248 | Libsys (MARC ISO) |
| 21 | Periyar University, Salem | 25,579 | 1,195 | 3,550 | 20,834 | MARC ISO |
|  | **Total Records** | **8,99,155** | **82,542** | **90,459** | **7,25,951** |  |

**\*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 3: Details of Merged Bibliographic Records in IndCat using UCMS Software**

A decision was taken to widen the scope of union databases to cover all universities and other institutions. As such a letter was sent to 415 universities including institutions of higher education that are not covered in the purview of UGC requesting them to contribute their bibliographic records. In response, 20 universities have sent their data in different formats. These records are being merged in the union catalogue.

Table-4, lists defaulter universities i.e. universities who were given funds for library automation but did not contribute their bibliographic records as per the terms of MoU signed by them with INFLIBNET Centre.

| Sr.No. | University Name |
|---|---|
| 1 | Awadhesh Pratap Singh University, Rewa (MP) |
| 2 | Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarnagar (Bihar) |
| 3 | Barkatullah Vishwavidyalaya, Bhopal (MP) |
| 4 | Berhampur University, Berhampur (Orissa) |
| 5 | Birla Institute of Technology, Ranchi (Jharkhand) |
| 6 | Dr. Harisingh Gour Vishwavidyalaya, Sagar (MP) |
| 7 | Dr.Ram Manohar Lohia Awadh, Faizabad (UP) |
| 8 | H N B Garhwal University, Srinagar (Uttarkhand) |
| 9 | Jawaharlal Nehru Technological University, Hyderabad (AP) |
| 10 | Maharshi Dayanand University, Rohtak (Haryana) |
| 11 | Mahatma Gandhi Kashi Vidyapeeth, Varanasi (UP) |
| 12 | National Law School of India University, Bangalore (Karanataka) |
| 13 | Patna University, Patna (Bihar) |
| 14 | Rajasthan University, Jaipur (Rajasthan) |
| 15 | Rajasthan Vidyapeeth, Udaipur (Rajasthan) |
| 16 | Sri Chandrasekharendra Saraswati Vishwavidyalaya, Kanchipuram (Tamilnadu) |
| 17 | Sri Lal Bahadur Shastri Rashtriya Sanskrit Vidyalaya, New Delhi |

| 18 | Tripura University, Agartala (Tripura) |
| 19 | University of Lucknow, Lucknow (UP) |
| 20 | Utkal University, Bhubaneswar (Orissa) |
| 21 | Vikram University, Ujjain (MP) |

**Table 4: Defaulter Universities that did not Contributed their Bibliographic Records to IndCat**

Table-5 given below provides no. of unique and duplicate records (holding) added to the Union Database of Books during in year under report.

| Sr. No. | Details | Before April 2011 | From April 2011 to March 2012 | No. of Records added During the year 2011-2012 |
|---|---|---|---|---|
| 1 | Unique Records | 62,39,174 | 70,03,418 | 7,64,244 |
| 2 | Holding Records | 66,91,426 | 75,59,337 | 8,67,911 |

**Table 5: Bibliographic Records Authenticated and Merged in Union Database (IndCat)**

## 7.2.1.1.4. 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 124 lakh records in 2012 as depicted in Figure 4 given below. List of universities and number of records contributed by them are listed in Appendix VI.



**Fig. 4: Growth of Union Catalogue of Books**

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

The Centre has developed an application software called "**Online Copy-Catalogue System**" (OCS) to promote co-operative cataloguing and avoid duplication of efforts. The interfaced 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/indcat/includes/UserGuide_OCS.pdf

## 7.2.1.1.6. Major Achievements during Financial Year 2011-12

- Bibliographic data of books for 21 universities was merge after editing them through UCMS;

- Updated bibliographic data was received from thirteen universities in second & third phase;

- Follow-up communications were sent to universities that have not contributed their data to INFLIBNET Centre as well as to all the university for updated records;

- During IX plan period, 33 universities that have not received the non-recurring and recurring grant for library automation activities were requested to sign an MoU with INFLIBNET Centre and apply for grant for library automation. The Centre received responses from 24 universities and UGC sanctioned the grant to these 24 Universities on recommendation of the INFLIBNET Centre and a committee set-up for this purpose.

- A decision was taken to widen the scope of union databases to cover all universities. As such a letter was sent to 415 Universities including institutions of higher education that are not covered in the purview of UGC requesting them to contribute their bibliographic records. In response, 20 universities sent their data in different data format/software i.e. VTLS, Libsys, Koha, Soul 2.0, MS-Excel, Soul 1.0 etc. Bibliographic data from 16 Universities have already been converted, checked and uploaded in INFLIBNET`s Union Catalogue (IndCat).

- Features and functionalities of UCMS were further enhanced. Significant improvement was made in the process of merging of bibliographic data into union database; and

## 7.2.1.2. Union Catalogue of Serials

*Shri Dinesh Ranjan Pradhan, STO - I (LS)*
*Ms. Roma Shahdadpuri, Project Officer (LS)*

Two separate union databases on serials, namely Serials Holdings and Current Serials, are being maintained by the Centre. While "Serials Holdings" provides data on library holdings, i.e. back files of journals, whereas, the "Current Serials" provides titles of the serials that are: i) currently subscribed by the participating universities in print and electronic formats; ii)  Journals subscribed under the UGC-Infonet Digital Library Consortium in electronic format; and  iii)  serials available in open access mode.

### 7.2.1.2.1. Serials Holdings

The Serials Holdings includes bibliographic information of serials (including journals, periodicals, annuals and serials) available in more than 210 universities / institute libraries along with its holdings information (includes available and missing volumes of the journals) in participating libraries. The holdings database has over 16,842 unique titles with 57,523 holdings information for 210 universities. Each bibliographic records for a serials contains  title, publisher, frequency, year of publication and subject headings along with holdings details and names of the universities. After the launch of UGC-Infonet Digital Library Consortium that provides access to current as well as back volumes of a large number of journals in the electronic format, most of the university libraries have stopped maintaining the holding databases of their serials.

### 7.2.1.2.2. Current Serials

The Union Database of Current Serials (including journals, periodicals, annuals and serials) consists of 35,271 (12738 current & 22533 e-journal) bibliographic records subscribed by 213 university / institute libraries that include serials currently subscribed by the participating universities in print and electronic formats.

### 7.2.1.3. Union Catalogue of Theses

*Shri Rajesh Chandrakar, Scientist B (LS)*
*Shri Imran Mansuri, Project officer (LS)*

The Union Catalogue of Theses consists of bibliographic records of doctoral theses submitted to the universities in India.  The database contains 2,44,927 unique bibliographic records of the theses awarded by 270 Indian universities / institutions   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.

The compilation of Union Catalogue of Theses commenced in 1995 with 52,000 records from 82 universities. The database has grown to 2,44,927 records as on March 2012 from 270 universities over a period of 18 years.

The Centre receives a copy of notification on award of Ph.D. thesis from more than 81 universities. Table 6 and Figure 5 depict growth of theses database from 1995 to March 2012.

| 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 | 2,38,475 |
| 2011 | 245 | 2,37,393 |
| 2012 | 270 | 2,44,927 |

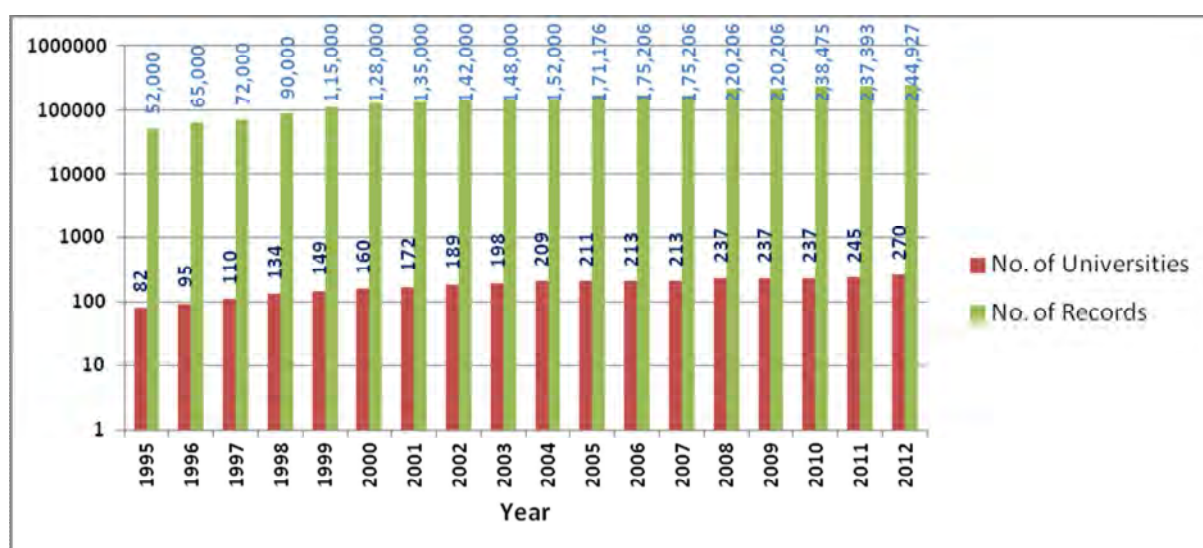**Table 6: Growth in Number of Records in Theses Database: 1995 – 2012**



**Fig. 5: Year-wise Growth of Theses Database**

Theses database can be searched through IndCat interface by title, researcher, research supervisor, university, department, year of submission, subject terms, etc. Bibliographic records of the 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 given in the Appendix VI.

### 7.2.1.4. Expert Database

*Shri Kannan P, Scientist B (LS)*
*Shri Abhishek Kumar, Scientist B (CS)*
*Shri Abhijeet Tiwari, Project Assistant (LS)*
*Shri Swyamprakash Rajput, Project Assistant (CS)*

Expert Database is a database of profiles of scientists / researchers and other faculty members working at leading R & D organization and other academic institutions involved in teaching and research in India. It provides important information about expert's background, contact address, skills and accomplishments.

The database host academic profiles of 36,500 experts from 1519 nation's leading institutions. Attempt is being made to provide access to relevant and accurate information collected from various sources. Web-based interface were built to facilitate search and update profiles of experts listed in the database. The Expert Database is not confined to publishing static profile(s) of experts, the experts can take advantage of any "value – added" services such as link to books and articles published on the personal website.

Further, every expert whose profile is available in the database, has been provided login ID and password with the persistent URL for future updating of their profiles. The databases can be searched on parameters such as name, designation, institution, subject, specialization, state, etc. Expert database is committed to excellence and value for experts as well as users.

### 7.2.1.4.1. Aims and objectives

- ⏵ Quickly and conveniently provide information about experts to peers, prospective collaborators and funding & policy making agencies in the country;
- ⏵ Establish communication directly with the experts who possess the expertise needed by users;
- ⏵ To promote and support research of individual and institution in India and stay informed about the constantly changing world of research; and
- ⏵ To create information exchanges and networking opportunities among scientists.

### 7.2.1.4.2. Major Activities Performed on the Expert Database

The following major activities were performed on the Expert Database during the period under report:

### i) New interface was designed using technologies like

- ⏵ HTML and CSS for presentation;
- ⏵ The Document Object Model (DOM) for dynamic display of and interaction with data;

- ⏩ The XML Http Request object for asynchronous communication;
- ⏩ HTML5 for validation of the text box; and
- ⏩ JavaScript to bring these technologies together.

## ii) The new interface incorporated the following features

- ⏩ Auto suggestion in the search interface and voice search;
- ⏩ Advanced tool tip display;
- ⏩ Asynchronous validation in the data entry field;
- ⏩ Wider variety of controls e.g. sliders, date pickers, tabs;
- ⏩ Reduced load on server resources as processing is distributed over server and client; and
- ⏩ Reduction in network traffic due to more intelligent client and selective data request.

## iii) Verification and Updating of Expert Profile

- ⏩ 219 new profiles were added;
- ⏩ 745 Depatments in univeristies and other institutions were sent letters for contributing their profile in the expert database;
- ⏩ 35 updated profiles were received from the subject experts whose profiles were already available into the database  and were updated into the database; and
- ⏩ More than 16,590 profiles from 2603 departments of 858 institutions were verified and updated through the website of respective institutions.

## 7.2.1.5. Research Projects Database

*Shri Rajesh Chandrakar, Scientist B (LS)*
*Shri Mohit Kumar, STA (CS)*
*Shri Imran Mansuri, Project Officer (LS)*

The Research Project Database provides details of completed and ongoing projects carried out by faculty members working in universities and institutions across the country. During the period under report, the number of records in the database has increased to 13,810 from 13,701.These research projects are funded by various funding agencies such as UGC, CSIR, ICAR, ICMR, DST and DBT. The majority of records of project are for minor and major research projects funded by the UGC. The Centre gets project details along with the project reports in print and digital formats from the project investigators of MRP funded by the UGC regularly. The softcopy and print copy of the project reports are available at the INFLIBNET Centre for walk-in users. Project Investigators of the UGC funded major and minor projects were requested through letters and e-mails to submit the softcopy and print copy of their project reports. Project Investigators, whose project reports were received, are acknowledged and their project details were added into the database available at http://www.inflibnet.ac.in/researchproject/).

## 7.3. Software R&D Group

### 7.3.1. SOUL 2.0 (http://www.inflibnet.ac.in/soul/)

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Divyakant Vaghela, Scientist B (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Dinesh Rayka, 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 new features were added to SOUL 2.0 including new WebOPAC, provision for circulation of loose issues as well as several minor enhancements in reporting and other functionalities. New updates of the software are made available through the SOUL 2.0 website at no additional cost to existing users. Presently software has been supplied to over 2,577 institutions across the country.
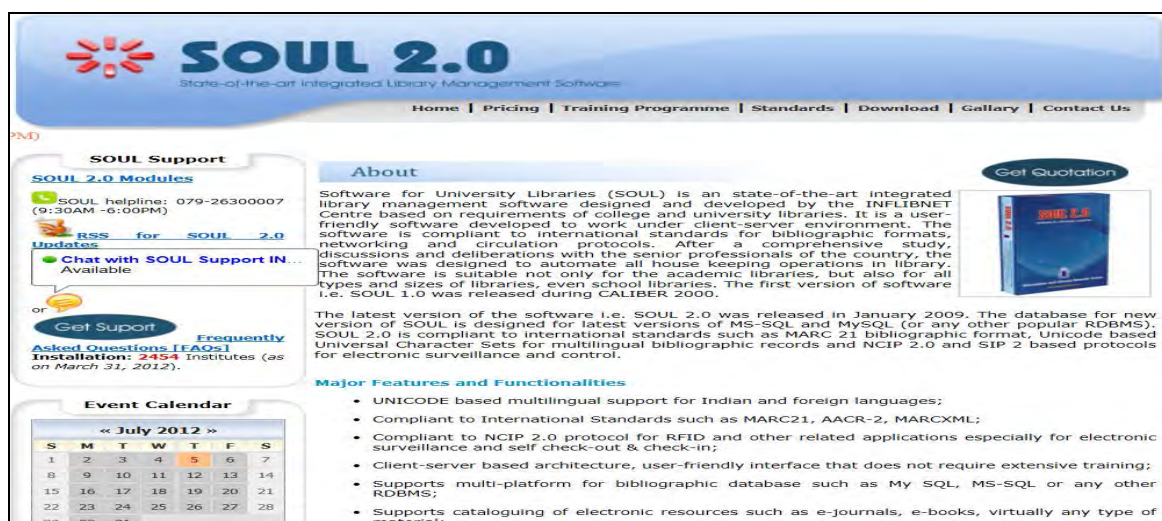


**Fig. 6: Website for SOUL 2.0**

A separate website is maintained for the SOUL 2.0 as shown in Figure 6. The web site provides detailed information about SOUL 2.0.

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

### 7.3.1.1. Customization of SOUL 2.0, Data Conversion and Transfer

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Divyakant Vaghela, Scientist B (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Mayur Gohel, Project Associate (SOUL Support)*
*Ms. Seema Chavda, Project Assistant (LS)*

With release of SOUL 2.0, Centre has also introduced scheme for customization of the software on payment basis as per the requirement of libraries. Under this scheme, SOUL 2.0 can be tailored as per requirement of specific libraries. Moreover, client's existing data (in any format) is converted to SOUL 2.0 compatible-format on payment basis. During the year under report, bibliographic data for over 50 institutions (+25 institutions in 2011-12) available in different formats i.e. MS SQL, MS Excel, MS Access, etc., was converted into SOUL 2.0 compatible format. The task of conversion of very large database of Banaras Hindu University, Banaras from NewGenLib to SOUL 2.0 was also accomplished during the year under report. The total volume of data processed and converted is over 9 lakh bibliographic records during the year. Besides, several customisation requests were also handled.

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

### 7.3.1.2. SOUL-Web Edition

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Divyakant Vaghela, Scientist B (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Dinesh Rayka, Project Officer (CS)*

Based on users need and current trends, development of web-based version of SOUL have been initiated. The web edition of SOUL would be platform independent that would run on any operating system (i.e., Linux, Windows). Moreover, this software can be hosted on cloud platform. SOUL (Web edition) is based on REST (Representational State Transfer) Protocol which relies on a stateless, client-server, cacheable communications protocol - and in virtually all cases, the HTTP protocol is used. Currently Administration and Circulation Modules of SOUL web edition is under development.

**Technologies:** Java, JSP, MySQL, REST protocol (JAX-RS), apache tomcat

### 7.3.1.3. SOUL Query Management System (SQMS): Web-based Interface for SOUL 2.0 Customer Support and Integration with SOUL Sales

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Divyakant Vaghela, Scientist B (CS)*
*Shri Vijay Shrimali, Technical Assistant (CS), SOUL Support*
*Ms. Nabila Shaikh, SOUL Support*
*Shri Kamlesh Vegad, SOUL Support*

SOUL Query Management System (SQMS) is designed to handle and manage user's query on SOUL software. The system is used for extending online support for SOUL software and for handling queries of SOUL users. SQMS consists of two modules i.e. System User and SOUL Users.

System User module is designed for use of administrator to monitor and manage the queries fed to SQMS. System User module provides system user's list, queries received list, query details, query status, query track, etc. SOUL User module is designed for use by the end users for logging-in their queries. All SOUL users are end-user of this system. Users can perform operations like feed queries, check status of their queries, add details of contact person from the institute including their institute details, etc.

Although SQMS was under testing since last year, it has been decided to integrate other operations being performed, i.e. generation of quotation, order processing, payment settlement, dispatch tracking and various reports as suggested by SOUL Sales Support Unit. The system is now fully functional and ready for launching after fine-tuning.

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

### 7.3.2. Software Application to Fetch records from Shodhganga to IndCat Theses Database

*Shri Abhishek Kumar, Scientist B (CS)*
*Shri Swyamprakash Rajput, Project Assistant (CS)*

The INFLIBNET Centre is maintaining two databases of theses, while IndCat contains bibliographical records of theses, Shodhganga contains full-text of theses from selected universities. The Centre has developed an application to fetch bibliographical records from Shodhganga to IndCat database so that it is searchable through IndCat search interface. The records in theses database also facilitates navigation from bibliographic records available in IndCat to full-text available in Shodhganga.
**Technologies:** PHP, MS SQL, Postgres

### 7.3.3. Union Catalogue Management System with Lucene (For MARC records)

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Dinesh Rayka, Project Officer (CS)*

The UCMS is windows-based application, developed in-house by the Centre. The UCMS is used for authentication and re-formatting of bibliographic records received from universities as well as for merging new records into the existing union catalogue. The UCMS was developed in VB.net as a front-end and MS-SQL as a back-end. Major features of the software are as follows:

⯈ User friendly GUI;
⯈ Duplicate checking of bibliographic records;

- ⏭ Import -export facility of ISO file; and
- ⏭ Update or editing of bibliographic records can be handled either for individual records or globally (i.e. in full database).

In attempt to handle MARC based record, the group has tried to explore possibilities of developing new UCMS for MARC based records. The new interface facilitates search using indexed data. The interface facilitates editing and updation of XML files as well as find and replace contents in multiple files. The new interface also facilitates import and export of updated data from the IndCat for integration into local library software. Technical Staff responsible for this activity and also get search facility for imported data, they can also check status of imported data i.e. duplicate, merged, etc.

**Technologies:** Java, JSP, Apache tomcat, Apache Lucene, Apache Solr, MS SQL

### 7.3.4. IndCat (Indian Catalogue) using SOLR

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Dinesh Rayka, Project Officer (CS)*

IndCat is web-based search interface for the union database of books, serials, and theses. As a proof of concept to handle MARC21 based record, attempt was made to develop a new IndCat interface using SOLR, an open source Internet technology through which data from any format (i.e., XML, PDF, HTML...) can be indexed. This also provides features like facets, hit highlighting, free text search in very fast and efficient manner compared to RDBMS based back-end. It displays the search result using indexed data. User can search bibliographic information from different Indian Universities and download the records in MARC and MARCXML standards.

**Technologies:** Java Script, Java, JSP, Apache tomcat, Apache Solr, HTML, XML

### 7.4. Human Resource Development & Consultancy

*Shri H G Hosamani, Scientist C (LS)*
*Mrs. Hema Cholin, STA – I (LS)*
*All Technical Staff Members*

Imparting training to manpower working in the university and college libraries in the use of ICT is an important objective of the Centre and has been given due priority. 506 training programmes, workshops and seminars focusing on the library automation, networking, e-resource awareness, institutional repositories, etc. have so far been conducted benefiting 39,531 participants. INFLIBNET Regional Training Programme for Library Automation (IRTPLA) and User Awareness Training Programme 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 in India are being organized annually / bi-annually as part of the human resource development activities. The Centre has also conducted 102 Training Programmes on SOUL Installation and Operations for Libraries so far. A brief report on these training programmes is given below:

## 7.4.1. Training Programmes

The INFLIBNET provides five-day Orientation Training Programme specially designed for imparting training to new users on installation and implementation of the SOUL software in libraries. 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 participants are given facilities of a well-equipped computer laboratory and sessions are conducted 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 institution is invited to join this training programme, one each with computer and library science background. However, on special request from users, the Centre organised four special SOUL 2.0 Training Programmes at INFLIBNET Centre, Ahmedabad wherein two persons from Grant-in-Aid colleges under Commissionerate of Higher Education, Govt. of Gujarat were allowed to participants. All the four programmes were inaugurated by Dr. Jagdish Arora, Director, INFLIBNET Centre. Dr. N K Fitter, Joint Director and Mr. Hasmukh Patel, OSD-IT, Comissionerate of Higher Education, Government of Gujarat were special invitees for the programmes. The programmes were coordinated by Shri H G Hosamani, Scientist C (LS), INFLIBNET Centre, Ahmedabad. After the training programme, the software was supplied to 134 Grant-in-Aid colleges of Gujarat.

As on March 31, 2012, 102 such training programmes were organized at the Centre so far. During the period under report, 12 training programmes were organized to impart training to 294 participants from different institutions as shown in Table 7 given below.

| Sr. No. | Name of Training Programme | Period | No. of Participants |
|---------|---------------------------|--------|---------------------|
| 1 | 90th SOUL Training Programme | 23rd to 27th May, 2011 | 22 |
| 2 | 91st SOUL Training Programme | 30th May to 03rd June, 2011 | 20 |
| 3 | 92nd SOUL Training Programm | 06th to 10th June, 2011 | 26 |
| 4 | 93rd SOUL Training Programme | 27th June to 01st July, 2011 | 24 |
| 5 | 94th SOUL Training Programme | 04th to 08th July, 2011 | 30 |
| 6 | 95th SOUL Training Programme | 18th to 22nd July, 2011 | 20 |

| 7 | 96th SOUL Training Programme | 08th to 12th August, 2011 | 25 |
|---|---|---|---|
| 8 | 97th SOUL Training Programme | 19th to 23rd September, 2011 | 29 |
| 9 | 98th SOUL Training Programme | 14th to 18th November, 2011 | 19 |
| 10 | 99th SOUL Training Programme | 19th to 23rd December, 2011 | 19 |
| 11 | 100th SOUL Training Programme | 30th January to 03rd February, 2012 | 32 |
| 12 | 101st SOUL Training Programme | 12th to 16th February, 2012 | 28 |
| | **Total** | | **294** |

**Table 7: SOUL Training Programmes Organized at the INFLIBNET Centre during 2011-12**

As depicted in Figure 7, the Centre has sold 150 copies of SOUL 2.0 and 135 copies of SOUL 2.0 were given free-of-cost to the existing users of the universities and institutions across the country during the financial year 2011-12. It includes 116 copies of Limited Edition and 34 copies of Full Edition of SOUL Software. The SOUL 1.0 users were provided the latest version of SOUL 2.0 free of cost on request. So far 47 copies of limited version and 88 copies of full edition of SOUL 2.0 have been given to the users of SOUL 1.0.
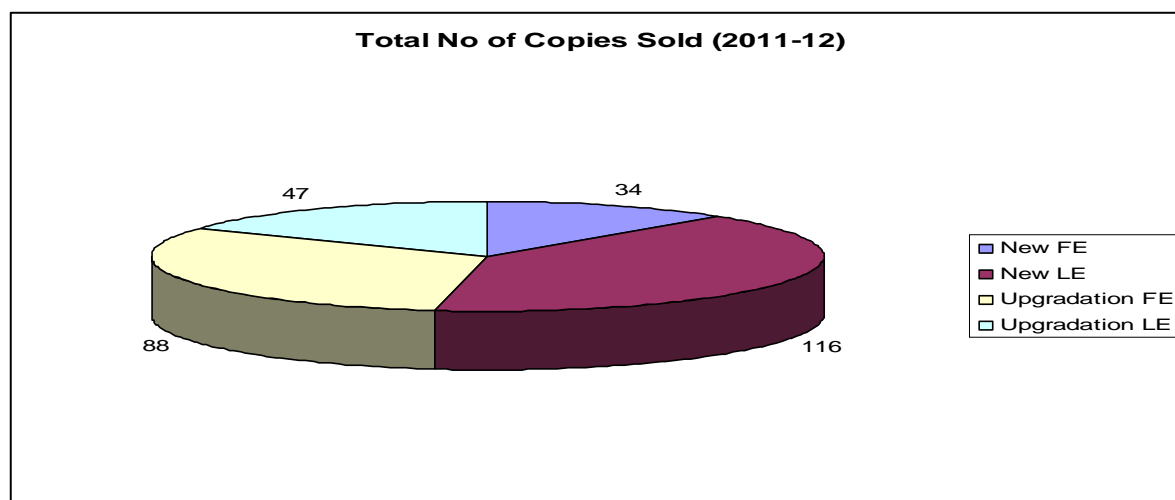


**Fig. 7: SOUL 2.0 Users Added during 2011-12**

A special mention is being made for the 100th SOUL 2.0 five-day Training Programme organised from 30th January to 3rd February, 2012 at INFLIBNET Centre, Ahmedabad, Gujarat. The programme was inaugurated by Dr. Parimal Trivedi, Vice Chancellor, Gujarat University, Ahmedabad. Prof Trivedi, in his inaugural address, elaborated on the development of the INFLIBNET Centre and its role in academics. He touched upon the massive technological changes that the Centre has undergone and its positive impact on the higher education community. Further, he emphasized that the libraries should play an active role in the automation process and help users to get required information expeditiously.

**Fig. 8: Dr. Parimal Trivedi, Vice Chancellor, Gujarat University Lighting the Traditional Lamp during Inauguration of 100ᵗʰ Soul 2.0 Training Programms along with Dr. Jagdish Arora, Director, Shri Manoj Kumar K, Scientist D(CS), Shri Yatrik Patel, Scientist D(CS) and Shri H G Hosamani, Scientist C(LS), INFLIBNET Centre**

Dr. Jagdish Arora, Director, INFLIBNET Centre presented an overview of INFLIBNET Centre its activities, services and highlighted its recent initiatives. Shri Manoj Kumar K, Scientist D (CS), welcomed the guests and participants to the inaugural session. Sh Yatrik Patel Scientist-D (CS) and technical coordinator highlighted the course content of SOUL 2.0 training programme. Sh H G Hosamani, Scientist- C (LS) and coordinator of the training programme extended a warm the vote thanks to all invitees, participants, dignitaries, and authorities of Gujarat University.

Dr. Parimal Trivedi, launched the "new website of Soul 2.0 (http://www.inflibnet.ac.in/soul) and mobile website (http://www.inflibnet.ac.in/mobile.html)" developed by INFLIBNET Centre during the inaugurate programme.

140 library professionals were invited for the inaugural session including 6 regional SOUL Coordinators and 32 participants from different parts of the country to attend the five days SOUL 2.0 training programme.

### 7.4.2. Specialized Training Programme

### 7.4.2.1. Developing Digital Library using Dspace, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra, 20ᵗʰ– 26ᵗʰ August 2011

The Department of Library and Information Science, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra, organized seven-day National Workshop on 'Developing Digital Library using Dspace' in collaboration with INFLIBNET Centre, Ahmedabad, Gujarat, from 20ᵗʰ-26ᵗʰ August, 2011, at Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The Workshop was inaugurated by Dr P S G Kumar, Former Head of the Department and Former University Librarian, RTM Nagpur University. 43 participants took the benefit of training imparted through the Workshop. Dr. Nanaji Shewale, Librarian, Gokhale Institute of Political and Economics, Pune, Dr. H. S. Waydande, Assistant Librarian, IIT Bombay and Dr. N. Natrajan, Scientist F, NISCAIR, Delhi, were invited as resource persons and Shri

Manoj Kumar K, Scientist D (CS), Shri Swapnil Patel, Scientist B (CS), and Shri P Kannan, Scientist B (LS) served as the resource persons from INFLIBNET Centre, Ahmedabad. Dr. Shalini Lihitkar, Head, Department of LIS, co-ordinated the Workshop on behalf of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra.

### 7.4.2.2. National Workshop on Creation and Management of Digital Collections, INFLIBNET Centre, Ahmedabad, 13th- 17th February, 2012

The INFLIBNET Centre, Ahmedabad organized five-day National Workshop on "Creation and Management of Digital Collections" from 13th to 17th February, 2012 at INFLIBNET Centre, Ahmedabad. The workshop was inaugurated by Dr. Jagdish Arora, Director, INFLIBNET Centre, and aimed at equipping the participants with skills for developing and managing their own digital collections with special reference to managing information sources in digital environment, building institutional repository, use of social media, management of e-resources, etc. Dr. Anil Kumar, Librarian, IIM, Ahmedabad, Dr. Shailesh Yagnik, Librarian, MICA, Ahmedabad, Dr. Yogendra Singh, Librarian, IIT Roorkee, Dr. T S Kumbar, Librarian, IIT Gandhinagar, Shri Manoj Kumar K, Scientist D (CS), Sh Ashok Kumar Rai, Scientist-D (CS) and Sh Yatrik Patel, Scientist-D (CS) were the resource persons for the Workshop. Shri P Kannan, Scientist B (LS), Shri Swapnil Patel, Scientist B (CS), Shri Vijay Shrimali, STA (CS) and Shri Imran Mansuri, Project Officer (LS) were resource persons in the practical session. Shri Yatrik Patel, Scientist D (CS) and Shri H G Hosamani, Scientist C (LS) co-ordinated the workshop. 20 participants from different parts of the country attended the workshop.

### 7.4.3. Onsite /In-house Training Programme on SOUL 2.0

### 7.4.3.1. Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, 19th -21st April, 2011

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra organized three-day In-house Training Programme on SOUL 2.0 Installation and Operations in collaboration with the INFLIBNET Centre, Ahmedabad from 19th to 21st April 2011 at Dr. Babasaheb Ambedkar Marathwada University Library, Aurangabad. The training programme was inaugurated by Prof. Vijay Pandharipande, Vice Chancellor, Dr. Babasaheb Ambedkar Marathwada University. 25 library staff from the University participated in the Programme. Shri H.G. Hosamani, Scientist B (LS), Shri Vijay Shrimali, Project Assistant (CS) and Shri Amrutesh Agrawal, Sr. Technical Assistant, SOUL Regional Centre, Maharashtra & Goa Region, served as resource persons from INFLIBNET Centre. Dr. Pralhad Lulekar, Professor, Department of Marathi, Dr. Babasaheb Ambedkar Marathwada University distributed the certificates of participation to the participants during the concluding session. Dr. Dharmraj Veer, In-charge University Librarian, co-ordinated the training programme on behalf of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

### 7.4.3.2. Moolji Jaitha College, Jalgaon, Maharashtra, 25th -27th May, 2011

The Moolji Jaitha College, Jalgaon, organised a 3-day In-house Training Programme in collaboration with the INFLIBNET Centre from 25th to 27th May 2011. Dr. Subramanya Rao, Principal, KCE Society's

College of Education inaugurated the programme. 26 library professionals of the college benefited from the training progarmme. Smt. Hema Cholin, STA (LS), Shri Vijay Shrimali, SOUL Technical Assistant (CS) and Shri Imran Mansoori, Project Officer (LS) were resource persons from the INFLIBNET Centre. Shri V S Kanchi, Librarian, Moolji Jaitha College, Jalgaon co-ordinated the programme on behalf of Moolji Jaitha College.

### 7.4.3.3. Sheth P T Mahila Arts & Home Science College, Surat, Gujarat, 14th October- 16th October 2011

The Sheth P T Mahila Arts & Home Science College, Surat, organized three-day In-house Training Programme on SOUL 2.0 at Sheth P T Mahila Arts & Home Science College Library, Surat, from 14th to 16th October 2011. The programme was inaugurated by Dr. Bhavana Desai, Principal, Sheth P T Mahila Arts & Home Science College, Surat. 6 staff members participated in the training programme who were trained on different modules of SOUL software including its configuration and operation. Presentations on advanced features of the software and practical sessions were conducted by the resource persons from INFLIBNET Centre. Ms. Nabila Shaikh, Technical Assistant (CS), served as the resource person from INFLIBNET Centre, Ahmedabad. Dr. Jaya Barevadia, Librarian, Sheth P T Mahila Arts & Home Science College, Surat co-ordinated the programme.

### 7.4.3.4. Assam University, Silchar, Assam, 23rd – 29th July 2011

The Assam University, Rabindra Library, Silchar, Assam, organised five-day In-House Training Programme on SOUL 2.0 at Rabindra Library, Assam University, Central Library, Silchar, Assam, from 23rd to 29th July 2011 in collaboration with INFLIBNET Centre, Ahmedabad, Gujarat. The training programme was inaugurated by the Pro Vice-Chancellor Dr. Gautam Biswas, in presence of Professor G D Sharma PVC (S&T), Dr Madan Singh Rana, University librarian, Prof. Ashok Sen, Department of Physics, Mr. Debabrata Deb, Registrar, Dr. Bibhas Dev, Director, College Development Council, Senior officials of the University and other distinguished guests. 27 library staff members were benefited from this programme. Mr. Divyakant Vaghela, Scientist B (CS) and Mr. Dinesh Rayka, Project Officer (CS) served as resource persons from INFLIBNET Centre, Ahmedabad. The programme was coordinated by Dr. Sumana Chakrabarty Sarmah, Deputy Librarian, on behalf of Assam University.

### 7.4.3.5. Banaras Hindu University, Varanasi, 23rd – 27th January, 2012

The Banaras Hindu University, Varanasi, organized five-day In-house Training Programme on SOUL 2.0 at Banaras Hindu University Library, Varanasi, from 23rd to 27th January, 2012. Dr. A K Srivastav, Librarian, was coordinator of the programme. Shri H G Hosamani, Scientist C (LS) and Shri Divyakant Vaghela, Scientist B (CS), served as the resource persons from INFLIBNET Centre, Ahmedabad. More than 100 staff members of the university participated in the programme.

## 7.4.4. INFLIBNET Regional Training Programme on Library Automation

Three INFLIBNET Regional Training Programme on Library Automation (IRTPLA) were organized by the Centre in collaboration with three different institutions during the period under report. A brief report on IRTPLAs organised during the year is given below:

### 7.4.4.1. Dr. Baba Saheb Ambedkar Marathwada University, Aurangabad, Maharashtra, 25$^{th}$ -29$^{th}$ April, 2011

The Department of Library and Information Science, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, organized five-day INFLIBNET Regional Training Programme on Library Automation, in collaboration with the INFLIBNET Centre, Ahmedabad from 25$^{th}$ to 29$^{th}$ April 2011. The training programme was inaugurated by Prof. Vijay Pandharipande, Vice-Chancellor, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. 49 participants comprising of library & information science professionals from different institutions in Maharashtra participated in the training programme. Prof. A. A. Vaishnav, former Prof. & Head, Department of Library & Information Science and Dr. Neeraj Salunke, Associate Professor, Department of History were invited as expert resource person for the programme. Shri H. G. Hosamani, Scientist C (LS), Shri Mayur Gohel, SOUL Technical Assistant (CS) & Shri Kamlesh Vegad, SOUL Technical Assistant (LS) served as resource persons from INFLIBNET Centre, Ahmedabad. Prof. A. G. Khan, Director, Board of College and University Development was the Chief Guest for the Valedictory Session. Dr. Vaishali Khaparde, Head & Associate Professor, Department of Library & Information Science co-ordinated the programme on behalf of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

### 7.4.4.2. Madras University, Chennai, Tamil Nadu, 28$^{th}$ November – 2$^{nd}$ December, 2011

The Madras University, Chennai, Tamil Nadu, orgarnized five-day INFLIBNET Regional Training Programme on Library Automation in collaboration with INFLIBNET Centre, Ahmedabad from 28$^{th}$ November to 2$^{nd}$ December 2011. The programme was inaugurated by Prof Thirvasagam, Vice Chancellor, Madras University, Chennai. 26 participants from different institutions across South India attended the programme. Presentations were made by the experts on institutional repository, website designing, digital library, networking and library management software-SOUL 2.0. Dr. Krishanmurthy, Associate professor, DRTC, Bangalore (ISI), Dr Ramesha, Associate Professor, Bangalore University, Bangalore, Dr. S. Gopalakrishnan, Anna University, Chennai, Prof Ramesh Babu, Professor, Department of Library Science, University of Madras and Dr S Palani, Retired Associate Professor, DLISc, University Madras, were the experts invited as resource persons for the workshop. Shri H G Hosamani, Scientist C (LS), Shri Saroja Kumar Panda, STA-I (LS) and Shri Kiran Kumar, Regional SOUL Technical Assistant, Andhra Pradesh, were the resource persons from INFLIBNET Centre. Shri Kaliyapermul, Library In-charge coordinated the programme on behalf of the Madras University, Chennai.

### 7.4.4.3. Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, 26$^{th}$-30$^{th}$ March, 2012

The Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu organized five-day INFLIBNET Regional Training Programme in Library Automation (IRTPLA) in collaboration with INFLIBNET Centre,

Ahmedabad from 26<sup>th</sup> to 30<sup>th</sup> March, 2012. Dr. S Manickam, Registrar of the University inaugurated the training programme. 36 participants from different colleges attended the training programme. Dr. M. Surulinathi, Assistant Professor, Department of Library and Information Science, Bharathidasan University, Trichy, Dr. R. S. Rajesh, Associate Professor, Department of Computer Science and Engineering, Dr. A. Thirumagal, Librarian and Dr. P. Balasubramanian, Deputy Librarian, Manonmaniam Sundaranar University were invited as resource persons. Shri P. Kannan, Scientist B (LS), INFLIBNET Centre, Shri T. Venkata Ravi Kiran, and Mohd. Latheef, Regional SOUL Technical Assistant, Andhra Pradesh and Tamil Nadu were the resource persons from INFLIBNET Centre. Dr. A. Thirumagal, Librarian, co-ordinated the programme on behalf of the University.

## 7.4.5. User Awareness Programmes on N-LIST and UGC INFONET Digital Library Consortium

### 7.4.5.1. Govt. College for Women, Gandhi Nagar, Jammu, April 8, 2011

The Government College for Women (GCW), Gandhi Nagar, Jammu in collaboration with the INFLIBNET Centre, Ahmedabad organised one-day User Awareness Programme on N-LIST on 8<sup>th</sup> April 2011. The programme was inaugurated by Shri Jenab Abdul Gani Malik, Hon'ble Minister for Higher Education, Labour and Employment, Govt. of J&K. Ms. Tanveern Jehan, Commissioner/Secretary, Shri H K Sharma, Special Secretary, Dr. Sham Lal Gupta, Director Colleges and Prof. Muqbil Chisti, OSD, Higher Education, Govt. of J&K attended the inaugural session. Shri Shoiabe, Librarian, University of Jammu, 29 principals of degree colleges of Jammu Province, 80 faculty members of the Government College for Women and 125 librarians / IT professionals participated in the programme. Ms. Nalini Kohli, Principal, Government College for Women welcomed the participants and guests. Mr. Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre, Ahmedabad delivered the key-note address. Hon'ble Minister Shri Jenab Abdual Gani Malik, in his inaugural address, appreciated the initiatives taken by the INFLIBNET Centre and for extending e-resources to colleges in the state. Mr. Ashok Kumar Rai made a presentation on N-LIST programme and the e-resources available to the colleges under the programme. He explained about the membership details and the access method to the participants. Ms. Anuradha Seth, Librarian and Coordinator of the programme extended a warm vote of thanks.

### 7.4.5.2. Pt. Ravishankar Shukla University, Raipur, Chhattisgarh, April 28-29, 2011

Pt. Sunderlal Sharma Library, Pt. Ravishankar Shukla University, Raipur organized 2-day User Awareness Programme on EResources under the UGC-INFONET Digital Library Consortium and N-LIST Programme in collaboration with the INFLIBNET Centre, Ahmedabad on 28th to 29th April 2011. The Chief Guest of the programme, Shri K D P Rao, IAS, Commissioner, Higher Education, Govt. of Chhattisgarh inaugurated the programme by lighting the traditional lamp. Dr. Jagdish Arora, Director, INFLIBNET Centre and Shri Manoj Soni, DGM (IT), BSNL, Raipur were the Guest of Honours and Prof. S K Pandey, Vice Chancellor, Pt. Ravishankar Shukla University, Raipur presided over the function. Dr. Mohammed Imtiaz Ahmed, Assistant Librarian, Pt. Ravishankar Shukla University presented a brief about the programme and University's long association with the INFLIBNET Centre. 176 participants consisting of principals, faculty, librarians, research scholars and students of the University and its affiliated colleges

participated in the programme. Dr Jagdish Arora delivered the key note address. In his presentation, he elaborated on activities, services and functions of the INFLIBNET Centre emphasizing on new initiatives taken by the Centre. Shri Manoj Soni delivered a talk on availability of Internet connectivity through NME-ICT programme. Shri K D P Rao, in his inaugural speech, assured full cooperation of the state government to the colleges and universities in the state. Prof S K Pandey, in his presidential address, emphasized on importance of libraries and information centres in research and development. Dr Mohammed Imtiaz Ahmed extended a warm vote of thanks to the invited dignitaries, university authorities and participants. Dr. Suparna Sen Gupta, University Librarian, Pt. Ravishankar Shukla University, Raipur coordinated the programme. Presentations-cum-demonstrations on access to e-resources alongwith hands-on practice were made by Dr Mohammed Imtiaz Ahmed. Representatives of various publishers made presentations on their products and services made accessible to the University under the consortium. Representatives from Wiley / Blackwell, American Chemical Society, SIAM, Project Muse, Institute of Physics, Royal Society of Chemistry, Cambridge University Press, Informatics (for JCCC and Annual Reviews) and Springer made presentations on e-resources offered by them.

### 7.4.5.3. Guru Nanak Dev University, Amritsar, May 6, 2011

Bhai Gurdas Library, Guru Nanak Dev University (GNDU), Amritsar organised one-day User Awareness Programme on E-Resources in collaboration with the INFLIBNET Centre, Ahmedabad on 6th May 2011 at the Conference Hall, GNDU, Amritsar. Dr. A. S. Brar, Vice Chancellor, GNDU, Amritsar was the Chief Guest for the programme. More than 140 participants consisting of faculty members, research scholars and students participated in the programme. Dr. H. S. Chopra, University Librarian, GNDU welcomed the chief guest, faculty members and participants. Dr. Chopra briefed the participants about the User Awareness Programme and the importance of e-resources being made accessible by the INFLIBNET Centre to the universities. Shri Ashok Rai, Scientist D (CS), INFLIBNET Centre delivered a talk on UGC-INFONET Digital Library Consortium, its services and activities. Representatives from publishers participated in the programme and made presentations on e-resources provided to the University under the consortium initiative. Nature Publishing House, Emerald Group, Oxford University Press, Cambridge University Press, Taylor and Francis, Elsevier, Balani Infotech (for Project Muse, ACS & SIAM) and Informatics (for JCCC & Annual Reviews) made presentations on e-resources accessible to the University. Dr. A. K. Thukral, Director Research presided over the Valedictory function. Mr. Surinder Singh Ghuman, Assistant Librarian, GNDU proposed a warm vote of thanks.

### 7.4.5.4. Ayya Nadar Janaki Ammal College, Sivakasi, Tamil Nadu, June 17, 2011

Ayya Nadar Janaki Ammal College (Autonomous), Sivakasi in collaboration with the INFLIBNET Centre, organised one-day User Awareness Programme on Access to E-resources under the N-LIST Programme on 17th June 2011. Shri T Kasirajan, Librarian, Ayya Nadar Janaki Ammal (ANJA) College, Sivakasi was the Coordinator of the programme. 60 colleges covered under 12 (B) and 2 (f) Sections of the UGC Act and 10 self-financed colleges of Virudhunagar district were invited to attend the awareness programme. 150 participants consisting of research scholars and faculty members along with the librarians of the 19 colleges participated in the programme. Shri V. Ayyan Kodiswaran, Member, Managing Committee of

ANJA College inaugurated the User Awareness Programme. Dr. S. Baskaran, Principal, ANJA College presided over the function. Dr. D. Prabhu, Head, Department of Microbiology, ANJA College welcomed the participants. Dr. S. Baskaran, in his presidential address, stressed upon the importance of e-resources for qualitative education system. Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre was the resource person for the programme. Dr. S. Baskaran distributed the certificate of participation to the participants. Shri T. Kasirajan, Librarian, ANJA College and Coordinator of the programme proposed a warm vote of thanks.

### 7.4.5.5. UGC-Academic Staff College, Bharathiar University, Tamil Nadu, August 05, 2011

The UGC-Academic Staff College, Bharathiar University, Coimbatore, Tamil Nadu and INFLIBNET Centre, Ahmedabad jointly organised one day N-LIST Awareness Programme on 5<sup>th</sup> August, 2011. More than 70 participants attended the programme including lecturers and librarians from various colleges affiliated to Bharathiar University. Prof M Jayakumar, Director-In-charge, Academic Staff College, Bharathiar University and Chief Guest, in his speech, elaborated upon advantage of consortia-based access to e-resources as compared to individual colleges subscribing to the same content. Mr P Kannan, Scientist B (LS), as resource person from the INFLIBNET Centre, in his presentation discussed about the procedure to join the N-LIST programme, retrieval of e-resources and getting updates from publisher's website using RSS feed, email notification for table of content, etc. In the afternoon session, Mr Rajendran, Assistant Librarian, Bharathiar University imparted the training to the participants in the process of accessing e-resources and demonstrated various services provided by the INFLIBNET Centre. Prof N Audinarayana, Officer-In-Charge, University Library delivered vote of thanks.

### 7.4.5.6. Assam University, Silchar, Assam, August 23, 2011

One-day N-LIST and E-journal Awareness Programme was organised at Rabindra Library (Central Library) of Assam University, Silchar, in collaboration with INFLIBNET Centre, Ahmedabad on 23 August, 2011. The programme was coordinated by Dr (Mrs) Sumana Chakrabarty Sarmah, Deputy Librarian of Assam University. Mr Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre represented as a resource person and made presentation on various    e-resources available through the N-LIST programme to colleges and its usage. The N-LIST Awareness Programme was organised in first session in the Rabindra Library Seminar Hall. More than 40 participants including, college librarians and principals of affiliated colleges of Assam University attended the programme. The second session on UGC-Infonet e-resources was organised in the University's Auditorium and was attended by the faculty members, research scholars, students and staff of different departments of the University.

### 7.4.5.7. North-Eastern Hill University, Shillong, Meghalaya August 25-26, 2011

A two-day User Awareness Programme on UGC-Infonet Digital Library Consortium and the National Library and Information Services Infrastructure for Scholarly Content (N-LIST) was conducted by the Central Library, North-Eastern Hill University (NEHU), Shillong in collaboration with INFLIBNET Centre, Ahmedabad, from 25 to 26 August, 2011 at the NEHU Guest House Auditorium, NEHU Campus, Shillong.

In the Inaugural Function, Dr I Majaw, University Librarian, NEHU, delivered the welcome address. Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre, Ahmedabad delivered the keynote address highlighting the roles and responsibilities of the INFLIBNET Centre in making e-resources available to universities and colleges in India. Shri W M S Pariat, IAS, Chief Secretary, Government of Meghalaya graced the occasion as the Chief Guest. Prof A N Rai, Vice-Chancellor, NEHU graced the Inaugural Function as the Guest of Honour and expressed happiness that such a User Awareness Programme is being organised and hoped that similar programmes on a smaller scale are regularly organised by the NEHU Central Library for different categories of library users. A total number of 125 participants registered for the programme including, principals, librarians, professors and research scholars. During the technical sessions, Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre made presentations on two major initiatives of the INFLIBNET Centre namely, UGC-Infonet Digital Library Consortium and N-LIST.

The product presentation sessions included demonstrations of e-resources and services by the representatives of seven reputed aggregators and publishing houses, namely, Balani Infotech Pvt. Ltd. (ACS & Project Muse), Cambridge University Press, Springer India Pvt. Ltd., Nature Publishing Group, Global Information Systems Technology (Wiley-Blackwell), Taylor & Francis, and Informatics (India) Pvt. Ltd (for Annual Reviews and JCCC).

In the Valedictory Function, Prof A S Chandel, Chairman, Library Digitisation Project, NEHU was the Chief Guest. He briefly highlighted the need for awareness of electronic and online resources and services in the present digital era. Dr I Majaw, University Librarian, NEHU presented the certificate of participation to the participants. Shri F R Sumer, Deputy Librarian, NEHU proposed a warm vote of thanks as the Organising Secretary of the User Awareness Programme.

## 7.4.5.8. Panjab University, Chandigarh, Punjab, September 22-23, 2011

The N-LIST Awareness Programme was organised for the colleges affiliated to Panjab University in conjunction with the National Seminar on Emerging Trends in Academic Librarianship by A C Joshi Library, Panjab University, Chandigarh in collaboration with INFLIBNET Centre, Ahmadabad on 22-23 September, 2011. The Seminar was attended by about 100 delegates from Chandigarh and Punjab region.

The Seminar was inaugurated by Prof R C Sobti, Vice-Chancellor, Panjab University. Mr Ashok Kumar Rai, Scientist D (CS) from INFLIBNET Centre elaborated on the N-LIST programme for colleges. Dr H K Kaul, Director, DELNET, New Delhi stressed upon the need to bridge the gap between resources available in multiple formats and the user needs through knowledge highways. Dr Jagtar Singh, Professor & Head, Department of Library and Information Science, Punjabi University, Patiala and President of SATKAL Trust gave an overview of the activities of the trust and its future plans. Prof I V Malhan, Professor &  Head, Department of Library and Information Science, Central University of Himachal Pradesh, Dharmshala discussed the future of academic libraries.

Mrs A K Anand, Former University Librarian, Panjab University opined that social sciences and humanities are getting step motherly treatment in e-resources and stressed upon the need to look into this aspect, as lot of research is being done in these areas. Presentations were made by representatives of Elsevier Science on Scopus and Science Direct and by representatives of Wiley on their Online Library, Informatics (on JCCC and Annual Reviews), Nature Publishing Group, Globe (on Indianjournals.com, AIP, APS and MathSciNet), Springer, Cambridge and Balani Infotech (on ACS and Project Muse). In the technical session, Shri Ashok Kumar Rai, Scientist D (CS) from INFLIBNET Centre delved on UGC – Infonet Digital Library Consortium, its activities and services. The seminar concluded on a positive note with emphasis on the need for today's librarians to adopt ICT judiciously in the changing scenario and to keep track of user needs effectively.

### 7.4.5.9. Abasaheb Parvekar Mahavidyalaya, Yavatmal, Maharastra, September 24, 2011

The Abasaheb Parvekar Mahavidyalaya, Yavatmal, organized one-day User Awareness Programme on Access to E-resources under N-LIST on 24 September, 2011. The Programme was attended by more than 71 participants from various colleges and principals, lecturers affiliated to S G B Amravati University, Amravati, Maharashtra. Dr K O Mandgaonkar, Librarian, Abasaheb Parvekar Mahavidyalaya, Yavatmal, coordinator of this programme, highlighted the objectives of the programme. Ad R S Shinghaniya, Secretary, Abasaheb Parvekar Mahavidyalaya as the Chief Guest highlighted the need and relevance of N-LIST. Prof M R Kherde, University Librarian, S G B Amravati University, Amravati, in his inaugural address, discussed about different library consortium and resource sharing activities that are essential for pooling and sharing the resources amongst college librarians. He called upon the college librarians to concentrate on their work and put all their efforts in the process of implementing library automation, networking and e-resources subscription through N-LIST. Prof A S Sonone, Regional SOUL Coordinator, Maharastra and Goa state, in his presentation, discussed about various e-resources, retrieval methods, and features available on the publisher's web site and demonstrated the method of accessing e-resources through N-LIST.

Dr U V Navalekar, Principal, Abasaheb Parvekar Mahavidyalaya, was also present in the programme. Addressing the participants in the valedictory function, Dr P P Deshmukh, Librarian, Phulsing NaiK College, Pusad, emphasized on the need for the college libraries to subscribe e-resources through N-LIST for their users. Shri S S Ubalkar, Library Assistant, Abasaheb Parvekar Mahavidhyala, proposed a warm vote of thanks.

### 7.4.5.10. Tinsukia Commerce College, Tinsukia, Assam November 27, 2011

The Tinsukia Commerce College, Sripuria, Tinsukia organised a one-day Awareness Programme on Usage of E-resources in collaboration with INFLIBNET Centre, Ahmadabad on 27 November, 2011. Around 90 participants attended the programme from various colleges of Tinsukia, Dibrugarh and Sivsagar district of Assam. This programme was coordinated by Mr. Sadananda Nath, Librarian, Tinsukia Commerce College, Tinsukia. During Inaugural Session, Shri S Nath elaborated on the purpose and importance of organizing user awareness programme for use of e-resources. Dr B K Sen, Principal,

Tinsukia Commerce College, Tinsukia chaired the function and described importance and development of electronic resources in this information era. The distinguished Guest, Dr Narendra Nath Sharma, Retired Professor, Gauhati University, in his inaugural speech, highlighted different forms of documents elaborating on transition of hard to soft forms of documents. He thanked the MHRD, Government of India and INFLIBNET Centre for the remarkable effort taken to provide e-resources for the higher education institutions.

Dr Sanjay Kumar Singh, Regional SOUL Coordinator elaborated on various activities and services provided by the INFLIBNET Centre to the scholarly community. He described in detail the technical Know-how to register and access the electronic resources available through N-LIST programme of INFLIBNET. In the technical session, participants were allowed to have 'hands-on' experience in accessing e-resources in the state-of-the-art laboratory of Tinsukia Commerce College.

In the Valedictory session, Prof N N Sharma sensitised the participants in use of e-resources and requested the participants to keep pace with the upcoming education technology and urged the librarians to participate actively in the process of imparting education. Ms Chhaya Sutradhar, Librarian, Women's College, Tinsukia offered a warm vote of  thanks to the INFLIBNET Centre, Ahmedabad and Tinsukia Commerce College for imparting training to the users in use of electronic resources through N-LIST programme. Mr. Sadananda Nath extended a warm vote of thanks.

### 7.4.5.11. R B Narayanarao Borawake College, Shrirampur, Maharastra, November 28, 2011

One-day User Awareness Programme on Access to E-resources through NLIST was jointly organised by R B Narayanarao Borawake College, Shrirampur and INFLIBNET Centre, Ahmedabad on 28 November, 2011 at Shrirampur, Maharashtra. The programme was inaugurated by Dr B K Mhaske, Principal in presence of Prof I A Nirgude, Vice Principal and Dr D D Patil, Head, Department of Chemistry, R B Narayanarao Borawake College, Shrirampur. Ms. Nalini A Raja, Assistant Librarian, Jamnalal Bajaj Institute of Management Studies, University of Mumbai & Regional SOUL Coordinator, Maharashtra and Goa was invited as a guest of honour and as a resource person. Prof Arjun B Anandkar, Librarian, R B Narayanarao Borawake College, as coordinator of the programme, welcomed the dignitaries, participants and invitees. Prof A B Anandkar highlighted the role of the college library in the development of faculty and enhancing R & D activity of an academic institute.  Ms. Nalini A Raja made presentation on N-LIST, UGC-Infonet and SOUL 2.0. Ms. Raja elaborated on enrolment process to N-LIST and various features available on the publisher's website to access e-resources and it's importance. 204 participants including principals, librarians and research scholars participated in the programme. Prof E D Auti, Head, Department of Politics presented a warm vote of thanks.

### 7.4.5.12. Chaudhary Charan Singh University, Meerut, Uttar Pradesh, December 03, 2011

One-day N-LIST Awareness Programme for College Librarians of Meerut Region was jointly organized by the Department of Library and Information Science, Chaudhary Charan Singh University, Meerut and INFLIBNET Centre, Ahmedabad on 3rd December, 2011 at Chaudhary Charan Singh University, Meerut.

Dr Shiva Kanaujia, Assistant Librarian, Central library organized the programme and also welcomed the guests. The programme was inaugurated by the chief guest Dr Vipin Garg, Vice Chancellor, Chaudhary Charan Singh University, Meerut. In his inaugural address, Dr Garg emphasized on the need for a modern and well maintained library to acquire, organize and disseminate knowledge. Describing the role of UGC in higher education system, he highlighted the leading role played by the INFLIBNET Centre in modernizing its activities and providing access to electronic resources for the benefit of students in university and college libraries of India. He appreciated the initiative of the Department of Library and Information Science, Chaudhary Charan Singh University in organizing the programme as it focus on the optimal use of resources which is as important for ensuring continuous availability of resources. Prof R S Agarwal, Department of History and Prof J K Pundir, Professor & In-charge, Central Library also addressed the participants and invitees. The programme was attended by more than 50 college librarians from different colleges affiliated to Chaudhary Charan Singh University, Meerut and other library science professionals.  In the technical session, Prof C P Vashishth, Regional SOUL Coordinator, Delhi & Uttar Pradesh as resource person, made presentation and highlighted the need and importance of N-LIST programme especially for college libraries. Mr Rajesh Singh, Deputy Librarian, University of Delhi, in his presentation, described in detail how to get registered for accessing the online resources available through N-LIST Programme. The participants took keen interest and actively interacted with the resource persons regarding e-resources and the method of accessing them. Mr Jamal A Siddiqui, Coordinator, Department of Library & Information Science delivered a vote of thank to the participants and organizers.

### 7.4.5.13. North Maharashtra University, Jalgaon, January 19, 2012

The Central Library of North Maharashtra University (NMU), Jalgaon in collaboration with the INFLIBNET Centre, organized one-day User Awareness Programme on Access to E-resources under N-LIST on 19th January 2012 at Central Library Hall, NMU Campus. A total number of 95 participants consisting of teachers and librarians of colleges affiliated to NMU attended the programme. Dr. T. R. Borse, University Librarian, NMU presented an outline of the programme, activities and services of the INFLIBNET Centre to the participants and guest. He emphasized on the need for holding information literacy programmes for the optimum use of e-resources. The programme was inaugurated by Prof.  D. G. Hundiwale, Director, Board of Colleges and University Development, NMU. Dr Hundiwale, in his presidential address, emphasized on the need for awareness among teaching communities regarding the use of electronic resources and mentioned the challenges pertaining to Internet stressing. He spoke about changing roles of librarians to achieve effective library services for their library users. Shri H. G. Hosamani, Scientist C (LS), INFLIBNET Centre made a presentation on INFLIBNET activities, services and functions. He made a detailed presentation on N-LIST programme including available e-resources, process of joining the programme, methods of access, and cost benefit analysis. Dr. Anil N Chikate, Deputy Librarian, NMU, Jalgaon coordinated the programme. Ms. Neelima Mahske, Information Scientist proposed a warm vote of thanks to the participants, guests, authorities of the University and staff of the Central Library.

### 7.4.5.14. Mahatma Gandhi University, Kottayam, January 20, 2012

The Mahatma Gandhi University, in collabaration with the INFLIBNET Centre, organised one-day User Awareness Programme on N-LIST at the Auditorium, School of Environmental Studies, Mahatma Gandhi University on 20th January 2012. 72 participants consisting of principals, teachers and librarians from the affiliated colleges of Mahatma Gandhi University participated in the programme. Mrs. Laila T. Abraham, Deputy Librarian-in-charge, Mahatma Gandhi University and Co-ordinator of the programme welcomed the participants and guest & Dr. Rajan Varughese, Pro-Vice Chancellor of the University presided over the function. Dr. Varughese, opined that it was almost impossible task to obtain comprehensive information on a particular topic about a decade ago because of the lack of availability of e-resources, the situation is now reversed because of excessive availability of qualitative e-resources under the N-LIST programme that is unaffordable for an individual university or college. Prof. (Dr.) Rajan Gurukkal, Vice Chancellor of the University inaugurated the programme. Prof. Gurukkal, in his address, focused on the effort of INFLIBNET Centre in introducing N-LIST programme for the benefit of colleges and other educational institutions. He expressed that easy and timely access to information is like a catalyst in growth of knowledge economy. Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre was the resource person for the programme. Shri Rai made presentation on the features of N-LIST and e-resources available to the colleges under the programme including how to join, how to access e-resources, etc. Shri K. K. Murali, Convenor of the programme delivered a warm vote of thanks to the participants and guests. The certificates of participation were distributed at the end of programme.

### 7.4.5.15. Sree Narayana Guru College (SNGC), Coimbatore, Tamil Nadu, January 21, 2012

The Sree Narayana Guru College (SNGC), Coimbatore, in collaboration with the INFLIBNET Centre, organized one-day User Awareness Programme on Access to E-resources under the N-LIST on 21st January 2012. Mr.E.K.Girisan, Sr. Lecturer, Dept of Computer Science, Sree Narayana Guru College, Coimbatore welcomed the participants and guests to the programme. The programme was inaugurated by Dr. M. Illangovan, Principal I/C, Sree Narayana Guru College, Coimbatore. Shri P. Kannan represented the INFLIBNET Centre as a Resource person in the training programme. Shri Kannan briefly explained the NLIST Initiatives for the benefit of academic and research community and enlightened the participants on concept of e-resources and availability of various resources under NLIST programme. Certificates of participation were distributed at the end of the programme. The Programme was concluded with a warm vote of thanks to the participants and guests. 145 participants from various colleges and universities attended the programme.

### 7.4.5.16. St. Joseph College of Education for Women, Guntur, Andhra Pradesh, January 28, 2012

The Department of Library and Information Science, St. Joseph's College of Education for Women, Guntur, Andhra Pradesh, in collaboration with the INFLIBNET Centre and the Department of Library and Information Science, Nagarjuna University, Guntur organised one-day User Awareness Programme on N-LIST on 28th January, 2012. Dr. B.A. Rani, Librarian, St. Joseph's College of Education for Women and coordinator of the programme welcomed the participants and guests to the programme. 41 participants

consisting of faculty, librarians and research scholars of the university and colleges affiliated to the University participated in the programme. The programme was inaugurated by Prof. B. Ramesh Babu, DLIS, Madras University, Chennai, Prof. Kodela Venkata Rao, Nagarjuna University, Guntur and Dr. Sr.Ignatius Loyola, Correspondent, St. Joseph's College of Education for Women, Guntur by lighting the traditional lamp. Prof. Kodela Venkata Rao presided over the programme. Prof. Rao, in his presidential address, emphasized on the need of the N-LIST programme. He suggested that all the librarians should almost use of the benefit of access to e-resources available under N-LIST programme. Dr. Sr. Ignatius Loyola conveyed greetings to the dignitaries on the dais and the participants. Prof. B. Ramesh Babu, in his key note address, presented an overview of the current activities of the INFLIBNET Centre. He focused on the objectives and importance of N-LIST Programme. Shri Kiran Kumar, SOUL Technical Assistant, SOUL Service Centre, Southern Region acted as a resource person and made presentation on access to e-resources through NLIST Programme. Participants were distributed certificates of participation. The Programme was concluded with a warm vote of thanks to the participants and guests.

41 participants from various colleges and universities attended the Workshop. They were very much satisfied and inspired to join the N-LIST programe. The librarians of the engineering colleges were of the opinion that it would be better if the N-List programme could be extended to engineering colleges also.

### 7.4.5.17. Bhagat Phool Singh Mahila Vishwavidyalaya, Sonipat, Haryana, January 31, 2012

The User Awareness Programme on Access to E-Resources, jointly organized by the INFLIBNET Centre and Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat, Haryana was held on 31st Jan. 2012. Dr. O.P. Hooda, University Librarian and Coordinator welcomed the dignitaries on the dias as well as guests and the participants. The User Awareness Programme was formally inaugurated by Dr. (Mrs.) Pankaj Mittal, Hon'ble Vice Chancellor, Dr. (Mrs.) Balbir Kaur, Hon'ble Pro-Vice Chancellor, Ms. Shimla, Registrar, Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre and Dr. O.P. Hooda lighted the traditional lamp. Mr. Ashok Kumar Rai, in his inaugural address, mentioned the role played by the INFLIBNET Centre in providing a channel to the academicians for exchange of information from sources within the country and abroad. Dr. (Mrs.) Pankaj Mittal, Hon'ble Vice Chancellor of Bhagat Phool Singh Mahila Vishwavidyalaya, addressed the participants regarding facilities of e-resources provided by the INFLIBNET. More than 200 participants consisting of faculty members, research scholars, students, library professionals of the University, libraries from neighbouring academic and research libraries attended this programme. Mrs. Shimla, Registrar of the University extended a warm vote of thanks to the organizers, dignitaries, faculty members and participants. The participants gave their positive feedback revealing that the programme was very impressive and useful to the users. The participants desired that such programmes should be organized more often in the future.

### 7.4.5.18. Nagarjuna Government College, Nalgonda, Andhra Pradesh, February 3, 2012

The DLIS, Nagarjuna Government College, Nalgonda in collaboration with the INFLIBNET Centre and Mahatma Gandhi University, Nalgonda organized one-day User Awareness Programme on Access to E-resources under N-LIST on 3rd February 2012. The Programme Coordinator, Shri J Laxma Reddy,

Librarian, Nagarjuna Government College welcomed the participants and guests to the programme. The programme was inaugurated by Prof. Katta Narsimha Reddy, Vice Chancellor, Mahatma Gandhi University, Nalgonda. Prof. K Narsimha Reddy, in his inaugural address, emphasized on the need to make use of e-resources at college to strengthen the research activity and to improve the quality of education. Prof. S. Sudershan Rao, DLIS, Osmania University and Shri P. Diwakar Head, Library CCMB Hyderabad enlightened the participants on concept of e-resources and availability of various resources under NLIST programme. Prof. K. Pochanna, Registrar, Mahatma Gandhi University, Nalgonda, in the valedictory address, stated that all affiliated colleges have to opt for N-LIST programmes in order to improve the library services in their colleges and to support the students and researcher at college level. Prof. Pochanna distributed the certificate of participation to the participants. 50 participants consisting of Principals and librarian working in Government, aided, non-aided and affiliated colleges under Mahatma Gandhi University attended the programme.

## 7.4.6. SOUL Support Services

### 7.4.6.1. 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 2577 across the country as per details given in Appendix VII. The SOUL Support Cell co-ordinates with the library professionals and SOUL developers for resolving queries regarding SOUL software and customization issues raised by SOUL users. The SOUL Support Cell consists of staff members from library and computer science background. The tools used for handling queries are mentioned below and depicted in Figure 9:

**Telephone Helpline:** The Centre has extended a dedicated telephone line (079-26300007) with extensions 28 and 35 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 Google Talk and E-Mails.

**INFLIBNET Chat:** Besides, Google Talk and email, users can also log on to http://www.inflibnet.ac.in/chat to chat and interact with SOUL Support Staff in real time.

**Remote Connection:** SOUL Support Cell uses the software such as Teamviewer, ShowMyPC etc. to remotely connect the User's SOUL server to view and solve the query 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:** To help the users of SOUL 2.0, FAQs (Frequently Asked Questions) were developed based on long-term experience including Screen Shot and Step-wise solution to the queries that are being asked frequently. (www.inflibnet.ac.in/soul/faq.htm)

**SQM:** The Centre has developed a new software tool called Soul Query Management (SQM) 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.

**Downloads:** Users can download Flow Chart for every SOUL 2.0 module and e-book version of User Manual to learn the operations on their own from the INFLIBNET's website. User can also download SOUL 2.0 Demo Version (up to 500 entries) and can practice on SOUL 2.0. Besides, minor updates of SOUL 2.0 can also be downloaded from the website free-of-cost which facilitate users to keep their SOUL2.0 software updated.
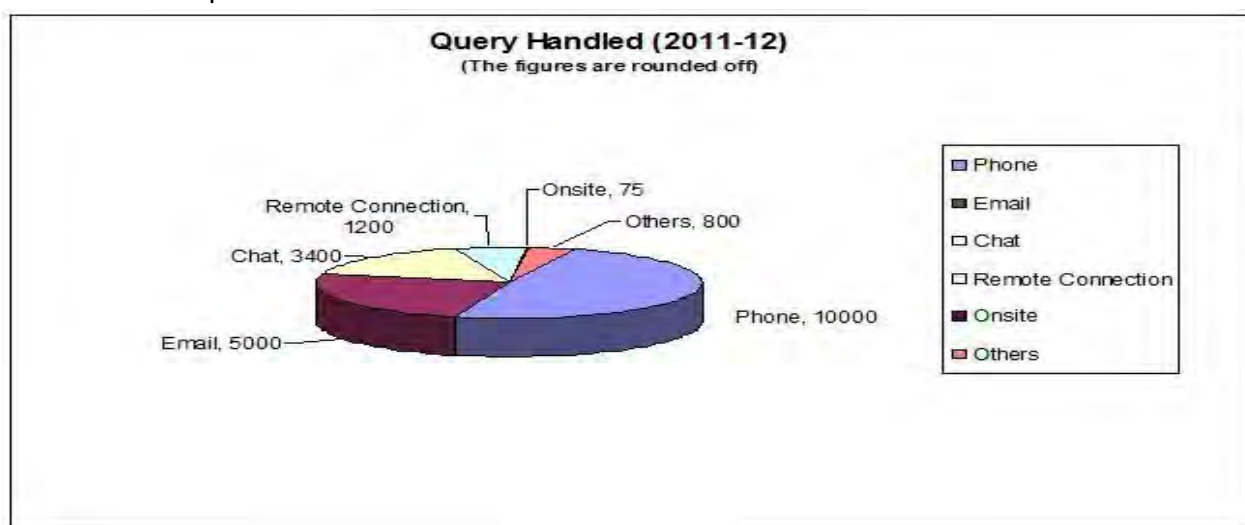


**Fig. 9: SOUL Query Handled by Technical Assistant**

### 7.4.6.2. SOUL Regional Support Services

The Centre has appointed six SOUL Coordinators in different geographical regions of the country. Besides, the INFLIBNET Centre coordinates activity of maintenance and promotion of SOUL Software in the state of Gujarat and Rajasthan. Requisite numbers of technical staff are deployed for this purpose based on number of SOUL installations in the two states.Each SOUL Coordinator employs 2 to 3 technical assistants so as to provide proactive support to the SOUL users in their respective regions. 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 8:

| Name | Address/Phone No. / Email/ State |
|---|---|
| **Prof. C. P. Vashishth** | ***Delhi, Uttaranchal & UP*** |
| | 28-B, Pocket 'A' MIG Flat |

| | |
|---|---|
| | Ashok Vihar, Phase III, Delhi – 110 052.<br>Ph. No. : 011-25774507 (O) 011-27112721 (R)<br>Email : cpv_36@yahoo.co.in |
| **Dr. Sanjay Singh** | ***North Eastern Region*** |
| | Dept of Library and Information Science<br>Guahati University, Guwahati- 781014, Assam.<br>Mobile No 09435040402, Email: sksgu1@gmail.com |
| **Shri Ashok S. Sonone** | ***Maharashtra & Goa*** |
| | Librarian,<br>Sitabai Arts College,<br>Civil Line, Akola – 444 004, Maharashtra.<br>Mob.: 094217 55869<br>Email: asonone67@gmail.com |
| **Shri Rakesh Kumar Khare** | ***M.P. & Chhattisgarh*** |
| | Govt. M.L.B. Girls PG (Auto) College,<br>Bhopal- 462002, Madhya Pradesh.<br>Mob. : 099265 35452<br>Email: orakesh16@yahoo.co.in |
| **Shri J. Laxma Reddy** | ***A.P., Karnataka, Pondicherry and Kerala*** |
| | Lecturer in Library Science,<br>Nagarjuna Government College (A),<br>Nalagonda– 508 001, Andhra Pradesh.<br>Ph. No. : 099081 15333<br>Email: clicngc@gmail.com |
| **Smt. Nalini A Raja** | ***Maharashtra a*nd Goa** |
| | 302, Hari-Kripa,<br>L.T.Road, Borivli (W),<br>Mumbai - 400 092,Maharashtra .<br>Mob.:09920790757, E-mail:nalini99@gmail.com |
| **INFLIBNET SOUL Support** | ***Gujarat and Rajasthan*** |
| | Shri H G Hosamani, Scientist B (LS)<br>And his Team of the SOUL Support<br>INFLIBNET Centre, Ahmedabad-380009,Gujarat.<br>Phone: 079-26300007<br>E-mail: soul@inflibnet.ac.in |

**Table 8: Names of the SOUL Coordinators with their Contact Address**

## 7.5. Bibliographic Standards, Formats and Protocols

*Shri Rajesh Chandrakar, Scientist B (LS)*

Bibliographic standards and protocols are backbone of any bibliographic database and related software. The standards and protocols streamline the implementation of activities, provide utmost quality, consistency and most importantly, facilitate interoperability, data transfer and exchange of the system.

Uniform standards and protocols are pre-requisite for data transfer, exchange and interoperability of the system. It facilitates merging of records in union catalogue and maintaining of its quality. The development and maintenance of union catalogues are key activities of the Centre. As per the directives from the MHRD and recommendation of Expert Committee appointed by the Centre, important fields from MARC21 bibliographic format were identified according to practices in Indian libraries. The committee recommended use of MARC21 bibliographic format in university and college libraries. Accordingly, MARC21 bibliographic format was implemented in SOUL 2.0 and advised each participating libraries to use MARC21 bibliographic format for creation of bibliographic records using MARC 21 Compliant software. As such, the MARC21 compliant SOUL2.0 software was developed and released in Jan 2009. SOUL 2.0 is also fully compliant to other standards such as Unicode, ISO2709, MARCXML, AACR2, SIP2.0 and NCIP2.0 protocols. Besides, the Dublin Core Metadata scheme was evolved for use in Shodhganga, a full-text database of Indian theses and dissertations and Shodhgangotri, a database of ongoing Indian theses and dissertations with their synopsis. These standards and some of the guidelines prepared by the Centre such as "Guidelines for Data Capturing: A User Manual" and "SOUL Guidelines for Data Capturing: A User's Guide" are available for download on the INFLIBNET website: http://www.inflibnet.ac.in/publication/. Other standards recommended to the participating libraries are:

- ⏩ Anglo American Cataloguing Rules 2 (Rev.)
- ⏩ Library of Congress Subject Headings

The Centre participates in the activities of the National Information Standards Organization (NISO) as its Voting Member. The NISO is a non-profit association accredited by the American National Standards Institute (ANSI), which identifies, develops, maintains and publishes technical standards to manage information in digital environment. NISO standards apply in both traditional and new technologies to the full range of information related needs, including retrieval, re-purposing, storage, metadata and preservation. Leaders of the organizations in the fields of publishing, libraries, IT and media serve as Voting and Alliance Members to the NISO. With the NISO, which is closely associated with the Technical Committee (TC) 46 of the International Organization for Standardization (ISO), the Centre is also involved with the activity of TC46. The TC46 Committee on Information and Documentation of the ISO serves to the following subcommittees:

a. SC4 on Technical Interoperability
b. SC8 on Quality – Statistics and Performance Evaluation
c. SC9 on Identification and Description
d. SC11 on Archival / Records Management

The Centre is a member of the Cataloguing, Information Technology and Serials Working Group of the IFLA (International Federation for Library Associations and Institutions) based at The Hague, Netherland. Further, the Centre is also Review Group Member of the IFLA FRBR (Functional Requirements for Bibliographic Records). It is associated with the Technical Committee MSD5 on Documentation and Management of Bureau of Indian Standards (BIS), New Delhi at the national level as its Voting Member. Besides, the Centre also serves as a Member on its different Panels formed for various activities and development of standards. As a member of various Institutions involved in formation of standards, the Centre participated in development of a number of standards.

## 7.6. Open Access R & D Group

The current system of scholarly communication inhibited rather than promote access to scholarly information at a time when technology can enable vast improvement in access, speed of publication and save in 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 a 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 R & D Group at the INFLIBNET Centre is working towards spread of open access movement in universities and institutions of higher learning. The Centre has started following two initiatives during the period under report:

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

*Shri Rajesh Chandrakar, Scientist B (LS)*
*Shri Mohit Kumar, STA (CS)*



**Fig. 10: Open Journal Access System (OJAS)**

The INFLIBNET Centre has installed and configured Open Journal System (OJS), an open source software for electronic publishing of the journals, on servers at INFLIBNET 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. . Figure 10 is a screenshot of Open Journal Access System (OJAS) interface. The following thirteen journals are currently hosted on OJAS:

- Journal of Literature, Culture and Media Studies - published by Prof. N D R Chandra, Head, Department of English, Nagaland Central University;
- 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; and
- 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 Department of Management, 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

### 7.6.2. Shodhganga: A Reservoir of Indian Theses (http:// shodhganga.inflibnet.ac.in)

*Dr. Jagdish Arora, Director*
*Shri Manoj Kumar K, Scientist D (CS)*
*Shri Ashok Kumar Rai, Scientist D (CS)*
*Shri Yatrik Patel, Scientist D (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Ramiz Malik, Project Officer (CS)*
*Shri Bhavesh Patel, Project, Officer (CS)*
*Smt. Priti Sharma, Project Officer (LS)*
*Ms. Archita Muchhadia, Project Assistant (LS)*

Shodhganga is a digital repository set-up for submission of electronic version 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) 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 that uses internationally recognized protocols and interoperability standards. The repository provides a platform to research students in universities to deposit, re-use and share their theses and dissertations. Figure 10 depicts website of Shodhganga: A Reservoir of Indian Electronic Theses and Dissertations.



**Fig.11: Shodhganga Website**

Organisation of Shodhganga reflects academic structure of every university covered under 12 (B) /2(f) Sections of the UGC Act, to facilitate scholars to submit their theses in the respective Department / Centre of their universities. Ingestion interface of Dspace has been customized to meet the specific requirements and make the process of submission easy and simple. 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 themselves once they get themselves registered. The interface also facilitates self-registration of scholars wherein user gets e-mail alerts and notifications at different stages of workflow. The Shodhganga Website provides all information relevant to the students, research supervisors and university authorities with regard to ETDs including their responsibilities, access policies, submission process, metadata structure, etc.

Considering the fact that process of adaptation of the UGC Notification, 2009 may take time for universities, research students are 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 version of all the theses from a given university are submitted into the Repository.

Universities are signing MoU with INFLIBNET Centre for granting non-exclusive rights to host their ETDs in Shodhganga. Moreover, students from different universities have submitting electronic version of their theses into the repository on voluntarily basis. As on 31st March, 2012, students from 50 universities have submitted their theses into the repository and 52 universities have signed MoU with the INFLIBNET Centre. The list of universities who has signed MoU and contributed softcopy of their theses into Shodhganga is given in Appendix-VIII. Total number of theses submitted into the repository has grown to 2,710. The list of universities who contributed softcopy of their theses into Shodhganga but not signed MoU are given in Appendix-IX.

Shodhganga manual is also prepared for the benefit of the Research Scholars and University Coordinators describing submission method and work flow. The Manual was released on 1st March 2012 at Sikkim University during PLANNER 2012. E-Book and HTML version of the manual is available on Shodhganga website. A special tutorial was also arranged during the national convention on 1st March 2012 during PLANNER 2012.

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

On recommendation of the INFLIBNET Centre, UGC has constituted a Committee with Prof. V G Talawar as Chairman to recommend modalities and criteria for allocation of funds to universities that have signed MoU with INFLIBNET Centre on Shodhganga. Based on the recommendations of the Committee, the UGC has launched a new scheme for universities signatory to the MoU on Shodhganga with INFLIBNET Centre. The scheme provides for the following incentives to the universities signatory to the MoU on Shodhganga with INFLIBNET Centre.

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

A detailed guideline on Shodhganga scheme with its objectives, eligibility/ target, procedure for joining Shodhganga, monitoring of the project, etc. proposed by the committee have been approved by the UGC Commission. The Committee made recommendations on eligibility criteria, formula for allocation of funds for digitisation of backlist of theses as well as for setting up of ETD laboratory. Based on the eligibility criteria and formula devised for allocation of funds, the Committee recommended allocation of funds to 39 universities as well as to the INFLIBNET Centre. The Scheme and the recommendation of the committee was approved by the Commissions.

### 7.6.2.2. Manual on Shodhganga

A detailed manual on shodhganga was prepared during the year under report. The manual, available on the Shodhganga website, provides detailed instruction on "how to join" Shodhganga, roles and responsibilities of INFLINET Centre, universities and research Scholors, process of registration and

submission of theses, citation style for bibliographic details, search and browse interface for Shodhganga, etc. The printed copies of manual were distributed to the universities signatory to MoU on Shodhganga with INFLIBNET Centre.

### 7.6.2.3. Awards and Recognition

Shodhganga received the "e-INDIA Jury Choice Award" for the Best ICT Enabled Higher Education Institute of the Year 2011. Shri Manoj Kumar K, Scientist-D (CS) received the Award from Smt. Smriti Irani, MP (Rajya Sabha) and TV Actress in presence of Shri Ravi Saxena, IAS, Addl Secretary, Govt of Gujarat in a glittering ceremony organised at Gandhinagar.



**Fig. 12. e-INDIA Jury Choice Award**

The Centre also received feedbacks from academicians which include appreciation from a retired professor from Canada complimenting the effort of the INFLIBNET Centre for making the full-text theses available for public access which his student could use in his research.

### 7.6.2.4. Shodhgangotri: A Repository of Synopsis submitted to Indian Universities for Registration in Ph.D. Programme

*Shri Manoj Kumar K, Scientist D (CS)*
*Shri Yatrik Patel, Scientist D (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Shri Divyakant Vaghela, Scientist B (CS)*
*Shri Ramiz Malik, Project Officer (CS)*
*Shri Bhavesh Patel, Project, Officer (CS)*
*Smt. Priti Sharma, Project Officer (LS)*
*Ms. Archita Muchhadia, Project Assistant (LS)*

"Shodhgangotri" is a new initiative that compliments "Shodhganga". While Shodhganga is a repository of full-text theses submitted to universities in India, "Shodhgangotri" hosts approved synopsis of research topic submitted to the universities in India by research scholars for registering themselves under

the Ph.D programme. The repository, on one hand, would reveal the trends and directions of research being conducted in Indian universities, on the other hand it would avoid duplication of research.

Under this new initiative, research scholars / research supervisors in universities can deposit 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 mapped to full-text theses 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, Shodhgangotri is populated with total 160 researches in progress. At present Shodhganga and Shodhgangotri are working as separate interface, but in future link from Shodhgangotri to shodhganga will be made once the theses is completed and available in Shodhganga.

### 7.6.2.5. Visual Browser for ShodhGanga

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Dinesh Rayka, Project Officer (CS)*

Visual Semantic Browser is implemented for browsing resources available in Shodhganga, an Indian repository for theses and dissertations and independency on the predefined hypertext search which is mapped with the relationships with the fields like author, title, guides, keywords, etc.

A visual browser was evolved to browse the semantically associated fields of theses and dissertations based on title (works), authors, guides, universities and keywords in Shodhganga.

**Technologies:** Java, RDF Scheme, JSPlumb and JOAI.
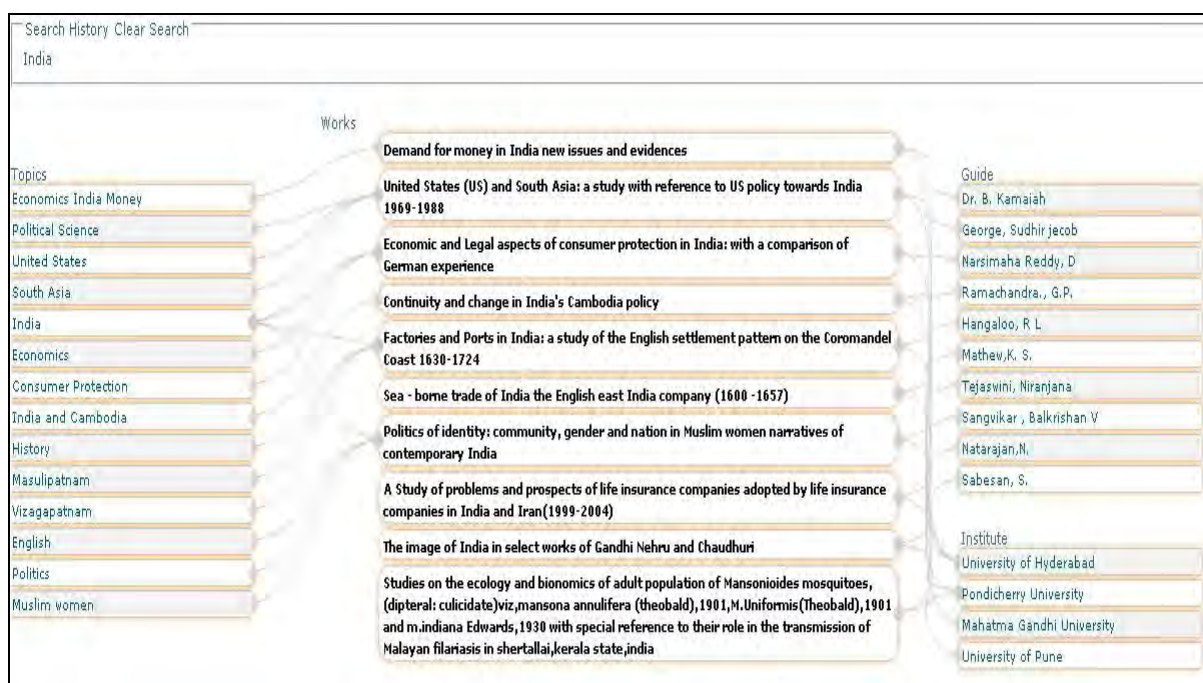


**Fig. 13. Visual Browser for ShodhGanga**

## 7.7. Consortia-based Subscription to E-resources

The INFLIBNET Centre has set-up two separate consortia, namely UGC-INFONET Digital Library Consortium and N-LIST to extend access to e-resources to universities and colleges respectively. Two separate consortia were established not only to cater to the diverse needs of two sets of institutions, namely universities and colleges, but also to satisfy the requirements of different funding sources and economic models. A brief description of the two consortia is given below.

### 7.7.1. UGC-Infonet Digital Library Consortium

*Dr. Jagdish Arora, Director*
*Shri Ashok Kumar Rai, Scientist D (CS)*
*Ms. Kruti Trivedi, Scientist - B (LS)*
*Shri Dinesh Kumar Pradhan, STO-I (LS)*
*Shri Saroj Kumar Panda, STA-I (LS)*

The UGC-Infonet Digital Library Consortium was launched by Dr. A.P. J. Abdul Kalam, the then President of India during December 2003. The UGC-Infonet Digital Library Consortium provides current as well as archival access to more than 7,500+ core and peer-reviewed journals and eleven bibliographic databases from 25 publishers including commercial publishers, scholarly societies, university presses and aggregators in different disciplines. The programme was implemented in a phased manner.  In the first phase that began in 2004, access to e-resources was provided to 50 universities who had Internet connectivity under the UGC-Infonet Connectivity programme.  In the second phase, 50 more universities were added to the programme in the year 2005 as additional universities got Internet connectivity through UGC-Infonet programme. So far 182 Universities and 14 National Law Schools/ Universities including all the IUCs of the UGC, are being provided differential access to subscribed e-resources. These e-resources cover almost all subject disciplines including arts, humanities, social sciences, physical sciences, chemical sciences, life sciences, computer sciences, mathematics and statistics, etc. The programme is wholly funded by the UGC and executed by the INFLIBNET Centre. The Centre has also initiated Inter-Library Loan (ILL) through JCCC (Journal Custom Content for Consortium). The JCCC provides article-level access to all articles published in journals subscribed by the UGC-Infonet Digital Library Consortium as well as content in journals subscribed by 28 university libraries designated as ILL Centres of the INFLIBNET Centre.

The Consortium has also launched its "Associate Membership Programme" wherein private universities and other research organizations are welcomed to join the Consortium for selected e-resources.

A separate website is maintained for the UGC-Infonet Digital Library Consortium as shown in Figure 14.
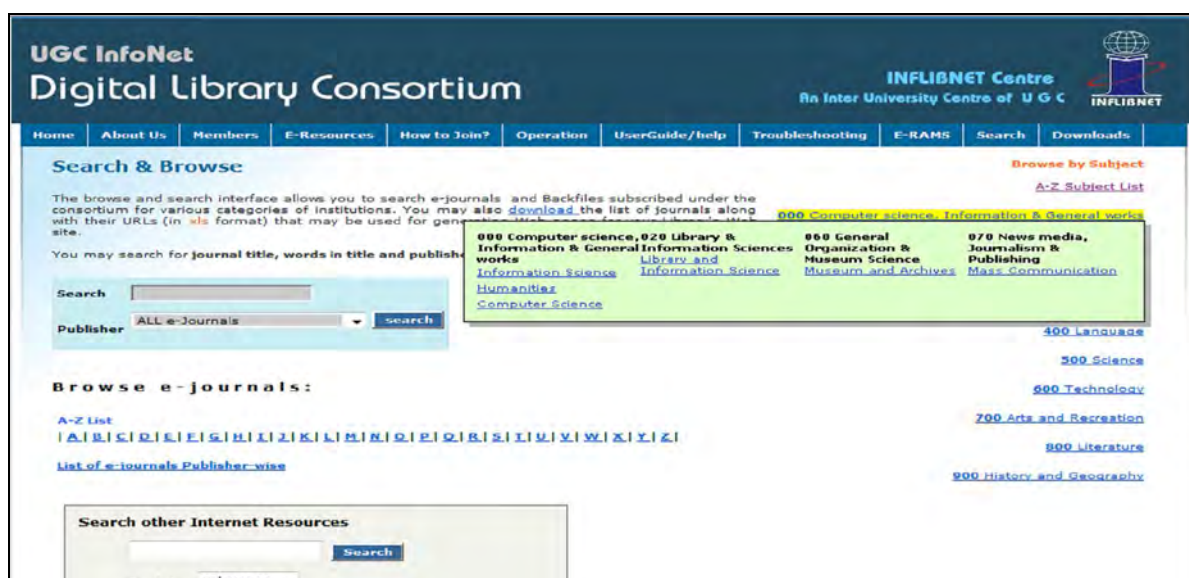
**Fig. 14: Website of the UGC-Infonet Digital Library Consortium**

### 7.7.1.1. Objectives

The major aims and objectives of the UGC-Infonet Digital Library Consortium are as follows:

- to subscribe electronic resources for the universities at a highly discounted rates of subscription and at the best terms and conditions;
- to extend the benefit of consortium-based subscription to all Indian universities and colleges;
- to extend the benefit of consortium to associate members of the Consortium;
- to impart training to the users, librarians, research scholars and faculty members in member institutions on the use of electronic resources with an aim to optimize their usage;
- to promote increased interactions amongst the member libraries;
- to catalyse increase in the research productivity of the institutions both in terms of quality and quantity of publications;
- to evaluate the usage of the resources subscribed; and
- to identify new resources that are required to be subscribed under the programme depending on the availability of funds.

### 7.7.1.2. Governance of UGC-Infonet Digital Library Consortium

### 7.7.1.2.1. National Steering Committee

The UGC-INFONET Digital Library Consortium is operated by the Centre under the guidance of a National Steering Committee (NSC) constituted by the UGC. The NSC is responsible for policy issues of the Consortium. The Committee decides on e-resources to be subscribed from various publishers and its numbers along with beneficiary universities. The NSC was also responsible for negotiating the subscription rates of e-resources in its formative years. The current composition of the NSC is given in Appendix X.

### 7.7.1.2.2. Negotiation Committee

The Negotiation Committee is constituted as per the UGC Guidelines on UGC-Infonet Digital Library Consortium for negotiating the subscription rates of e-resources. The current composition of the Negotiation Committee is given in the Appendix XI.

### 7.7.1.3. Current Status

The Consortium offers access to more than 7,500 peer reviewed electronic journals and eleven bibliographic databases from 25 major publishers and aggregators. The access of the journals include current issues as well as 10 years back files (from 1997 in most cases) and from volume 1 onwards in some cases (American Chemical Society, American Physical Society, Institute of Physics and JSTOR). The service is offered to 181 universities and 14 national law schools/universities as core members under different phases as given in Appendix XII. The details of subscribed e-resources are given in Appendix XIII.

### 7.7.1.3.1. Subscription to 10 Subject Collection of ScienceDirect

Since January 2011, the UGC-INFONET Digital Library Consortium has extended access of 10 subject collections of ScienceDirect to 60 universities wherein university were required to maintain their current print subscription. Since January 2012, the Consortium has renewed subscription to ScienceDirect independent of print subscription by member universities. As such, universities are now free to drop their print subscription. Additionally, Elsevier has extended the facility to download 500 articles to every university that can be used by the university authorities on username & password basis for downloading articles from the non-subscribed content. The universities are getting access to 1036 titles from 10 subject collections, i.e. Biochemistry, Genetics & Mol. Biology, Agriculture & Biological Science, Chemistry, Computer Science, Economics, Immunology & Microbiology, Mathematics, Physics & Astronomy, Social Sciences and Psychology with access to back files since 1995.

### 7.7.1.3.2. Subscription of Legal Databases for National Law Schools/Universities

Three law resources namely HeinOnline, Manupatra and Westlaw India are being subscribed for 14 national law schools/universities (see Appendix XIII) from April 2011 onward.

### 7.7.1.3.3. Subscription to SciFinder Scholar for Additional Universities

During the period under report, the access of SciFinder Scholar was extended to nine additional universities namely, University of Mysore, Mangalore University, NEHU, Tezpur University, Jamia Milia Islamia, BIT Ranchi and University of North Bengal, Jawaharlal Nehru University and Cochin University of Science and Technology. With inclusion of these universities, total number of universities having access to SciFinder Scholar has increased to 31.

### 7.7.1.3.4. Purchase of E-journal Archive

The UGC-INFONET Digital Library Consortium purchased archives of e-journals from American Institute of Physics (AIP), Royal Society of Chemistry (RSC), Nature (1987-1996), Oxford University Press (OUP), SIAM and selected subject collections from Elsevier Science (Physics, Chemistry (Organic + Inorganic + Physical & Analytical), Mathematics, High Energy/ Nuclear Physics & Astronomy) on one-time payment and perpetual access basis for 20 to 30 universities.

### 7.7.1.3.5. Meeting of the ILL Centres of JCCC at Informatics India, Bangalore

The INFLIBNET Centre had identified 22 university libraries as ILL Centres in 2008 so as to initiate inter-library loan amongst libraries that are member of the UGC-INFONET Digital Library Consortium. The meeting of representatives of university libraries designated as ILL Centres of the INFLIBNET was held on 16th September 2011 at Informatics India Ltd. to discuss the mechanism to improve and expand ILL services through JCCC. 20 university Librarians / their representatives from universities, designated as ILL Centers of the INFLIBNET, attended the meeting. In addition, university librarians / their representatives from 6 universities were invited to attend the meeting to join this initiative as new ILL Centres. With the addition of six new Universities as ILL Centres, the total number of ILL Centres has increased to 28.

### 7.7.1.3.6. Associate Membership Programme

The resources subscribed under the UGC-INFONET Digital Library Consortium are made available on subscription basis to private universities and other institutions under the "Associate Membership Programme". Under the scheme, private universities and other researcher institutions can enrol themselves as "Associate member" and subscribe to resources of their choice available under the Consortium. The rates of subscription are same as applicable to Consortium for its core members. Associate members are charged an annual membership of Rs. 5,000.00. The subscription of e-resources is subject to the approval of respective publishers. As on 31st March 2012, 109 universities and other institutions have enrolled as associate members and are subscribing to different sets of resources.

### 7.7.1.4. Usage of E-Resources

Most publishers maintain detailed usage statistics for resources made accessible to universities by them. The publishers provide username and password to subscribing institutions for accessing the usage statistics for their resources for monitoring purpose. Most publishers provide COUNTER compliant usage statistics, which is an International standard for comparison of usage available through various platforms. The usage statistics from various publishers' website are downloaded on regular intervals and made accessible to the member universities on INFLIBNET website through an interface called e-RAMS (Electronic Resource Access Management System). Universities with low usage of e-resources are requested to optimize their usage.

Table 9 reflects consistent increase in usage from 2010 to 2011 for all e-resources. There is an increase in usage of all the e-journal providers except for Annual Reveiws (AR), Institute of Physics (IOP) and Taylor & Francis (T&F). However, since the journals published by Taylor & Francis moves from their earlier Informaworld platform to Taylor and Francis Online platform, the usage are not correctly registered at the publishers website causing lower registration of usage statistics for T&F. In cases of bibliographic databases, increasing in usage is registered for all the publishers except JCCC.

| Sr. No. | Publishers | No. of Downloads | | |
| --- | --- | --- | --- | --- |
| | | 2010 | 2011 | % Increase in 2011 |
| 1 | ACS | 1196487 | 1398741 | 16.90 |
| 2 | AIP/APS | 377910 | 392744 | 3.93 |
| 3 | AR | 71637 | 63115 | -11.90 |
| 4 | Blackwell | 526986 | 1048171 | 98.90 |
| 5 | CUP | 58165 | 84932 | 46.02 |
| 6 | Elsevier | 181162 | 4121314 | 2174.93 |
| 7 | Emerald | 74499 | 79449 | 6.64 |
| 8 | IOP | 249259 | 246445 | -1.13 |
| 9 | JSTOR | 2140689 | 2252342 | 5.22 |
| 10 | Nature | 107648 | 121936 | 13.27 |
| 11 | OUP | 304269 | 375761 | 23.50 |
| 12 | PM | 86094 | 96260 | 11.81 |
| 13 | Portland | | 20268 | 0.00 |
| 14 | RSC | 220134 | 364576 | 65.62 |
| 15 | SpringerLink | 1501513 | 1868341 | 24.43 |
| 16 | TandF | 378814 | 223041 | -41.12 |
| 17 | Pr. Euclid | 2151 | 2919 | 35.70 |
| 18 | SIAM | 1643 | 5462 | 232.44 |
| **E-journals** | | **7479060** | **12765817** | **70.69** |
| 1 | JCCC | 1820101 | 1144521 | -37.12 |
| 2 | MathSci | 148875 | 171168 | 14.97 |
| 3 | SciFinder | 273487 | 285094 | 4.24 |
| 4 | WOS* | 86261 | 211724 | 145.45 |
| **Databases** | | **2328724** | **1812507** | **-22.17** |

**\*WOS is available to 100 universities through the NLIST Project.**

**Table 9: Publisher wise Usage from 2010-2011**

Comparative usage of e-resources in 2010 and 2011 is given below in Figure 15.
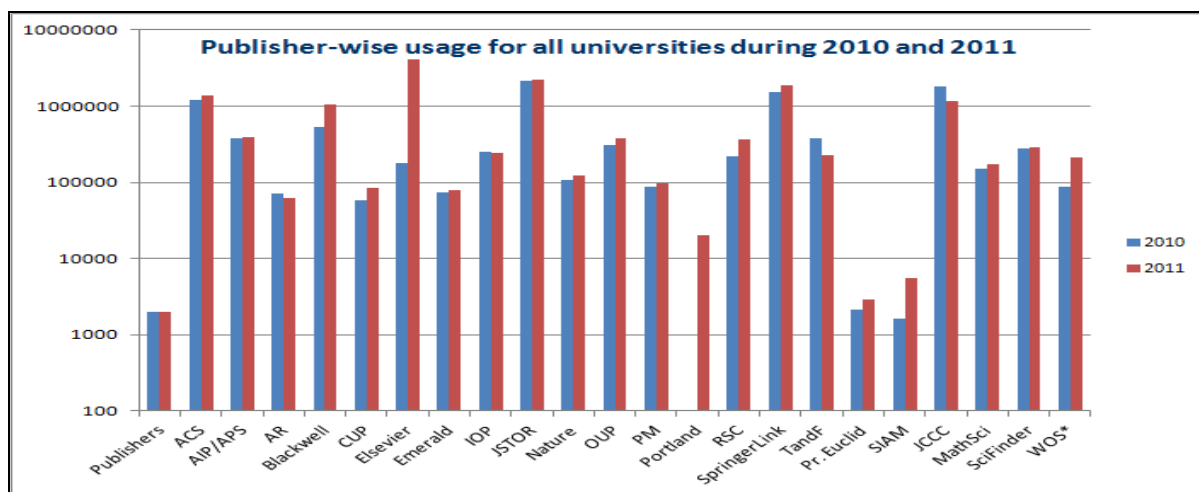
**Fig. 15: Publisher-wise Usage of Resources for Year`s 2010 and 2011**

### 7.7.1.5. Economics of UGC-Infonet Digital Library Consortium

### 7.7.1.5.1. Annual Increase in Rates of Subscription

In general, there is 10% to 15% annual increase in subscription rate of resources. However, Consortium has negotiated the rates of increase in price of the e-resources and fixed the price cap within 4-5% annually.

### 7.7.1.5.2. Intensity of Usage: Cost Recovery

"Cost Recovery" and "Average cost of article per download" can be used effectively to judge cost effectiveness of e-resources. These two factors reflect the intensity and frequency of usage of e-resources by member institutions in a Consortium.

The cost recovery factor is calculated by multiplying number of articles downloaded with the cost of a single article, if it is purchased directly from the publishers in the "pay-per-view model" or brought through ILL from any document delivery service. According to ALPSP survey, 78% of publishers surveyed offer pay-per-view or individual article purchase options. In the pay-per-view model, the cost of articles varies from publisher to publisher and average cost is $30 per article. Assuming that if the electronic resources were not available through the Consortium, articles downloaded from these resources by the member institutions would have been sourced on inter-library loan / 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).

Based on the no. of downloads from every resource, total amount of Rs. 9,320.99 millions has been recovered as against the total cost incurred of Rs. 781,85 millions with Rs. 8,539.14 millions as the cost of articles downloaded in excess as shown in Figure 16.
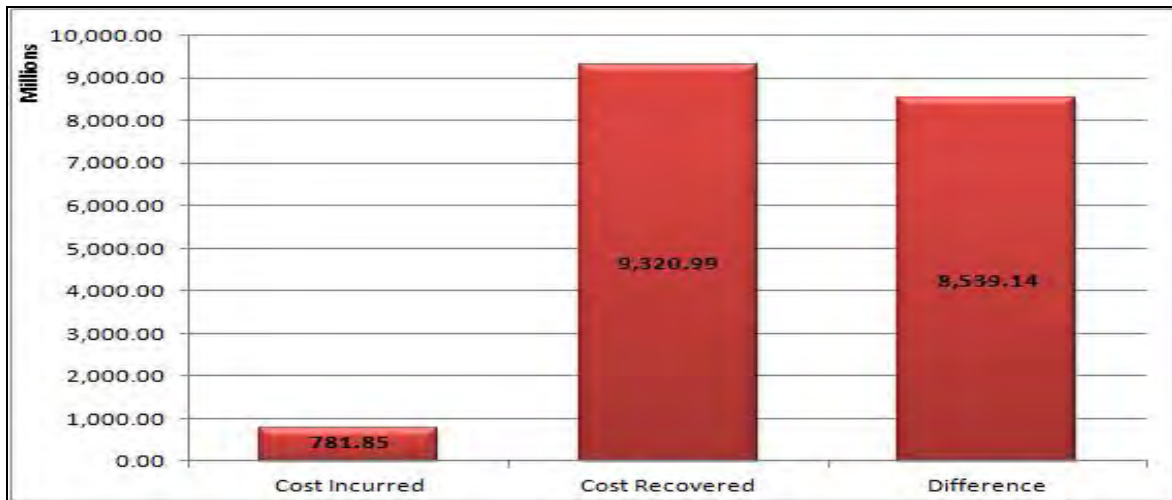
**Fig. 16: Total Cost Recovery during 2011**

The cost recovery factor for each resource is shown in Figure 17, that reflects that the cost recovery factor for Elsevier is highest followed by JSTOR & Springer.
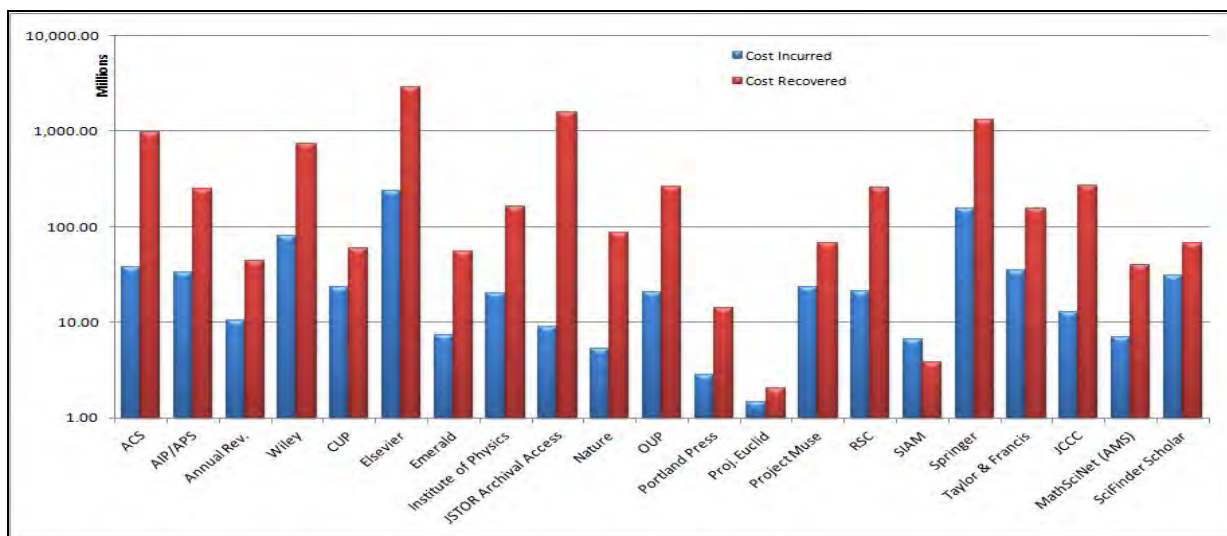


**Fig. 17: Publisher-wise Cost Recovery during 2011**

### 7.7.1.5.3. Average Cost of an Article / Bibliographic Record

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 10 and Figure 10, given below, provide the cost per download of an article. The cost per download is lowest for JSTOR (Rs. 3.97) and highest for SIAM (Rs. 1211.59), whereas the Consortium average is Rs. 57.24.

| Sr. No. | E-Resource | Average cost per Download (in Rs) |
|---|---|---|
| 1. | JSTOR Archival Access | 3.97 |
| 2. | ACS | 27.16 |
| 3. | Nature | 43.35 |
| 4. | OUP | 54.72 |
| 5. | Elsevier | 57.14 |
| 6. | RSC | 58.39 |
| 7. | Blackwell | 77.11 |
| 8. | Institute of Physics | 81.43 |
| 9. | Springer | 83.79 |
| 10. | AIP/APS | 85.00 |
| 11. | Emerald | 92.97 |
| 12. | Portland Press | 140.13 |
| 13. | Taylor & Francis | 156.60 |
| 14. | Annual Rev. | 164.06 |
| 15. | Project Muse | 241.24 |
| 16. | CUP | 277.21 |
| 17. | Project Euclid | 498.88 |
| 18. | SIAM | 1211.59 |
| | **Consortium Average** | **57.24** |

**Table 10: Publisher-wise Average Cost of an Article**

Table 11 given below provides the average cost of a search in bibliographic databases.

| Sr. No. | Bibliographic Database | Average cost per Search (in Rs) |
|---|---|---|
| 1. | JCCC | 11.28 |
| 2. | MathSciNet (AMS) | 40.69 |
| 3. | SciFinder Scholar | 109.66 |
| | **Average cost** | **31.94** |

**Table 11: Average Cost of Bibliographic Database**
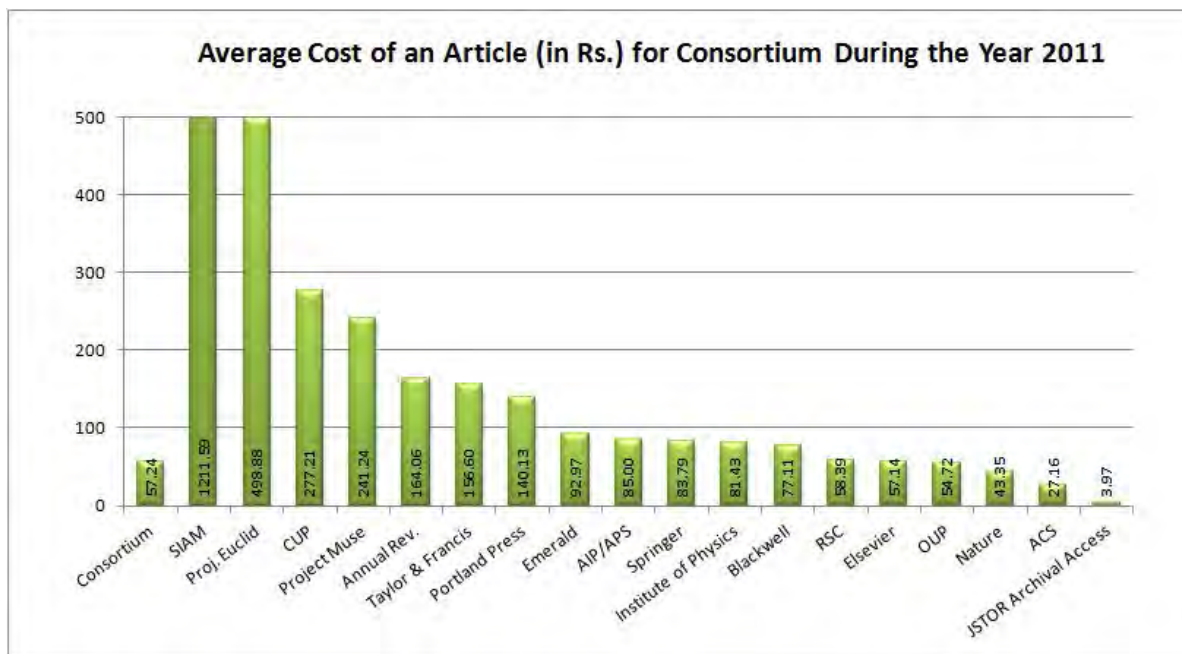
**Fig. 18: Average Cost of an Article (in Rs.) for Consortium during the Year 2011**

Over the last few years, the cost of an article has been reduced due to increase in usage of the resources. The bar chart given in figure 19 plots average cost per article for the e-journals over a period of 5 years, i.e. 2007-2011.
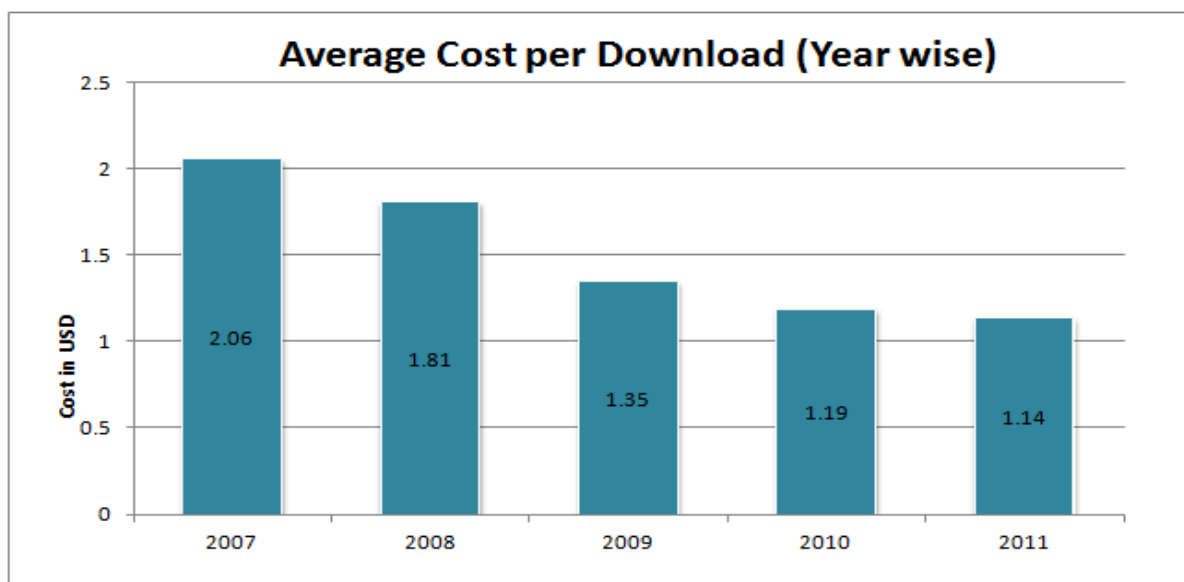


**Fig. 19: Average Cost of per Download (in USD) for Consortium from 2007 to 2011**

## 7.7.1.6. Document Delivery through JCCC

The JCCC@UGC-Infonet is virtual library of journals literature created as a customized e-journal articles access gateway and database solution for UGC-Infonet Digital Library Consortium. JCCC provides article-level access to e-journals subscribed under the Consortium as well as e-journals subscribed by 28 university libraries designated as ILL Centres. It acts as a gateway to search 11,500+ journals including 3244 open access journals, 7600+ journals subscribed by the consortium and 3950+ journals subscribed

by the ILL Centres. The JCCC 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, 6328 ILL requests were received from member universities for the INFLIBNET Centre and 5215 requests were fulfilled. The numbers of requests made by member universities are given in Table 12 below:

| Sr. No. | Institution Name | *DDR-F | +DDR-P | #DDR-UF | Total |
|---|---|---|---|---|---|
| 1 | Berhampur University | 661 | 105 | 11 | 777 |
| 2 | Banasthali University | 565 | 18 | 7 | 590 |
| 3 | Acharya Nagarjuna University | 401 | 134 | 16 | 551 |
| 4 | Yashwantrao Chavan Maharashtra Open University | 461 | 38 | 10 | 509 |
| 5 | Manonmaniam Sundaranar University | 301 | 55 | 4 | 360 |
| 6 | Annamalai University | 257 | 44 | 3 | 304 |
| 7 | Periyar University | 268 | 29 | 5 | 302 |
| 8 | Gulbarga University | 223 | 33 | 3 | 259 |
| 9 | Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya | 164 | 81 | 2 | 247 |
| 10 | Babasaheb Bhimrao Ambedkar University | 92 | 128 | 9 | 229 |
| 11 | Sree Sankaracharya University of Sanskrit | 140 | 63 | 14 | 217 |
| 12 | Dayalbagh Educational Institute | 155 | 44 | 1 | 200 |
| 13 | Mohanlal Sukhadia University | 96 | 76 | 0 | 172 |
| 14 | North Maharashtra University | 91 | 45 | 2 | 138 |
| 15 | Veer Narmad South Gujarat University | 85 | 35 | 0 | 120 |
| 16 | Kannur University | 88 | 18 | 3 | 109 |
| 17 | Mother Teresa Womens University | 17 | 89 | 1 | 107 |
| 18 | Bharati Vidyapeeth | 78 | 14 | 5 | 97 |
| 19 | Barkatullah University | 65 | 31 | 0 | 96 |
| 20 | Hemchandraacharya North Gujarat University | 54 | 38 | 0 | 92 |
| 21 | Other Universities | 953 | 347 | 47 | 1347 |
| | Total | 5215 | 1465 | 143 | 6823 |

*DDR-F: Document Delivery Request – Fulfilled      +DDR-P: Document Delivery Request - Pending
#DDR-UF: Document Delivery Request – Unfulfilled

**Table 12: Document Delivery Requests made by Different Universities**

During the period under report, a total number of 16398 requests were received by the 22 ILL Centres and INFLIBNET from all the member universities and 10112 were fulfilled as per the details given below in Table 13:

| Sl. No. | Institution Name | *DDR-F | +DDR-P | #DDR-UF | Total | % of fulfilled |
|---|---|---|---|---|---|---|
| 1 | Annamalai University | 142 | 145 | 76 | 363 | 39.12 |
| 2 | Assam University | 0 | 40 | 0 | 40 | 0.00 |
| 3 | Banasthali University | 335 | 0 | 69 | 404 | 82.92 |
| 4 | Bangalore University | 0 | 505 | 0 | 505 | 0.00 |
| 5 | Banaras Hindu University | 5 | 5 | 24 | 34 | 14.71 |
| 6 | Jadavpur University | 1027 | 0 | 548 | 1575 | 65.21 |
| 7 | Jawaharlal Nehru University | 0 | 702 | 0 | 702 | 0.00 |
| 8 | Kurukshetra University | 2 | 65 | 0 | 67 | 2.99 |
| 9 | The Maharaja Sayajirao University of Baroda | 178 | 32 | 242 | 452 | 39.38 |
| 10 | Rashrasant Tukadoji Maharaj Nagpur University | 0 | 155 | 0 | 155 | 0.00 |
| 11 | North Eastern Hill University | 130 | 14 | 100 | 244 | 53.28 |
| 12 | Panjab University | 183 | 0 | 7 | 190 | 96.32 |
| 13 | Pondicherry University | 92 | 27 | 109 | 228 | 40.35 |
| 14 | Punjabi University | 101 | 24 | 54 | 179 | 56.42 |
| 15 | Pandit Ravishankar Shukla University | 0 | 92 | 0 | 92 | 0.00 |
| 16 | Tata Institute of Social Sciences | 1517 | 4 | 341 | 1862 | 81.47 |
| 17 | University of Calcutta | 21 | 0 | 462 | 483 | 4.35 |
| 18 | University of Delhi | 1071 | 13 | 76 | 1160 | 92.33 |
| 19 | University of Hyderabad | 13 | 45 | 348 | 406 | 3.20 |
| 20 | University of Madras | 3 | 146 | 1 | 150 | 2.00 |
| 21 | University of Pune | 78 | 0 | 206 | 284 | 27.46 |
| 22 | University of Rajasthan | 0 | 0 | 0 | 0 | 0.00 |
| 23. | INFLIBNET | 5214 | 1467 | 142 | 6823 | 76.42 |
| | **Total** | 10112 | 3481 | 2805 | 16398 | 61.67 |

*DDR-F: Document Delivery Request – Fulfilled      +DDR-P: Document Delivery Request - Pending
#DDR-UF: Document Delivery Request – Unfulfilled

**Table 13: Document Delivery Requests Received by 22 ILL Centres**

## 7.7.2. 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)" is funded by Ministry of Human Resource Development (MHRD) under its National Mission on Education through ICT. The N-LIST was formally launched by Honourable Union Minister of Human

Resource Development Shri Kapil Sibal on 4th May, 2010 at Shastri Bhawan, New Delhi. The Project provides for access to scholarly content to colleges, universities as well as centrally-funded technical institutions through its four distinct components, i.e.  i) UGC-INFONET e-resources to technical institutions (IITs, IISc, IISERs, NITs, etc.); ii) INDEST e-resources to universities; iii) E-resources to 12,000 Govt.-aided / non-aided colleges; and iv) National Monitoring Agency at the INFLIBNET Centre to manage access, monitor, promote and impart training to promote optimal usage of e-resources and for monitoring all activities involved in the process of providing effective and efficient access to e-resources to colleges.
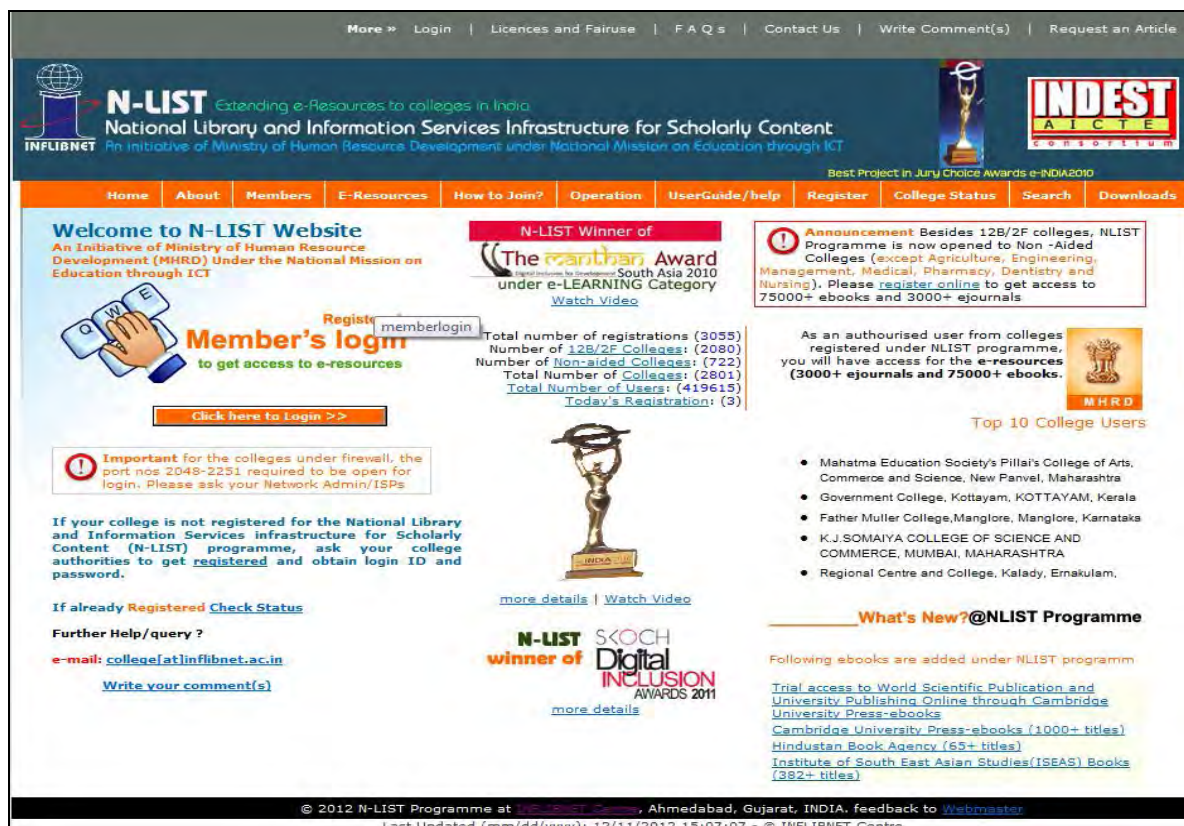


**Fig. 20: NLIST Website**

A separate website is maintained for the N-LIST as shown in Figure 20.

The INDEST-AICTE Consortium and the UGC-INFONET Digital Library Consortium are jointly responsible for activity listed at i) and ii) above. The UGC-INFONET Digital Library Consortium, INFLIBNET Centre, Ahmedabad is responsible for activities listed at iii) and iv) above. The INFLIBNET Centre is also responsible for developing and deploying appropriate software tools and techniques for authenticating authorized users so as to enable them to access e-resources.

The N-LIST programmes subscribes to Web of Science for universities, Annual Reviews (33 journal titles), Nature (27 journal titles), Project Muse (400+ journal titles) and Taylor and Francies (1173 journal titles) for 35 technical institutions including IITs, IISc, IISERs and selected NITs. Besides, more than 3,800 e-journals and 80,000 e-books are subscribed for colleges. The N-LIST programme covers almost all subject disciplines except medicine, pharmacology, engineering and technology for colleges. It covers 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.

The Programme has registered a total number of 2398 colleges as on March 31, 2012 including 2,232 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 2,93,996 faculty members, students and researchers after obtaining list of authorized users from these 2,232 registered colleges. Group login ID and passwords have also been issued to colleges awaiting list of actual users. Efforts are being made to enrol more colleges through advertisement in newspaper as well as by organizing training and orientation programmes through affiliating universities and regional offices of the UGC.

### 7.7.2.1. Governance

The N-LIST is being jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi under the overall guidance of a National Steering Committees of the two Consortia that guide and steer the activities of the N-LIST programme. Decisions on policy issues are taken in the joint Meeting of the NSCs of two Consortia under overall policy directions of the National Mission on Education through ICT. The Joint Committee of the NSC and sub-committees appointed by it take decision on e-resources to be subscribed through various publishers and their accessibility to beneficiary institutions. The INFLIBNET Centre acts as a Monitoring Agency for implementation, monitoring and execution of the entire programme.

Besides National Steering Committees of the two consortia, a Joint Negotiation Committee, with representations from both the Consortia, is constituted for negotiating rates of subscription to e-resources with publishers.

### 7.7.2.2. Beneficiary Institutions

The following three sets of institutions are benefitting from the N-LIST Project:

i)   100 universities covered under Phase I & II of the UGC-INFONET Digital Library Consortium can now access Web of Science.

ii)  IITs, IISc, IISERs and selected NITs (i.e. 35 core members of the INDEST-AICTE Consortium) can now access selected e-resources namely Annual Reviews, Project Muse, Nature and Taylor & Francis.

iii) All Govt.-aided and non-aided colleges (except engineering, management, medical, nursing, pharmacy and dentistry colleges) are eligible to access selected electronic resources including electronic journals, electronic books and bibliographic databases. These resources include more than 3,800 e-journals and 80,000 e-books.

## 7.7.2.3. Increase in Number of Colleges

The NLIST Programme started providing access to e-resources to around 600 colleges in Feb 2010 on trial basis. The total number of colleges enrolled for the programme grew to 703 on May 4, 2010, when it was formally launched by Shri Kapil Sibal, Honourable Union Minister of Human Resource Development. Figure 21 given below reflects consistent increase in number of colleges who joined the NLIST Programme during the Financial Year November 2010 to March 2012. The number of colleges that have joined the NLIST Programme has increased from 1,020 in November 2010 to 2,232 by the end of March 2012.



**Fig. 21: Increase in Registration of Colleges for the Period 2010 – 2011**

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

### 7.7.2.4.1. 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 14 given below.

| Sr. No. | E-resources | Publishing Country | No. of Journals | Backfiles from |
|---|---|---|---|---|
| 1 | American Institute of Physics | USA | 18 | Ten yrs. |
| 2 | American Physical Society | USA | 10 | Ten yrs. |
| 3 | Annual Reviews | USA | 33 | Ten yrs. |
| 4 | Cambridge University Press | UK | 224 | Ten yrs. |
| 5 | Economic and Political Weekly (EPW) | India | 1 | 1966+ |

| 6 | Indian Journals | India | 186 | 2007+ |
|---|---|---|---|---|
| 7 | Institute of Physics | UK | 46 | Vol. 1+ |
| 8 | Oxford University Press | UK | 206 | 1996+ |
| 9 | Royal Society of Chemistry | UK | 29 | Ten yrs. |
| 10 | Wilson Omnifile | USA | 3,075 | 1982+ |
| | **Total** | | **3,828** | |

**Table 14: Full-text Electronic Resources**

### 7.7.2.4.2. 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 1,00,000 as revealed below in the Table 15.

| Sr. No | E-book Name | Available Books | Purchased Books | Access Available |
|---|---|---|---|---|
| 1 | E-brary | 70,000+ | 70,000+ | 70,000+ |
| 2 | Cambridge Books Online | 13,966 | 1,000 | 6000+ |
| 3 | EBSCoHost-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 | 6,577 | 902 | 902 |
| 7 | Springer eBooks | 50,208 | 1,500 | 18,000+ |
| 8 | Taylor Francis eBooks | 40,000+ | 1,000 | 4,500+ |
| 9 | Myilibrary-McGraw Hill | 2,50,000 | 1,124 | 1,124 |
| | **Total** | **4,35,634** | **76,909.00** | **1,05,409** |

**Table 15: Electronic Book**

### 7.7.2.4.3. Bibliographic Database

Bibliographic database contain references to articles published in journals, conference proceedings or chapters in books. Most bibliographic databases contain abstracts of the articles along with links to their full-text. N-LIST subscribes to MathSciNet (American Mathematical Society) that covers reviews of articles in mathematics from 1944 onwards.

### 7.7.2.5. Implementation Methodology

E-resources identified for cross- subscription for universities and technical institutions are being made accessible to the beneficiary institutions 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 no. 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 took the responsibility of authenticating users from registered colleges through proxy server deploying appropriate authorization and authentication mechanism. 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.

After closely examining all the access management technologies, the Centre has decided to implement Shibboleth as the authentication mechanism. However, implementation of Shibboleth is a time-consuming process requiring intensive software configuration, cooperation and collaboration amongst participating institutions, INFLIBNET as Identity Provider (IDP) and publishers as service provider (SP). While the Centre is working towards implementation of Shibboleth, meanwhile EZ-Proxy from OCLC has been implemented for authenticating registered users.

### 7.7.2.6. 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.

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

### 7.7.2.6.1.1. Average Cost of Journals Per College

The N-LIST programme subscribes to a total number of 3,828 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. 10.37 in the year 2010 when only 600 to 1000 colleges were enrolled for the scheme. However, average cost of a single journal per college has come down to Rs. 4.86 when number of colleges increased to 2,232.

### 7.7.2.6.2.2. Average Cost of E-books

Most of the e-books under the N-LIST programme is purchased for all existing 2,232 colleges on "one-time purchase and perpetual access basis" except Ebrary which is subscribed on annual subscription basis. Average cost per book per college varies from Rs. 0.05 in case of Ebrary to Rs. 23.80 in case of

SpringerLink. The average expenditure incurred on each college for purchase of 80,000 e-books is Rs. 96,133 and average cost per college per book is Rs. 1.25.

### 7.7.2.6.2.3. Average cost of E-journal and E-books per User

If the total number of full-time users in one college is taken as 1,000, the average cost per title (e-journals) per user varies from Rs. 0.88 in case of Annual Reviews to Rs. 6.74 in case of AIP/APS for the year 2011 and the average cost per title (e-book) per user varies from 1.30 in case of Hindustan e-book to 35.70 in case of SpringerLink for the year 2011.

### 7.7.2.7. 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.

### 7.7.2.7.1. Publisher wise Usage

Figure 22, given below, shows number of articles downloaded by the users from different publishers during the financial year 2011 - 2012. It can be observed that Royal Society of Chemistry is highly used resource followed by Indian Journals and American Institute of Physics/American Physical Society. The usage of EPW and MathSciNet could not be analysed due to lack of usage data from both the publishers.
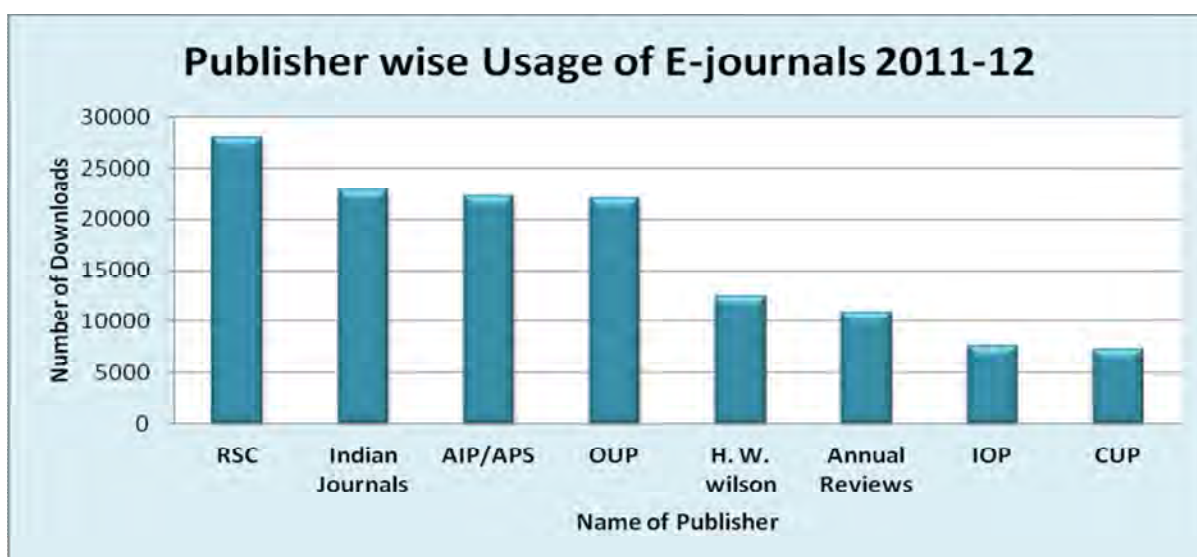


*Usage of AIP/APS for the period October 2010 to Dec 2010 is not available.

**Fig.22: Publisher wise Usage 2011-12**

### 7.7.2.7.2. Month wise Usage

Figure 23 given below reflects month wise usage for the period January 2011 to March 2012.
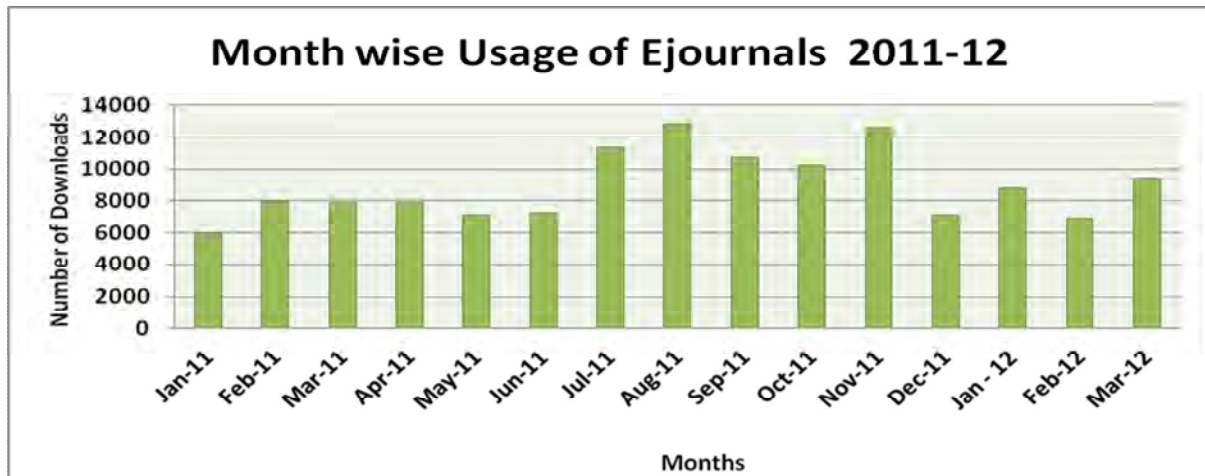
Fig.23: Month wise Usage of E-resources for 2011-12

### 7.7.2.7.3. 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 24 given below shows month wise unique visitors to N-LIST resources. The graph shows average 5200 monthly users from 2,232 member colleges.
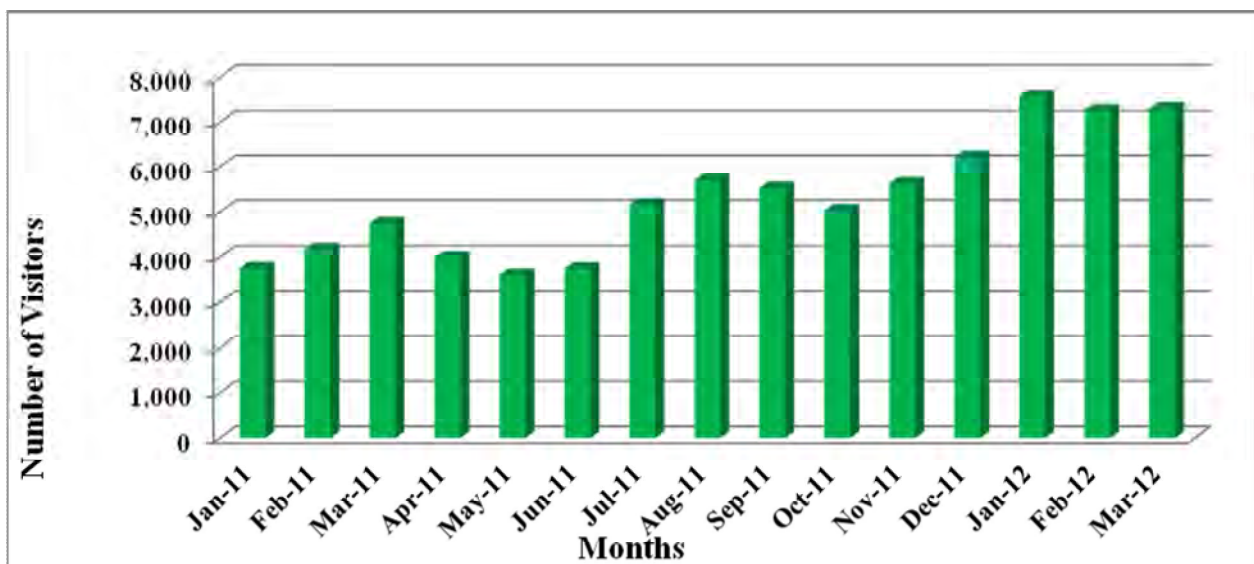

Fig. 24: Month wise Unique Visitors of the N-LIST Programme 2011 – 12

### 7.7.2.7.4. Month wise Pages Viewed

A total number of 38,06,464 pages were viewed by the user in member colleges from the subscribed e-resources. Figure 25 given below depicts month wise increase in number of pages viewed by the users in member colleges.
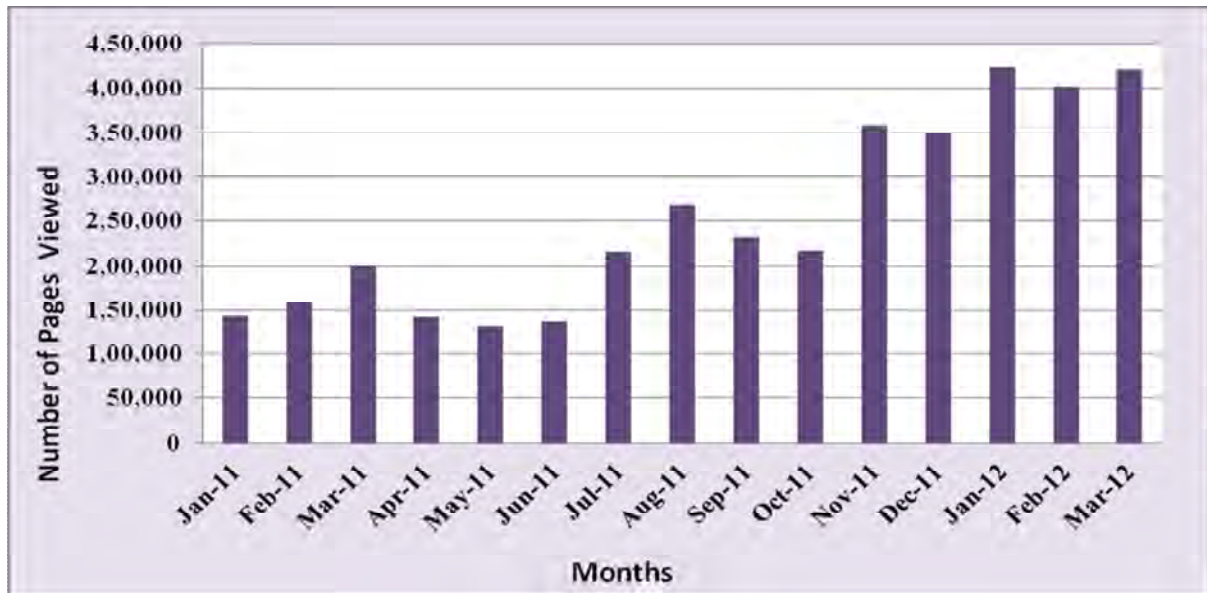
**Fig. 25: Month wise Pages Viewed 2011 -2012**

## 7.7.2.7.5. Number of Visits V/S. Pages Viewed in March 2012

Figure 26 given below reflects daily usage report of Number of visits V/S Pages viewed in month of January 2012. A total number of 1,99,803 pages were viewed by average 209 users daily in month of January 2012.
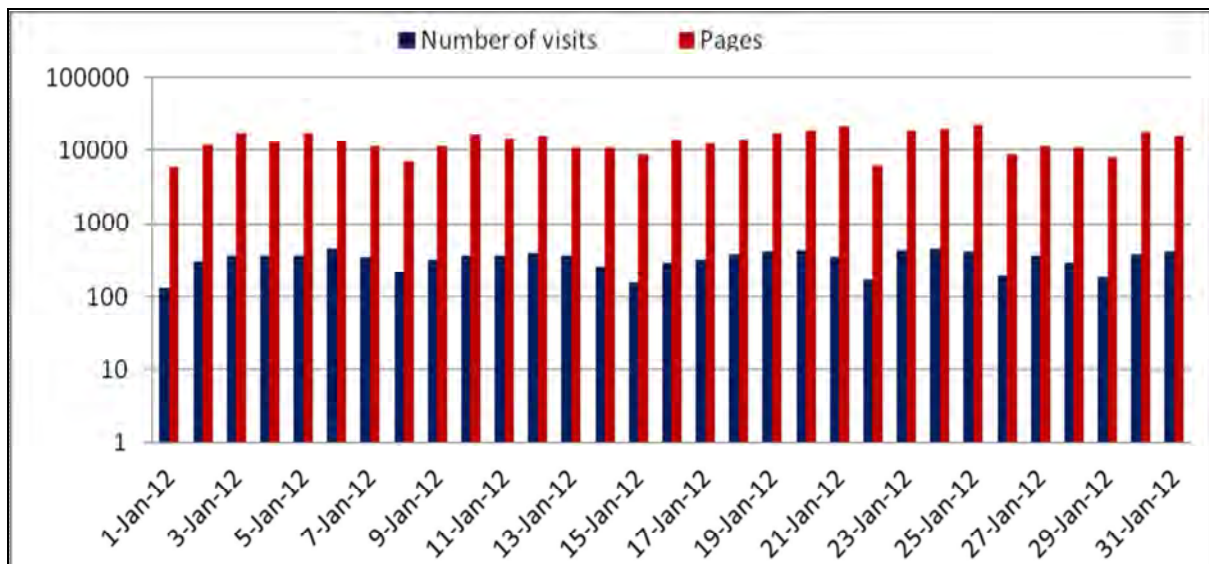

**Fig. 26: Visits vs. Pages Viewed in March 2012**

## 7.7.2.8. 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.

## 7.7.2.8.1. 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 27 and figure 28 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 2011 amounts to Rs. 8.50 crores as against the total expenditure of Rs. 3.16 crores with Rs. 5.34 crores as the cost of articles downloaded in excess.
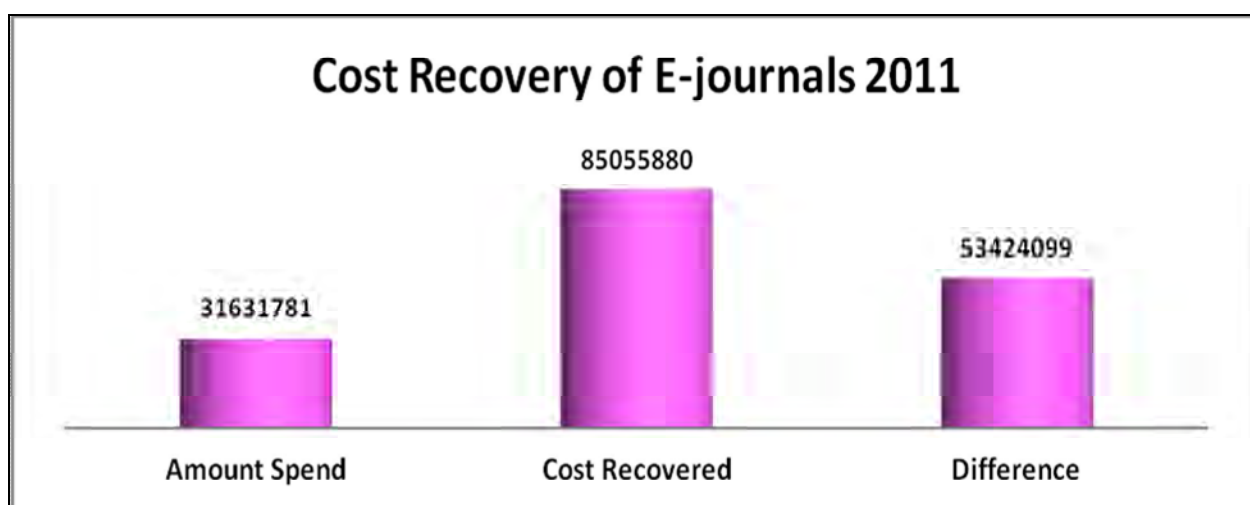
**Fig.27: Cost Recovery Factor of e-Journals Subscribed under the N-LIST Programme for 2011**

The total cost that has been recovered from e-books for the year 2011 amount of Rs. 8.27 crores as against the total expenditure of Rs. 6.80 crores with Rs. 1.47 crores as the cost of chapters downloaded in excess.
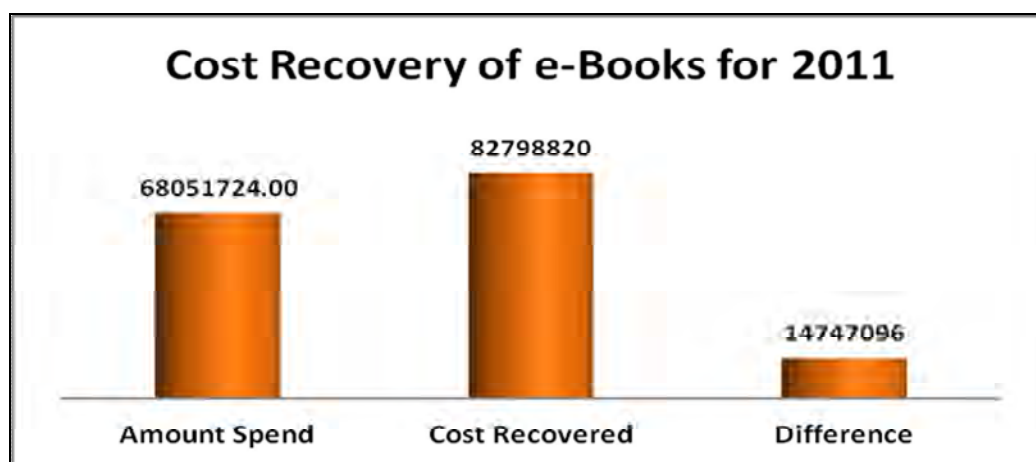
**Fig.28: Cost Recovery Factor of e-Books Subscribed under the N-LIST Programme for 2011**

## 7.7.2.8.2. 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 in the UGC-INFONET Digital Library Consortium) 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 11 subscriptions (on prorate basis) were paid for 2,232 colleges during the financial year under report.

## 7.7.2.8.3. 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 29 given below shows that there is a notional savings of Rs. 5376.17 crores in the year 2010 and 9550.42 crores in the year 2011 considering the fact that the same sets of resources on list price would have costed Rs. 5388.41 crores in 2010 and Rs. 9574.16 crores in 2011 as against Rs. 12.24 crores and Rs. 23.75 crores spent under the N-LIST programme for the year 2010 and 2011 respectively.
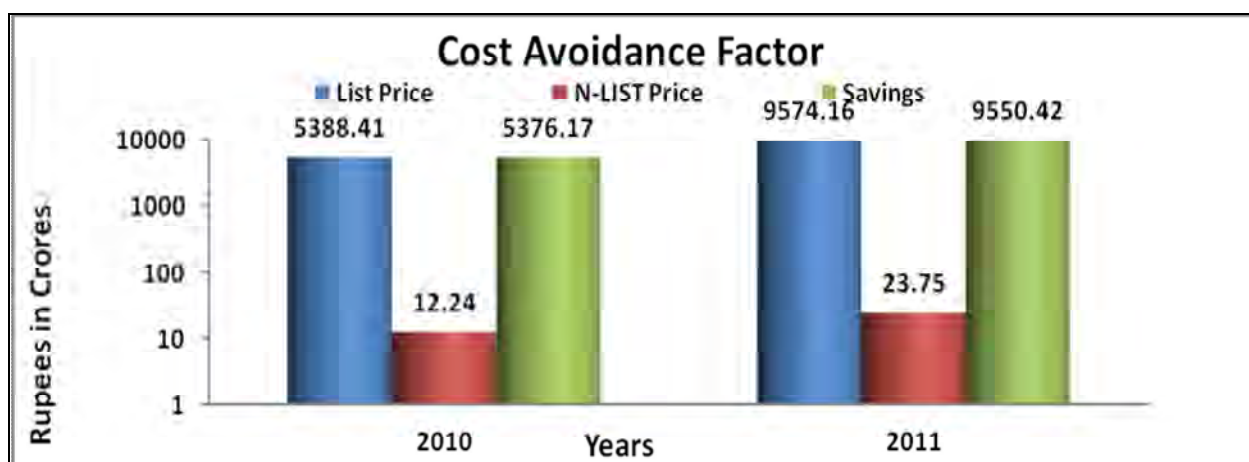


**Fig. 29 Cost Avoidance 2010**

## 7.7.2.8.4. 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%.

## 7.7.2.10. 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 shown in Figure 30.



**Fig. 30: Dr Jagdish Arora, Director and Shri Ashok Kumar Rai, Scientist D (CS), INFLIBNET Centre receiving Skoch Digital Inclusion Award for Technology in Education**

### 7.7.2.11. N-LIST e-resources OPAC

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Dinesh Rayka, Project Officer (CS)*

NLIST e-Resources OPAC is search interface for searching the e-journals and e-books from XML files of resources. This application takes data from MARC21 as source, this data is being converted in to MARCXML. Over this a special routine has been written, which uses Solr and creates index and facets as per the configuration. Moreover, in front-end special API has been used to get images from the web. This interface provides faceted search, free text search and the resources are displayed with cover image.

**Technologies:** Java Script, JQuery, Apache tomcat, Apache Solr, HTML, XML

### 7.8.    UGC-Infonet Connectivity Programme

*Shri Manoj Kumar K, Scientist D (CS)*
*Shri Ramiz Malik, Project Officer (CS)*

The University Grants Commission (UGC), with its responsibility to coordinate and maintain high standards in university education, had launched the UGC INFONET Programme to bring about a qualitative change in the academic infrastructure, especially for higher education. Under this initiative, the UGC facilitates modernization of university campuses with state-of-the-art campus wide networks. Besides, each university gets Internet bandwidth with dedicated IP addresses through a national-level ISP.  Services of a national-level Internet Service Provider (ISP) were being deployed for providing Internet connectivity as well as for resource conceptualization, planning, establishing and maintaining network and communication infrastructure for all universities covered under 12(B) and 2(f) Sections of the UGC Act.

The INFLIBNET, as an IUC of the UGC, was acting as a coordinating agency for monitoring the network and Internet bandwidth provided to the universities under the scheme and liaisons between ISP and universities. The project was being managed by the Central Connectivity and Monitoring Committee (CCMC) constituted by UGC for taking policy decisions.

## 7.8.1. BSNL as ISP for UGC Infonet Connectivity Programme

The Guidelines for UGC-Infonet Connectivity Programme, implemented in the year 2009, provides for selection of ISP with better national network infrastructure. Based on the recommendation of the CCMC, M/s. BSNL was given the responsibility for providing 10 Mbps (1:1) Internet connectivity to 182 Institutions as per the negotiated rates. An MoU was signed between BSNL and the Director, INFLIBNET Centre. The MoU spells out technical specifications, SLA and terms and conditions recommended by CCMC, Negotiation Committee and Technical Committee. The members of CCMC Committee are listed in Appendix XIV.

UGC-INFONET paved the way for the National Knowledge Network (NKN)/NME-ICT project that provides 1 Gbps MPLS connectivity to all universities in India since the Fiber laid for providing 10 Mbps connectivity to universities under UGC INFONET, is also used for 1Gbps connectivity. As per the MoU signed with the BSNL, UGC-Infonet connectivity from a university is withdrawn as soon as a university gets NKN/NME-ICT Internet connectivity. Prior to withdrawing UGC- Infonet connectivity, it is ensured that access to e-resources is enabled on new sets of IP addressed used by the university for NKN/NME-ICT connectivity. During 2011-12, about 165 universities have migrated to NKN/NME-ICT with continued follow up from the Centre. The project stands winded-up as on 31st March 2012. Universities that have not yet migrated to NKN/NME-ICT have been asked to directly contact NKN or BSNL. The list is also sent to MHRD and NIC for including missed out universities in the NKN/NME-ICT scheme.

The universities migrated to theses scheme as shown below:  (Details in Appendix-XV)

| | |
|---|---|
| Total number of universities  Under UGC Infonet * | 182 |
| Universities connected by BSNL under UGC Infonet | 174 |
| Universities migrated to NKN/NME-ICT  in 2010-2011 | 90 |
| Universities Migrated to NKN/NME-ICT on 30 Apr, 2011 | 32 |
| Universities Migrated to NKN/NME-ICT on 30 Jun, 2011 | 11 |
| Universities Migrated to NKN/NME-ICT on 31 Aug, 2011 | 16 |
| Universities Migrated to NKN/NME-ICT on 15 Sep, 2011 | 7 |
| Universities Migrated to NKN/NME-ICT on 31 Oct, 2011 | 3 |
| Universities Migrated to NKN/NME-ICT on 31 Dec, 2011 | 4 |
| Universities Disconnected to NKN/NME-ICT on 31 Mar, 2012 | 14 |

**\*Four Universities are directly connected to NKN**

**Table 16: Status of Universities migrated to NKN/NME-ICT under UGC Infonet Scheme**

Universities which are under the scheme are also given an option to avail additional bandwidth of 10 Mbps on separate leased line from BSNL. The BSNL has agreed to offer the rates negotiated by the Negotiation Committee and approved by the CCMC to individual universities.

## 7.8.2. New Format for the UGC-Infonet Programme

While the UGC-Infonet Programmes stands winded up as on 31st March, 2012 with migration of all universities to NKN/NME-ICT connectivity that provide 1 Gbps connectivity to all universities. However, while NKN will successfully take-up the task of providing greater Internet bandwidth to all universities, it was considered desirable to redefine and reformat the UGC-Infonet Scheme with an aim to assist member universities for inclusive development and to make better use of greater connectivity made available to the universities through NKN.

The CCMC in its meeting held on 25th May 2011 at ISID, New Delhi discussed the proposal regarding augmentation of ICT infrastructure at universities and strongly recommended the modified version of UGC Infonet Scheme. The committee also discussed and deliberated on the roles and responsibilities of universities and the responsibilities of INFLIBNET in order to have inclusive growth of university system.

The new format for UGC-INFONET scheme proposed to the UGC provides for:

⯈ Data Centre at INFLIBNET Centre as well as in universities in different geographical regions for hosting scholarly content from universities including lecture notes, class room lectures, teaching materials, etc.;

⯈ UGC-INFONET Resource Centre at every university consisting of Institutional Repository and PCs to access electronic resource provided through the UGC-Infonet Digital Library Consortium; and

⯈ Video conferencing facility where adequate ICT infrastructure is available.

Detailed proposal with methodology for implementation of the new scheme, budget, responsibilities of universities, INFLIBNET etc. was submitted to the UGC in its XII Plan projections. Overall expenditure on the UGC Infonet modified scheme is estimated to be Rs. 9,219 Lakhs during XII Plan Period.

## 7.9. Bibliometric Studies Group

*Dr. Jagdish Arora, Director*
*Ms. Kruti Trivedi, Scientist B (LS)*

The Centre has set up a Bibliometric Group to study the impact of access to e-resources on research productivity in universities in India. The Group is developing research profiles of every member university. These profiles would include research output of a university, annual and cumulative growth of research publications over a period of few decades, impact of research in terms of citations received, H Index, focused areas of research of a university including its strength and weaknesses, international and national collaborations in different disciplines, correlation between number of articles downloaded from e-resources and number of research articles produced by researchers in a given university. Currently,

Web of Science is being used as a source for primary data. Later, other bibliographic and citations tools would also be used.

## 7.10. Web Services R & D Group

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. 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 Group has especially been set-up for designing innovative web-based interface 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 Entrerprise Server 4.0, Fedora 8.0/9.0
**Open Source Software***:* phpChat, MediaWiki, phpBB, Dspace and WordPress

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

*Shri Ashok Kumar Rai, Scientist D (CS)*

The Centre maintains comprehensive Websites in English and Hindi as shown in figure 31. Several new additions were made to the new version of the Institute's website. A technology called "Real Simple Syndication (RSS)" was introduced to facilitate users and bloggers to harvest recent updates from the Centre's web site. Web 2.0 features and functionalities, including Wiki, Blog, Chat and Discussion Forum, RSS feed, etc. were incorporated in the Web site. The Intranet web site is populated with fillable forms along with internal circulars, committees and their constitutions, Bye Laws, Memorandum of Association, etc. 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.
- ▸▸ Wiki, weblog, RSS feeds and online chat

**Fig. 31: INFLIBNET's Web site in English and Hindi**

The Centre is in the process of developing a new and comprehensive database-driven website that fetches all information from databases.

### 7.10.2. Intranet (http://192.168.1.72/; for INFLIBNET Staff Only)

A separate Intranet website is maintained for the internal staff of the Centre as shown in Figure 32. The web site provides detailed information including:

- ▶▶ Rules and regulations of the Centre;
- ▶▶ MoA;
- ▶▶ All circulars;
- ▶▶ All types of forms in fillable pdf format;
- ▶▶ Committees and their constitutions;
- ▶▶ Leave Information System;
- ▶▶ List of holidays; and
- ▶▶ Presentations.

**Fig.32: INTRANET Website**

## 7.10.3. 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 mentioned below. All the Web 2.0 tools used are open source software. 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/), Library Toolbar, etc.

## 7.10.4. Mobile Website of INFLIBNET Centre

*Shri Abhishek Kumar, Scientist B (CS)*
*Shri Swyamprakash Rajput, Project Assistant (CS)*

Mobile web browsing is one of the popular and widely accepted means of Internet access due to widespread proliferation of iPhones and other mobile devices with surf-friendly interfaces. As a result, it is important to offer a mobile-friendly alternative to current website that can be accessed using BlackBerry, iPhone, Treo, Smart phones, WAP phones etc. The Centre has developed mobile Website for all the services of INFLIBNET Centre as shown in Figure 33.

Features:

▸▸ Details of INFLIBNET's Activity (such as SOUL 2.0, IndCat, NLIST, Shodhganga, etc.)
▸▸ Members list, subscribed e-resoruces of each university and publishers contact details under the UGC-INFONET Digital Consortium, etc.
▸▸ Contact Details for each activities

**Fig. 33: Mobile Website of INFLIBNET Centre**

**Technology used:** PHP and Javascript

## 7.10.5. Development of Inventory Management System

*Shri Abhishek Kumar, Scientist B (CS)*
*Shri Ankur Parikh, Clerk-cum-Typist*
*Shri Swyamprakash Rajput, Project Assistant (CS)*

The Centre has developed an in-house software application to maintain and update inventory for Stores Purchase Section of the Centre. The application entitled 'Inventory Management System' facilitates execution process for procurement of goods through different process such as indent, requisition, open / close tender, etc. This application is under the testing phase.
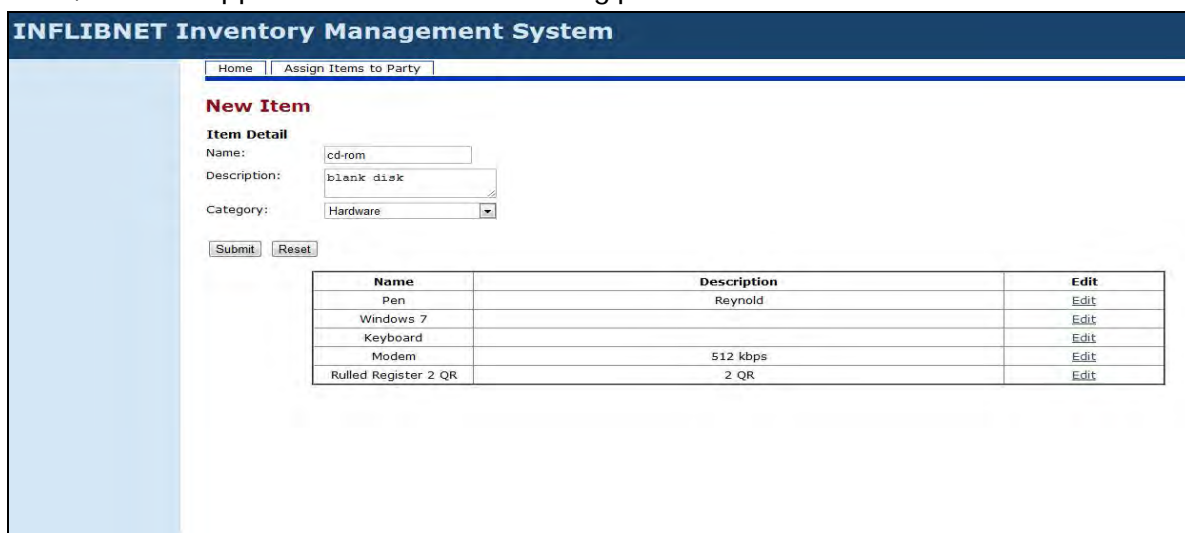


**Fig. 34: Inventory Management System**

**Technology used:** PHP, MYSQL, JAVASCRIPT, AJAX

### 7.10.6. Development of INFLIBNET Employees Credit Society System

*Shri Abhishek Kumar, Scientist B (CS)*
*Mrs.Vaishali Shah, Scientist B (LS)*
*Shri Dinesh Ranjan Pradan, STO-I (LS)*

The employees of the Centre operate Credit Society that provides loan to the employee at lower interest rate. The Centre has developed a web based application for Employees Credit Society as shown in Figure 35. Purpose of the software is to provide better way for handling the loan functions of the credit society. The application facilitates the members to: i) check their loan account and their credit and shares; ii) apply for change in monthly instalment; iii) view the new meeting details and the minutes; iv) apply for the loan; and v) admin can also check the details of loan, credit as well as shares, etc.



**Fig. 35: INFLIBNET Employees Credit Society System**

### 7.11. Shibboleth based Access Management System

*Dr.Jagdish Arora, Director*
*Shri Yatrik Patel, Scientist D (CS)*
*Shri Ashok Rai, Scientist D (CS)*
*Shri Swapnil Patel, Scientist B (CS)*

The INFLIBNET Access Management Federation (INFED) is designed to protect the privacy of users while giving both Service Providers and User Organisations sufficient assurance that requirements such as licenses and acceptable use policies can be enforced. The Shibboleth architecture chosen for the INFED is designed to protect user privacy. However, the measures it provides can only be effective if they are used and respected by User Organisations, Identity Providers and Service Providers.

The federation and its website (parichay.inflibnet.ac.in) has been created with all documentation. Identity provider has been created for NLIST user and has been successfully tested with few publishers. Centre is also planning to shift entire federated access management system to external web hosting provider for better stability and access.

## 7.12. INFOPORT: Subject Gateway to Indian Electronic-Resources (http://infoport.inflibnet.ac.in)

*Shri Yatrik Patel, Scientist D (CS)*
*Shri Swapnil Patel, Scientist B (CS)*
*Ms. Roma Shahdadpuri, Project Officer (LS)*

INFOPORT: A Subject Gateway to Indian Electronic Resources developed by the INFLIBNET Centre was launched by Prof. Mahendra P Lama, Vice Chancellor, Sikkim University during the inaugural session of 8th PLANNER 2012 on 1st March, 2012. The INFOPORT is designed and developed by the INFLIBNET Centre to serve as a comprehensive gateway to all Indian scholarly content. The gateway open-ups the Indian scholarly content scattered over the Internet through an integrated interface that support search, browse and multiple listing. The resources covered in the INFOPORT are organized under ten major categories (000 to 999) according to the Dewey Decimal Classification. Resources in the INFOPORT are also arranged alphabetically by subjects.

The main functional Components 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, a number of features and functionalities of subject gateway were enhanced based on feedback from users, at present the interface is populated with 1500 resources.

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

## 8. Conventions

## 8.1. 8th PLANNER 2012, Sikkim University, March 1–3, 2012

The 8th PLANNER 2012 (Promotion of Library Automation and Networking in North Eastern Region) was organised by the INFLIBNET Centre at Sikkim University, Gangtok from 1st to 3rd March 2012 on the theme "Building Participatory Library Services in Digital Era", in collaboration with the Sikkim University, Gangtok. The main theme of the convention was divided into three sub-themes, namely i) Participatory Web Tools; ii) Academic Libraries in Participatory Era; and iii) Building Infrastructure for Participation. Inaugural Session of the Convention was held at Sikkim Manipal Institute of Medical Sciences on 1st March 2012. All the remaining sessions were held at Hotel Tashi Delake on 2nd and 3rd March 2012. The Convention was attended by 305 delegates and invitees from all over the country as shown in Figure 33.

11 publishers participated in the exhibition arranged as part of the Convention. Out of 95 submissions, 51 papers were selected for presentation and 17 papers were selected for poster presentations.



**Fig.36: Dignitaries on the Dias (from left to right) Dr Tamal Guha, Librarian, Sikkim University, Dr Pawan Gupta, Adjunct Professor and Former Director, Rajasthan University Library System, Prof. Mahendra P Lama, Vice Chancellor, Sikkim University, Dr. Jagdish Arora, Director, INFLIBNET Centre, Prof. A.S. Chandel, North Eastern Hill University and Shri Ashok Kumar Rai, Scientist D (LS), INFLIBNET Centre during Inaugural Session of PLANNER 2012**

## Inaugural Session

Dr. Tamal Kumar Guha, Librarian, Sikkim University and Organizing Secretary for the 8th PLANNER 2012, welcomed the dignitaries on the dais as well as guests and the participants. Dr Jagdish Arora, Director, INFLIBNET Centre deliberated on the activities and services of the INFLIBNET Centre with special reference to North-east India. The Convention was inaugurated by Prof Mahendra P Lama, Vice Chancellor, Sikkim University. Prof. Lama, in the inaugural speech, emphasized on the responsibilities that LIS professionals have to shoulder for collection, organization, dissemination and preservation of conventional as well as non-conventional documents. Dr Pawan Gupta, Adjunct Professor and Former Director, Rajasthan University Library System, Jaipur, in his keynote speech, traced evolution of communication from sign language and spoken words millions of years ago to the printing technology in 1500 and to herald of Internet and web technology. Prof. A.S. Chandel, Department of Library and Information Science, North Eastern Hill University, Shilong, in his address, deliberated on various aspects of the themes and sub-themes of Convention. Prof. Narendra Lahkar, Department of Library and Information Science, Gauhati University, Guwahati was the Rapporteur General of the Convention. Shri Ashok Kumar Rai, Scientist D (LS), INFLIBNET Centre, as Convener of the Convention, presented a warm vote of thanks to invitees, participants, authorities of university and experts on behalf of INFLIBNET Centre.

Prof. Mahendra P Lama, Vice Chancellor, Sikkim University released the printed Proceedings of the convention as well as its CD having 54 full-text papers and 17 abstracts and the Manual for Shodhganga.

Prof. Lama also launched the "INFOPORT: INFLIBNET's Subject Gateway for Indian Electronic-Resources" developed by the INFLIBNET Centre. Dr. Jagdish Arora, Director, INFLIBNET Centre released Souvenir of the Convention. Prof. Lama, on behalf of Sikkim University, signed the MOU on Shodhganga with INFLIBNET Centre.

## Tutorials

Pre-convention tutorials were delivered on "NLIST, Shodhganga" and "SOUL 2.0" on 1st March 2012 for the benefit of participants of the Convention. The tutorials on "NLIST: E-resources for Colleges and Shodhganga: A Reservoir of Indian Theses" was delivered by Shri Manoj Kumar K, Scientist D (CS), INFLIBNET Centre, and "SOUL 2.0" was delivered by Shri Yatrik Patel, Scientist D (CS), INFLIBNET Centre. 150 delegates attended tutorials.

## Technical Sessions

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

| Sr. No | Theme | Topic | Theme Speaker |
|--------|-------|-------|---------------|
| 1 | Participatory Web Tools | Web Scale Discovery Tools | Sh Prem Chand, Librarian, IIAS, Shimla |
| 2 | Academic Libraries in Participatory Era | Academic Libraries in the Participatory Age | Dr B B Sahoo, Assistant Librarian, IIT Delhi |

**Table 17: Invited Experts with their Topics of Presentations**



**Fig.37: Delegates of the 8th PLANNER 2012**

There were 6 technical sessions held during three days wherein 33 papers were presented on various themes as per the details given below:

| Sessions | Theme | Chairperson | Co-chairman/ Rapporteur | No of papers presented |
|---|---|---|---|---|
| Session 1 | Participatory Web Tools | Dr MS Rana | Ms Jyoti Bhatt | 5 |
| Session 2 | Academic Libraries in Participatory Era I | Prof Pravakar Rath | Dr M S Lohar | 5 |
| Session 3 | Academic Libraries in Participatory Era II | Dr Khomdon Singh | Dr Neeraj Kumar | 4 |
| Session 4 | Academic Libraries in Participatory Era III | Dr T Temjen | Dr Lalriamasami | 7 |
| Session 5 | Building Infrastructure for Participation I | Dr Mukesh Saikia | Dr S K Singh | 7 |
| Session 6 | Building Infrastructure for Participation II | Dr (Ms) I Majaw | Shri Prasanta Kumar Deka | 5 |

**Table.18: Chairpersons and Rapporteur of the Sessions**

## Panel Discussions

A panel discussions on the theme of the Convention "Building Participatory Library Services in Digital Era" was organized prior to the concluding session of Convention. Dr. Jagdish Arora, Directror, INFLIBNET Centre, chaired the panel discussion with Dr A R D Prasad, Professor, DRTC, Bangalore, Dr R K Chadha, Joint Secretary, Lok Sabha and Ms. Anju Vyas, Librarian, CWDS, New Delhi were panelist for the session. Dr. ARD Prasad presented a case study on Librarian's Digital Repository set-up at the DRTC, Bangalore and stressed upon the importance of participation for building-up a collaborative collections and services. Dr. R. K. Chadha elaborated on his experience with Members of Parliament and use of ICT in the proceedings of Lok Sabha. Ms. Anju Vyas made an elaborate presentation on her experience of running a listserv called "Bol" for women in India. Dr. Jagdish Arora summed-up the discussions with examples of collaborative tools and techniques used by the INFLIBNET Centre for delivering its services to the users.

## Valedictory Session

The Valedictory Session was chaired by Dr Jagdish Arora, Director, INFLIBNET. Dr Jyoti Prakash Tamang, Registrar, Sikkim University was the Chief Guest of the Valedictory Session. Prof. Narendra Lahkar, Rapporteur General of the Convention presented a detailed report on the proceedings of the convention. Dr. Tamang, in his Valedictory Address, delved upon the changing roles of librarians in the ICT era. Dr T K Guha, Organizing Secretary presented a vote of thanks on behalf of Sikkim University.

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

- To set-up a Knowledge Repository Centre (KRC) in the universities in NE in participatory mode funded by the INFLIBNET Centre.

- To constitute a "Policy Making Body", with proactive intervention of INFLIBNET Centre for drafting standards for various activities of a library including its services, staff, infrastructure, library buildings and other related areas and activities.

- Establish a network of libraries in North Eastern Region for promoting cooperation, collaboration, participation and resources sharing.

- Setting-up of Computer Laboratories equipped with Internet-enabled PCs and other equipment with funds from the INFLIBNET Centre for imparting "hands-on" training programmes to library professionals in creating databases, IRs, content generation, etc. as well as for conducting awareness programmes.

- The INFLIBNET Centre may link-up SOUL software with its Union Catalogue for NE Region (NERCat) that contains the holdings of university libraries in NE Region and facilitate inter-library loan and maintenance of related statistic.

- Keeping in view of the difficulties in deputing working personnel from the universities, colleges and other institutions to the Attachment Training Programme (ATP) of INFLIBNET, minimize the present term of the ATP to maximum of two months and extend the ATP to the students from North-east (who have recently completed their MLIS) from recognized universities of the North East Region.

- Explore avenues to provide financial grants to the college libraries for infrastructural development.

## 8.2. National Conference on ETDs

The National Seminar on Managing Electronic Theses and Dissertations (ETDs) was organized by Central Library, Jawaharlal Nehru University, New Delhi, in collaboration with the INFLIBNET Centre, Ahmedabad on 22$^{nd}$ and 23$^{rd}$ March, 2012 at JNU, New Delhi. This Seminar was first of its kind in the country since it was exclusively devoted to managing electronic theses and dissertations. The Meeting of the INFLIBNET's National Committee on ETDs coincided with this event enabling members to participate in the event as well as to examine and evaluate the progress made and strategies for promoting Shodhganga during the meeting.

The two-day seminar was focused on the potential of electronic theses and dissertations and methodology to manage them. The Seminar provided a national forum for academicians, researchers, practitioners, librarians and policy makers to deliberate upon the issues pertaining to management of electronic theses and dissertations.

**Fig. 38: Dr. Jagdish Arora, Director, INFLIBNET Centre Lighting the Traditional Lamp during inauguration the seminar along with Prof. Sudha Pai, Rector, Jawaharlal Nehru University, Dr R. C. Gaur, University Librarian, and Dr. Dev Swaroop, Joint Secretary, UGC**

The Seminar was inaugurated by Prof.Sudha Pai, Rector, Jawaharlal Nehru University, New Delhi. Prof Pai elaborated on the importance of theses and dissertations as primary source of information and said that a policy needs to be evolved for digitizing and preserving the theses and dissertations for future needs. Dr R. C. Gaur, University Librarian, gave an account of initiatives taken at the JNU for creating an ETD archive. Dr. Dev Swaroop, Joint Secretary, UGC, opined that theses and dissertations should be preserved for posterity and made accessible to the scholarly community. He said that the need of the hour is to formulate policies in order to handle issues of Intellectual Property Rights (IPR), plagiarism and long-term preservation. He promised whole-hearted support of the UGC to Shodhganga initiative taken by the INFLIBNET Centre.

Dr Jagdish Arora, Director INFLIBNET, elaborating on Shodhganga initiative highlighting the benefit of providing access to theses and dissertations in open access mode. Dr Arora informed the delegates that UGC has mandated electronic submission of Ph.D theses vide UGC Regulation 2009 (minimum standards and Procedure for award of M.Phil / Ph.D Degree). Accordingly, all universities are required to submit electronic version of theses into Shodhganga. He mentioned that the universities are also free to set-up their own ETD repositories with help of INFLIBNET Centre. Dr. Arora mentioned that the INFLIBNET Centre, under the Shodhganga initiative, will provide anti-plagiarism software to universities that are signatory to MoU on Shodhganga to facilitate detection of plagiarized material in the theses before its submission to the university.

Dr. Vinod Chachra gave a bird's eye view of initiatives taken at the international level for creating and managing ETDs. He opined that free and open access should be provided to theses and dissertations submitted to the universities across the globe. He explained different steps involved in creating and

managing ETDs. He emphasized that the tools used for creating and managing ETDs should be scalable in nature, the discovery tools need to be enhanced so as to provide greater visibility to the ETDs. He also discussed the features of NDLTD Union Catalogue, phases of its development and OAI/PMH protocols used for harvesting the metadata from member universities. He elaborated on strategies used for promotion, adoption, creation, dissemination and preservation of ETDs by the NDLTD and highlighted the use and importance of VALET, an open source, customizable, web based interface that enables remote users to submit content to FEDORA based digital object repository. Dr. Chachra also observed that more concerted efforts need to be taken to evolve a strategy for long-term preservation of ETD archives. Shri Manoj Kumar K extended a warm vote of thanks to the delegates for turning up in large number as well as dignitaries and experts for their time and support. He also expressed gratitude to the Vice Chancellor, Rector and other authorities of JNU for hosting the National Seminar.

Technical sessions were organised in six different tracks namely i) ETD: Policy Setting and enforcement; ii) Shodhganga: Central Repository of Electronic Theses and Dissertations; iii) Digitization and Digital Archiving of Theses and Dissertations; iv) ETD Systems Selection and Use; v) ETD: Case studies; and vi) Copyright and Other Related Issues concerning ETDs.

### Technical Session - I: ETDs: Policy Setting and Enforcement

**Chairperson**:  Shri Subhash Deshmukh, University Librarian, GGSIP, New Delhi
**Rapporteur**: Dr. Anup Kr. Das, Jawaharlal Nehru University, New Delhi

Dr. Dinesh Katre, in his presentation, highlighted the objectives of National Digital Preservation Programme that includes conducting research and development in digital preservation, develop pilot digital repositories, define digital preservation standards and provide inputs to Department of IT for laying down national policy and strategy for long term preservation. He dwelt on the importance of long-term preservation of scholarly content. He highlighted that not only final output of the theses and dissertations be archived and preserved but the software, raw data, artefacts used for arriving at the final output or findings should also be preserved and made accessible to future researchers so that duplication of efforts and dissipation of energy can be avoided. Dr. Katre elaborated on the initiatives taken at the international level for digital preservation like National Digital Infrastructure and Preservation Programme (NDIIPP, USA), NESTOR (Network of Expertise in Long Term Storage of Digital Resources, Germany; CASPER (Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval, UK), Digital Preservation Europe (DPE), Digital Curation Centre (DCC).

**Fig. 39: Participants of Managing Electronic Theses and Dissertations (ETDs)**

Dr. ARD Prasad, DRTC, Bangalore presented a comparative analysis of metadata schema used by NDLTD, UKETD, Shodhganga of INFLIBNET and demonstrated visible variations in all the three schemas. He mentioned that there is no W3 standard available for ETDs. Dr. Prasad advocated that there should be a single standard metadata schema which should be uniformly followed by the ETDs across the country. He suggested that the metadata schema should be amenable for crosswalk with ETDMS and UKETD-DC and should be exposed to the Web for validation. He opined that the use of standard metadata schema will definitely improve interoperability among the metadata schemas and facilitate conversion and exchange of metadata and enable cross domain metadata harvesting and metadata searches.

**Technical Session – II: Shodhganga: An Opportunity for University Libraries in India**

> **Chairperson**: Dr. Jagdish Arora, Director, INFLIBNET
> **Rapporteur**: Mr. Gulam Rasul, Jawaharlal Nehru University, New Delhi

Mr. Manoj Kumar K, Scientist-D (CS) explained the objectives, coverage and submission workflow of Shodhganga. He explained that Shodhganga is an open access repository of theses and dissertations submitted to Indian universities as per the UGC Notification (2009). It serves as platform for the research scholars to deposit their Ph.D theses and make it accessible to the world wide community of scholars in open access mode. The research scholars, university representatives or research supervisors may submit theses to Shodhganga by registering themselves on Shodhganga. He explained that the universities are required to sign an MOU with INFLIBNET Centre in order to join and participate in Shodhganga programme. This MOU delineate the responsibilities of individual universities and INFLIBNET. By signing the MOU, universities are entitled to get funds for digitizing and archiving their old theses, get access to anti-plagiarism software and deter plagiarism of scholarly content. Shri Manoj Kumar also described a complementary initiative called Shodhgangotri that provides for submission of electronic version of approved synopsis submitted to the universities for registering the students in Ph.D programmes. He

clarified that Shodhgangotri intends to highlight the trends and directions of research being conducted across the country, thereby prevent duplication of research. Once the Ph.D degree is awarded and the full-text thesis is submitted to Shodhganga, a link to the full-text would be provided from Shodhgangotri to Shodhganga.

**Technical Session – III: Digitization and Digital Archiving of Theses and Dissertations**

      **Chairperson**: Prof. Karmeshu, Dean, SCSS, JNU, New Delhi
      **Rapporteur**: Mr. Amar Singh Yadav, Jawaharlal Nehru University, New Delhi

Prof. Uma Kanjilal made a detailed presentation on IGNOU's institutional repository called "E-Gyankosh", web casting facility for Gyandarshan I & II and Gyanvani. She mentioned that the institutional repository was started in 2005 to store, index, preserve, distribute, share the distance learning resources. It provides access to 95% of the self instructional material produced by the university, metadata links to 1600+ video programmes available on You Tube and has more than 1.5 million registered users. The repository gets 400 visitors daily. She mentioned that the flexi-learn programme of the university enables users to access free and open courses. The students can register and explore the courses, their content, and coverage and thus gain knowledge and skills in any course of their interest. She mentioned that the University follows OER (open Educational Resources) policy like other organizations at international level such as MIT (http://web.mit.edu/education/), Open University (http://openlearn.open.ac.uk/), COL,UNESCO,OLI-CMU, Rice University, etc. Prof. Kanjilal discussed the barriers to OER movement across educational institutions, issues of copyright, file formats of learning resources, standard metadata and their interoperability.

Dr. T. S. Kumbar, Librarian, IIT, Gandhinagar highlighted various ETD initiatives taken at national and international levels including IndCat (Theses Database), Vidhyanidhi, DELNET, NASSDOC, openMed@NIC, Librarian's Digital Library, Open Index initiative, NDLTD, DART, Diva, PQDT Open, EThOS, Theses Canada, ADT, dissertations Online, NARCIS, etc. He also elaborated on ETD discovery tools like DOAR- Directory of open Access Institutional Repositories, OAIster, worldCat, scientificcommons.org, BASE: Bielefeld Academic Search Engine, CASSIR: Cross Archive Search Service for Institutional Repositories. Dr. Kumbar identified 48 indicators based on the survey conducted among library professionals in the country, which could be used for setting up and maintaining ETDs. He also ranked ETDs according to the ratings given by experts in the library field based on these indicators.

Dr. S. Majumdar elaborated upon the potential of ETDs and initiatives taken at national and international levels such as Vidhyanidhi, Indian Institute of Science, Indian Council of Social Sciences, NDLTD, ADT, ETD of Brazalian Universities, DART-Europe, Diva, EthOS (UK), National ETD Portal of South Africa, RCAAP, Theses Canada, WorldCAT, etc. He dwelt upon the initiatives taken by the University of Delhi in creating an ETD archive from retrospect including 13,000 M. Phil and 15,000 Ph.D theses. He mentioned that the project was undertaken by the University in two phases. In the first phase, all the theses that were submitted from inception of the university up to 1979 were digitized and in the second phase all the theses submitted from 1980 to 2003 were digitized. Dr. Majumdar expressed concern over many

challenging issues related to setting up and maintenance of ETDs like quality control over content, adoption of standard metadata schema, file formats, long-term preservation strategy, standards for providing bibliographical references, etc. He expressed that the user community need to be sensitized to the practice of anti-plagiarism, fair use and intellectual property rights.

## Technical Session – IV: ETD Systems Selection and Use

**Chairperson**: Dr. H . K Kaul, Director, DELNET
**Rapporteur**: Mr. Somesh, Jawaharlal Nehru University, New Delhi

Dr ARD Prasad dwelt upon OAI-ORE (Open Archives Initiative-Object Resuse and Exchange) implementation to DSpace repositories. OAI-ORE defines standards for the description and exchange of aggregations of web resources. (http://www.openarchives.org/ ore). He mentioned that this implementation will enable INFLIBNET to collect digital objects from repositories across the country.

Dr. Aditya Tripathi from BHU, Varanasi emphasized that the issues of metadata standards, file formats, character representation, object sustainability and digital rights management, intellectual property rights need to be attended to more seriously.

Mr. Filbert Minj presented a case study of ETD archive of IISc, Bangalore and explained the process of creating and maintenance of an ETD repository. He mentioned that institutional repository of IISC e-prints has a collection of 33,375 publications and ETD archive set up using DSpace in 2005, has 1,627 theses. Mr. Minj illustrated the work flow of ETD repository, user registration, their validation, classification of theses based on the classification scheme followed by Dissertation Abstract International, automatic metadata assignment, validation of metadata and full-text quality assessment by library staff, mail notification to the students during submission, approval and archiving process. The ETD is accessible to all the registered users of IISc.

## Technical Session V - ETD : Case Studies

**Chairperson**: Dr. R. Samyuktha, University Librarian, Pondicherry University
**Rapporteur**: Ms. L. Kaini, Jawaharlal Nehru University, New Delhi

Case studies on ETDs were presented by different experts in the fifth session. Dr. C.K. Ramaiah elaborated on the impact of open access on research activities. He emphasized that open access supports knowledge sharing across scientific fields and accelerates multi disciplinary breakthroughs in research. Open access benefits researchers, educational institutions, business, employment and public at large. He highlighted ETD initiatives taken at national and international levels and discussed origin, creation and distribution methods of theses and dissertations in USA which started in 1861. He also mentioned that open access increases the impact of research done and leads to better return on investment. He further highlighted that open access ETDs also get increased citations.

Dr. Manorama Tripathi gave an account of what Jawaharlal Nehru University intends to do for setting up an ETD archive. The University has signed an MOU with INFLIBNET and has decided to digitize old theses and dissertations and put them in an open access repository for global community to access, browse and use. The Central Library has a collection of more than 18,000 theses and dissertations and more than 800 theses are submitted every year to the University for Award of degree. The Academic Council of the University has also mandated (as per the UGC Regulation 2009 for Minimum Standards and Procedure for Award of M.Phil/Ph.D Degree) the electronic submission of theses by the research scholars. After the award of degree, the theses will be uploaded in institutional repository of the university and submitted to Shodhganga. In case, the supervisor or the students want that their these be withheld for public view, an embargo period may be placed on theses.

Dr. Narendra Kumar dwelt on the electronic library project of Delhi University. The project initiated in 2006 aims at scanning and digitizing 18,000 Ph.D theses available in Delhi University Library System (DULS), more than 60,000 books available in Delhi University Library system and affiliate colleges. The project also aims at creating a digital library for differently-abled users. He discussed methods of selection of vendors for digitisation and scanning purpose and different steps followed in scanning and uploading the theses and dissertations. He mentioned that the electronic library of DULS runs on DSpace and uses Dublin core schema for bibliographical details. The repository is accessible on Intranet and the university has to take a decision to make it accessible on Internet for the benefit global academic community. DULS has already digitized 26,20,000 pages of 8,864 theses submitted during 1980-2003. The library receives 15-20 users daily on average for accessing ETDs.

Dr. Nabi Hasan gave a detailed account of ETD and institutional repositories of NATRS (National Agricultural Research System) comprising of 26,178 full time research staff, 49 national institutes, 6 national bureaus, 25 project directorates, 17 national research centres, 589 Krishi Vigyan Kendras (KVS), 46 state agricultural universities, 5 central and 4 deemed universities. Nehru Library of Haryana Agricultural University, Hissar has developed an ETD, known as Krisha Prabha, (http://hau.ernet.in/) as a distributed and cooperative model. This library serves as a nodal agency and is responsible for data capturing, editing, indexing, organizing and aggregating content for digital library. Krishiprabha provides access to full-text electronic content of doctoral theses submitted to 51 state agricultural universities, deemed and central universities. Krishiprabha project was started in 2007 with an aim to digitize and archive all agricultural doctoral dissertations submitted in Indian universities from 2000 onwards. The rationale behind setting up this repository is to provide worldwide visibility to the Indian agricultural research output, avoid duplication of research, discourage and prevent plagiarism in the research activities. These resources are publicly accessible with OCLC partnership.

Copyright and other related issues concerning ETDs was discussed in details by various invited experts. Mr. Vakul Sharma from Supreme Court spoke on the concept of copyright, neighboring rights, performer's rights, multimedia rights, moral rights ,which also include right of paternity and right of integrity, convergence rights. He emphasized that technology is a double edged sword as it offers new means to fix the original expression in a tangible form and at the same time supports copyright infringement. The Internet activities of caching, browsing, mirroring, scanning, downloading, uploading,

file swapping, tantamount to copyright infringement. The laws and rules on 'fair use' are not very clearly defined and are a little ambiguous.

## Technical Session – VI: Copyright and other Related Issues concerning ETDs

**Chairperson**: Dr. Usha Mujoo Munshi, Head, Library, IIPA, New Delhi
**Rapporteur**: Mr. Tariq, Jawaharlal Nehru University, New Delhi

The copyright amendment Bill 2010 (still pending before Parliament), in order to protect copyright of authors has proposed various provisions like technical protection, digital rights management. Mr.Vakul advocated that copyright bill should allow libraries, archives, museums to convert copyright protected material into digital format for preservation and future use. Furthermore, the libraries should be allowed to facilitate use of copyright material for academic and educational purposes. He also highlighted that digital copying is a civil and criminal offence according to Information Technology Act 2000. If a person downloads copies of a document without seeking permission of the owner, he is liable to pay a compensatory amount of Rs 5 crores to the owner and may be sentenced to imprisonment for 3 years. Mr. Sharma reiterated that libraries and guides/supervisors should use anti-plagiarism software to prevent substantial copying and other fraudulent practices, higher educational institutions must develop a code of conduct for students, researchers and guides. Mr. Sharma also mentioned that substantial copying from material which are out of copyright should also be seen as copyright infringement. The user community should be sensitized towards the provisions of the Copyright Act and Information Technology Act.

Dr. R. Samyuktha, University Librarian, Pondicherry University presented a case study of institutional repository for archiving theses and dissertations that was set up in Pondicherry University. She gave an account of automation and digital library activities of University Library. She mentioned that the institutional repository was set up in 2010 using DSpace. The digitization of the theses was done in-house as well as outsourced. The library has already digitized and uploaded 574 theses which are in English, French, Sanskrit, Hindi and Tamil. She mentioned that these theses were sent to Shodhganga @INFLIBNET. The University of Pondicherry has already signed an MOU with INFLIBNET Centre. The University also subscribes to 'TURNITIN' which is an anti-plagiarism software. The research scholars are supposed to subject their theses to TURNITIN software before submitting them for award of degree. The University provides No-due certificate based on TURNITIN Document ID.

## Panel Discussions: Preservation and Access of Theses and Dissertations: Issues and Challenges

On the concluding day, panel discussions were held with various experts expressing their suggestions to embark up on the ETD projects in universities, issues and challenges for preservation and access to ETDs and strategy for enrolling more universities and other institutions into Shodhganga project. Discussions were also held regarding incentives to universities and research scholars for submission of their theses in the Shodhganga. The panel was chaired by Dr. Jagdish Arora and panellists were Dr. R K Chadha, Joint Scretary, Lok Sabha, Dr. Samyuktha Ravi, University Librarian, Pondicherry University, Dr. Nutan Johry,

Dy. Director, NASSDOC New Delhi, Shri N V Sathyanarayana, M/s. Informatics India Pvt, Dr. S K Arora, University Librarian, IGNOU, New Delhi Ltd, and Dr. Debal C Kar, University Librarian, Dr. BRA University, Delhi.

Dr. R Samyuktha made a presentation on issues and challenges of ETD Initiatives at University of Pondicherry. Dr. Nutan Johry elaborated on the role of ICSSR in preservation and access to theses and dissertations. Mr. N V Sathyanarayana, Informatics India Pvt. Ltd expressed his views on marketing of Indian theses and dissertations. Dr. S K Arora, University Librarian, IGNOU, New Delhi made a presentation on preservation and access to theses and dissertations at IGNOU. Dr. Debal C Kar, University Librarian, DR BRA University, Delhi presented initiatives taken at the BRA University regarding electronic submission of theses and dissertations.

## Valedictory Session and Recommendations

Valedictory Session of the National Seminar was held on 23rd March 2012. Dr. Manorama Tripathi, Rapporteur General of the Seminar presented a report on various sessions held during the Seminar. In her report, Dr. Tripathi presented a gist of lectures delivered and discussions held in various sessions. In his concluding remarks, Dr. Jagdish Arora, Director, INFLIBNET Centre informed the participants about various decisions taken in the meeting of the National Committee on ETD for Shodhganga. He informed that the Committee discussed about the grant to be given for digitization of theses and dissertations as well as for setting up of ETD laboratories in universities signatory to the Shodhganga initiative. The Valedictory Address was delivered by Dr. R.K. Chadha, Joint Secretary, Lok Sabha, New Delhi. Dr. Chadha, in his address, congratulated the JNU Library and INFLIBNET Centre for organizing the National Seminar of ETD. He also suggested that such seminars should be organized in all parts of the country to generate greater awareness regarding open access to electronic theses and dissertations. Dr. Ramesh C. Gaur, University Librarian, JNU extended a warm vote of thanks to his staff, authorities and INFLIBNET Centre for help and support in organization of this Seminar. He informed the participants that all the presentations of the Seminar will be made available from the Web sites of JNU Library and INFLIBNET.

Major recommendations made during the seminar were as follows:

⏩ Open access of electronic theses and dissertations will benefit both university and researchers. As such, universities should be encouraged to set-up their own ETD repositories to preserve as well as expose their intellectual properties to the world-wide community.

⏩ The role of INFLIBNET in ETD initiative, especially Shodhganga, was well appreciated. It was proposed that all university libraries in India should join Shodhganga as soon as possible.

⏩ Availability of theses and dissertations in electronic format will be a deterrent to plagiarism and will improve quality of research work in India.

⏩ The INFLIBNET Centre should take-up initiatives to develop a catalogue of all theses and dissertations in India in lines with the NDLTD union catalogue.

- ⧫ INFLIBNET Centre should collaborate with international programmes such as National Digital Library for Electronic Theses and Dissertations (NDLTD) and should take initiatives to organised international conference on ETD with their association so as to promote sharing of expertise for mutual benefits.

- ⧫ Training programme on digitization, creation of metadata, setting-up and maintenance of digital repository of theses and dissertations should be organized for library professionals working and user awareness program on ETD for academic administrators as well as for research scholars should be organised in various geographical regions of the country.

- ⧫ Embargo period, in case of theses, should be restricted to minimum, not more than six months in any case.

- ⧫ The UGC should provide special grant during XII Five Year Plan for digitization and digital archiving of theses and dissertations.

- ⧫ Research scholars should get incentives for online submission of his / her theses.

- ⧫ Digital watermarking and other restrictive technologies should be used to restrict direct copying of theses.

- ⧫ The UGC may formulate National IPR policy for ETDs.

- ⧫ National seminar should be organised at least once in two years by inviting experts working on ETD projects.

- ⧫ The INFLIBNET Centre is requested to contact other public access ETDs in India such as ETDs maintained by CISR, ICSSR, Vidhyanidhi, etc. for association and hosting of content in Shodhganga after signing an MoU so that single platform can help researchers to search/browse and use content easily.

## 8.3. Conference on Strategies for Managing Libraries in the Future, IIM, Ahmedabad December, 7- 9, 2011

The Conference on Strategies for Managing Libraries in the Future was jointly organized by Vikram Sarabhai Library, Indian Institute of Management, Ahmedabad and INFLIBNET during December, 7-9, 2011. The Conference coincided with the Golden Jubilee Year Celebrations of Indian Institute of Management, Ahmedabad. Themes and subthemes of the conference included i) collections development; ii) users needs and services; iii) marketing and communication; iv) leadership and human resource management; v) emerging technologies; and vi) other related issues and challenges.

About 180 delegates from leading institutes, universities, research institutes and corporates participated in the conference. Some of the organisations represented in the conference were IIMs, IITs, ISRO, PRL, ISB, IISER, Jadavpur University, NIRMA University, Ravishankar Shukla University, TCS, Torrent Pharma,

ILFS, Tech Mahindra, ONGC, etc. The conference included 45 papers presentations, 6 invited talks, and 17 exhibition stalls to displayed library-related information products and services. The conference was inaugurated by Prof. Samir Barua, Director, IIM Ahmedabad and the valedictory address was delivered by Dr. Jagdish Arora, Director, INFLIBNET Centre.

## 9. Central Facilities

### 9.1. Library

The INFLIBNET Centre has a small, specialized library having unique collection on library and information science, computer, communication and information technology. The library is fully computerized using SOUL 2.0 integrated library management software. The entire print & e-book collection of the library is available online through the Web OPAC (http://indcat.inflibnet.ac.in/soulopac/main.aspx) as shown in Figure 40.

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.



**Fig. 40: Library and WebOPAC**

### 9.1.1. Library Services

The library provides following services to its users:

- ▸▸ı Reference Service
- ▸▸ı Document Delivery Service
- ▸▸ı Current Awareness Service

- ⏭ Inter Library Loan Service
- ⏭ Electronic Information Service
- ⏭ Reprographic Service

## 9.1.2. 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 monitory agency for the UGC INFONET Digital Library Consortium and NLIST programme has access to all e-journals, e-books and bibliographic database subscribed under these two programmes.

## 9.1.3. Institutional Repository @ INFLIBNET (http://ir.inflibnet.ac.in/)

The IR @ INFLBNET is set-up to host full-text of research publications of technical staff as well as other publications of the Centre using Dspace, open source digital library software developed by the Massachusetts Institute of Technology in collaboration with HP. The papers published in CALIBER and PLANNER proceedings have been uploaded in to the IR @ INFLIBNET in PDF format. The Institutional Repository also includes course materials, newspaper clippings, annual reports, etc.  The repository has 1,589 full-text articles.

## 9.1.4. 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

## 9.1.5. E-Journals Archival Library (Print Version)

The Centre has received issues of 286 journal titles from different publishers. During the year under report, issues of 100 journals each were received from the Taylor and Francis, Blackwell, Oxford University Press, Cambridge University Press, Institute of Physics and Royal Society of Chemistry.

## 9.2. Computer Network & Infrastructure

The Centre maintains basic infrastructural facilities such as Library, Computer Laboratories and Servers to support its essential activities. Important infrastructural facilities available at the Centre are as follows:

### 9.2.1. 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 and Laptops in 2011-2012 to the users with a total of 104 PCs and 19 laptops.

The Centre has procured two IBM x3500 1U servers for email service, mailing list and web services and two IBM x3660 5U servers for R&D development and Intranet in 2007-2008. In addition, one HP Blade Server Enclosure C3000 was procured from HP along with four ProLiant BL460c servers in 2009. Due to the increase in services and data storage as well as hosting mirror sites at BSNL, are a blade server with six blades is being procured.

### 9.2.2. Campus-LAN and Internet Connectivity

The Centre provides most of its services through Internet 365 days a year, seven days a week and 24 hours a day. The network infrastructure is one of the most important components to provide efficient and effective services to the remote and local academic users. The Centre has up-upgraded network infrastructure that connects all laboratories and offices of the Centre with 10/100 Mbps structured cabling, Rack, I/Os, Jack panels, etc. As on now, the network is running over managed L2 switches.

The facility for Internet connectivity was established at the Centre in the year 1993-94 using dial-up connectivity of the ERNET. The Internet connectivity was enhanced to 2 Mbps in the beginning of XI Plan Period under the UGC INFONET Connectivity Programme through ERNET. The Internet connectivity was further enhanced to 10 Mbps with switching over of Internet Service Provider from ERNET to BSNL in 2010. As on date, the Centre has migrated to NKN, and is availing high-speed connectivity on 1 Gbps backbone connected to NKN network. The Centre has retained the BSNL connectivity with a reduced bandwidth of 2 Mbps for standby and load balancing. Dedicated firewall appliance is purchased with subscription to anti-virus, anti-spam, 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 Cyberoam 50i UTM. User level antivirus protection is also enabled for end user protection.

The national union databases are being made accessible through this dedicated leased line. On an average, the INFLIBNET Web site and the national union databases attract more than 15,000 visitors per month.

### 9.2.3. SOUL Training Laboratory

The Centre has developed an integrated library software called SOUL and has set up a SOUL Training Laboratory which is equipped with 30 multimedia PCs, scanners, projection system and other equipment. All PCs in the Laboratory are connected to the Centre's LAN which, in turn, is connected to the Internet. All the PCs and network equipment are backed-up with Uninterrupted Power Supply (UPS). The facility is also use by the students of IGNOU and Gujarat University for their Master degree programme in Library and Information Science.

### 9.2.4. Networking Laboratory

The Centre has well-equipped Networking Laboratory with category-2/3 switches, Internet enabled multimedia PCs and other networking equipment. The facility is being used for providing training to the participants.

### 9.2.5. SOUL R&D Laboratory

The Centre has a well-equipped SOUL R&D Laboratory equipped with Internet-enabled multimedia PCs and other computing equipment. The facility is used for providing training to the internal staff members as well as to the student trainees who take up their summer training in the Centre.

### 9.2.6. SOUL Support Centre

The SOUL software, developed by the Centre, has more than 2,577 installations. A facility has been created to provide support to the users of the SOUL Software with dedicated telephone line, fax and manpower special devoted for this purpose.

### 9.2.7. Lecture / Seminar Hall

The Centre has a Lecture Hall equipped with projection system, Public Addressing System and an interactive White Board. The PCs in the Lecture Hall is connected to the Internet to facilitate access to e-resource on the web.

### 9.2.8. Walk-in User's Facilities for Researchers

The Centre has 10 Internet-enabled PCs dedicated to students, scholars and faculty from neighbouring institutions for accessing e-resources subscribed under the UGC-INFONET Digital Library Consortium. The license agreements signed with the publishers of e-resources provides for access to e-resources for "walk-in" users. More than 720 users availed this facility during 2011-2012 with an average of 60 users per month.

### 10. 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 institutions in the country. The copies of the newsletters and annual reports in PDF format are available on the INFLIBNET website at (http://www.inflibnet.ac.in/publication/). Copies of annual reports, papers published in PLANNER and CALIBER proceedings are also available through the Institutional Repository (IR) in PDF format. The course materials of various training programmes and workshops, lecture notes, presentations, and

newspaper clippings are also made available in the IR of the Centre at (http://ir.inflibnet.ac.in). The repository has 1589 full-text articles as on 31st March 2012 for access.

During the period under report, the Centre published two conference proceedings, a user guide and manual on Shodhganga, ten articles in journals and conferences proceedings, two articles in newsletters by the staff of the Centre. A list of the publications is given below:

## 10.1    Conference Proceedings

i)   Building Participatory Library Services in Digital Era: Proceedings of the 8th PLANNER 2012 (eds. Jagdish Arora, et al). Ahmedabad, INFLIBNET, 2012. 460 p.

ii)  Shodhganga: Digital Repository of Indian Electronic Theses and Dissertations: User Guide and Tutorials (comp. Manoj Kumar K and Jagdish Arora ). Ahmedabad: INFLIBNET Centre, 2012. 68p.

## 10.2.   Articles in Newsletters

i)   Arora, Jagdish. Digital library initiative at the INFLIBNET Centre, Ahmedabad. INFLIBNET Newsletter, 18(3&4), 16-25, 2011.

ii)  Arora, Jagdish and Kumar, Abhishek. E-learning content development and hosting. INFLIBNET Newsletter, 19(1), 26-, 2012.

## 10.3.   Papers Published in Journals and Conference Proceedings

i)   Arora, Jagdish and Chandrakar, Rajesh. Digital library initiatives at the INFLIBNET Centre. In: Digital Library and Knowledge Management (ed. Antony Jose). Delhi, Macmillan Publishers, India, p. 136 – 147.2012.

ii)  Chauhan, Suresh K., Nanda, Silima and Arora, Jagdish. Globalization of higher education: An Indian Perspective. In: Transnational Distance Learning and Building New Markets for Universities (ed. Robert Hogan). Hershey, PA, IGI Global, p. 229-246, 2012.

iii) Kaushik, Anna and Arora, Jagdish. Blogs on marketing library services. DESIDOC Journal of Library & Information Technology, 32 (2), p. 186-192, 2012.

iv)  Manoj Kumar, K, Chand, Nirmal and Gandhi, Savita. Ontological mapping for semantic search in ShodhGanga: A national repository of electronic theses and dissertations (ETDs). **In**: Building Participatory Library Services in Digital Era / Proceedings of 8th Convention PLANNER 2012 organized by INFLIBNET Centre, Ahmedabad and Sikkim University, Gangtok, March 1-3, 2012 (eds. Jagdish Arora [et.al.]). Ahmedabad: INFLIBNET Centre, p. 423-430, 2012.

v)   Mansuri, Imaran, Patel, Swapnil and Vaghela, Divyakant. VuFind: An emerging open source discovery tool. **In**: Building Participatory Library Services in Digital Era / Proceedings of 8th Convention PLANNER 2012 organized by INFLIBNET Centre, Ahmedabad and Sikkim University,

Gangtok, March 1-3, 2012 (eds. Jagdish Arora [et.al.]). Ahmedabad, INFLIBNET Centre, p. 117-124, 2012.

vi) Patel, Yatrik, Bajaj, Vishal and Chauhan, Krunal. Implication of REST based design pattern over semantic web. **In**: Building Participatory Library Services in Digital Era / Proceedings of 8th Convention PLANNER 2012 organized by INFLIBNET Centre, Ahmedabad and Sikkim University, Gangtok, March 1-3, 2012 (eds. Jagdish Arora [et.al.]). Ahmedabad, INFLIBNET Centre, p. 58-64, 2012.

vii) Pradhan, Pallav and Chandrakar, Rajesh. Indian LIS literature in international journals with specific reference to SSCI Database: a bibliometric study. Read Periodicals at http://readperiodicals.com/201111/2546388791.html.

viii) Kumar, Abhishek. INFLIBNET: Services in the era of copy-cataloguing. **In**: proceeding of the seminar on Networking Public Libraries in Gujarat held at M. J. Library, Ahmedabad in association with the ADINET and M. J. Library on 11th February, p. 23-26, 2012. (eds. Bharucha, Rodha and Bansidhar, Bhatt)

ix) Srivastava, Pallavi. Tools for marketing library & information product and services in information technology environment. **In**: Proceedings of the Seminar on Innovative Challenges in Information Services: Changing Paradigm for Sustenance of Library and Information Centers in Digital Era organized by Department of Library & Information Science, University of Jammu, Jammu. p. 423-428, 2012

## 11. Awards, Honours and Distinctions

The following awards, honours and distinctions were bestowed on the Centre's project and staff member of the INFLIBNET Centre during the period under report:

⯈ **Skoch Digital Inclusion Award 2011 to the INFLIBNET Centre for N-LIST Project**

The INFLIBNET Centre received 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 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.

⯈ **e-INDIA Jury Choice Award to the INFLIBNET Centre for Shodhganga Project**

The INFLIBNET Centre received eINDIA Jury Choice Award for "Best ICT Enabled Higher Education Institute of the Year" for the project Shodhganga on Digital Learning Category. The award was presented by Smt. Smriti Zubin Irani, Member of Parliament (Rajya Sabha) & Popular Actress to Shri Manoj Kumar K, Scientist D (CS), INFLIBNET Centre, Ahmedabad on 15 December 2011 during eINDIA event at Gandhinagar, Gujarat.

➤ **Dr. Jagdish Arora**

Dr. Jagdish Arora, Director, INFLIBNET Centre was awarded the SATKAL Life Time Achievement Award 2011 for his significant contribution and unique achievements in his professional career. He received the award from Mrs. Shailaja Chandra, Chairperson, Delhi Library Board on 27th August 2011 during the Seminar on Future of Libraries and SATKAL Annual Function 2011 at the Indira Gandhi National Centre for the Arts, New Delhi.

As Chairman of the Committee constituted by the UGC for setting-up of Media Centres in selected universities, Dr. Arora visited Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh in February 2012, Magadh University, Bodh Gaya in November, 2011 and Dibrugarh University, Dibrugarh, Assam in March 2012.

He was nominated as Member of the Committee for Content development at PG level by the UGC for the initiative named as E-PG Pathshala. Moreover, He was also designated as National Coordinator (Technical) for this Project. Dr. Arora was involved in a number of working groups, committees and sub-committees set-up by the Planning Commission, Ministry of Human Resource Development (MHRD) and ICSSR for formulation of XII Five Year Plan Period 2012-2017.

Dr. Arora continued to serve as a Member of the Research Council of NISCAIR, CSIR as well as a Member of the National Steering Committees and Negotiation Committees of the INDEST-AICTE Consortium, CSIR E-Journal Consortium and DELCON. He is a Member of the Library Advisory Committee of the Oxford University Press and Cambridge University Press for a period of 3 years i.e. 2010 to 2013.

He is a Member of the Editorial Board of Indian Science Abstracts, Annals of Library and Information Studies and Document Delivery and ILL Services.

## 12. 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 the training at the INFLIBNET, the Centre selects limited student trainees. Five students of BE from BITS, one student of M.Sc (IT) from Sardar Patel University and three students of BE from Gujarat Technical University had undergone practical training at the INFLIBNET Centre during the year under report. Facilities are also extended to the library science students of IGNOU as well as Gujarat University, Ahmedabad to avail library internship at the Centre.

## 13. Project @ INFLIBNET Centre

### 13.1. E-PG Pathshala

The MHRD, under its National Mission on Education through ICT (NME-ICT) has allocated funds to the UGC for development of e-content in 77 subjects at postgraduate level. The content and its quality being the key component of education system, it is proposed to create high quality, curriculum-based, interactive content in different subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages under this initiative named E-PG

Pathshala. E-content so developed would be available in open access through a Learning Management System (LMS) set-up at the INFLIBNET Centre as well as through Sakshat Portal.

The INFLIBNET Centre has been assigned the responsibility for technical and administrative coordination of the programme. The Centre is in the process of deploying Web designers and instructional designers to interact with domain experts including content writers, paper coordinators and subject coordinators. The Centre would essentially be responsible for incorporating multimedia features using storyboard provided by the domain experts.

Steps have been taken to deploy national coordinators and subject coordinators for each subject. The subject coordinators, in turn, would deploy paper coordinators and content writers for creation of content in their respective subjects.

As on 31st March, 2012 the Centre has configured A Tutor, an open source Learning Management System to host the e-content created in the process. Moreover, E-PG Pathshala Management System is also being developed to manage the administrative flow of the work. Online interface was developed for inviting "Expression of Interest" from subject coordinators in about 35 subjects that were identified for content development in the first phase of activity.

## 13.2. 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)", being jointly executed by the UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi, provides for access to scholarly content to colleges, universities as well as centrally-funded technical institutions. The programme is described in detail at 7.7.2.

## 13.3. 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 the month of May 2011. The Centre has set-up a dedicated server for the UGC web site 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:

▶▶ **Maulana Azad National Fellowship for Minority Students**: Online applications were invited for this scheme for the years 2010-2011 and 2011-12 soon after the release of new interface. 4,292 applications were received and processed for the year 2010-11 and 4,270 applications have been received for the year 2011-2012.

▶▶ **Rajiv Gandhi National Fellowship for SC/ST Candidates**: 7,361 candidates have applied for the Scholarship for the year 2011-2012. Online applications received at INFLIBNET Centre have been processed for further necessary action by the UGC.

▶▶ **Post Graduate Scholarships for Professional Courses for SC/ST Candidates**: Online applications were invited for this scheme for the years 2010-2011 and 2011-12. 3,265 and 1,942 applications were received and processed for the year 2010-11 and year 2011-2012 respectively.

- **Post Doctoral Fellowship to SC/ST Candidates**: 660 candidates have applied for the Scholarship for the year 2010-2011. Online applications received at INFLIBNET Centre have been processed for further necessary action by the UGC.

- **Indira Gandhi Scholarship for Single Girl Child**: 2,872 candidates have applied for the Scholarship for the year 2011-2013. Online applications received at INFLIBNET Centre have been processed for further necessary action by the UGC.

- **P G Merit Scholarship for University Rank Holder**: 881 candidates have applied for the Scholarship for the year 2011-2013. Online applications received at INFLIBNET Centre have been processed for further necessary action by the UGC.

- **Post Doctoral Fellowship to Women Candidates**: 2,363 candidates have applied for the Scholarship for the year 2011-2012.

- **Research Awards for the Teachers**: To be started.

- **Post Doctoral Fellowship For Indian Scholars in United States**: To be started.

- **Emeritus Fellowship**: To be started.

## 13.4. Internet Connectivity to the UGC Head Office and NET Bureau in Delhi

The UGC has given the task of providing and monitoring Internet connectivity to the UGC Head Office as well as to its two offices vis-a-vis UGC Branch Office at 35 Ferozeshah Road, New Delhi and NET Bureau Office at South Campus of University of Delhi, Benito Juarez Marg, New Delhi to the INFLIBNET Centre. The INFLIBNET Centre, in turn, has provided the connectivity to the UGC Head Office as well as its other two Offices in Delhi through BSNL/MTNL at the discounted rates that were being charged for providing Internet connectivity to universities under the UGC Infonet connectivity Programme.

The Connectivity has been provided in time bond manner on 24*7 basis for seamless Internet access. The INFLIBNET Centre is also providing technical support for maintaining these three Internet Connections provided through BSNL/MTNL and also evaluating network requirement of the UGC for upgrading infrastructure for better services. Centre has recruited two technical staff under this project for maintenance and support.

## 14. Other Notable Activities and Events

## 14.1. Independence Day Celebration

The INFLIBNET staff and their families celebrated 65th Independence Day of the Nation at the Centre on 15th August 2011. Dr. Jagdish Arora, Director of the Centre hoisted the national flag and recalled the efforts and valuable contributions made by the freedom fighter for the Nation. He also highlighted major achievement of the INFLIBNET Centre to higher education community in India.

## 14.2. INFLIBNET Celebrated Navratri Garba

The INFLIBNET Centre celebrated Garba festival with great enthusiasm. The Garba night was organized for its employees and their families on 4 October 2011. The function started with the 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 (Figure 41). Dr Jagdish Arora, Director, INFLIBNET Centre distributed the prizes to the best dance performer, best-dressed person and children. The function concluded with the ceremonial dinner.



**Fig. 41: Participants performing Garba during the Navaratri Celebration at the INFLIBNET Centre**

## 14.3.  Republic Day Celebration

The INFLIBNET Centre celebrated 63th Republic Day on Thursday, 26th January 2012. 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 were organized for staff and their children during the event and prizes were distributed to the winners of the games.

**Fig. 42. Republic Day**

## 15. Distinguished Visitors

The following dignitaries visited the INFLIBNET Centre, during the Period under report:

- ⏩ Prof. H. P. Dikshit, Chairman, Institute of Environmental Studies, Environmental Planning and Coordination Organization, Government of Madhya Pradesh, Bhopal

- ⏩ Prof. A. K. Bakshi, Vice-Chancellor, Uttar Pradesh Rajarshi Tandon, Open University, Shantipuram (Sector-F), Phaphamau, Allahabad

- ⏩ Prof. R. K. Kale, Vice Chancellor, Central University of Gujarat, Gandhinagar

- ⏩ Col. S. K. Sharma, Special Officer, Central University of Gujarat, Gandhinagar

- ⏩ Dr. Muttayya Koganuramath, Librarian, Tata Institute of Social Sciences, Mumbai

- ⏩ Dr. R. K. Chadha, Joint Secretary, Lok sabha, New Delhi

- ⏩ Dr. T. S. Kumbar, Librarian, IIT Gandhinagar

- ⏩ Dr. H. Anilkumar, Librarian, Indian Institute of Management, Ahmedabad

- ⏩ Prof. E. V. Ramakrishnan, Professor and Dean, School of Language, Literature and Culture Studies, Central University of Gujarat, Gandhinagar

- ⏩ Prof. V G Talawar ,Vice Chancellor ,University of Mysore, Mysore

- ⏩ Prof. Asoke Kumar Sen, Dean, Dept. of Physics, Assam University, Silchar

- Prof. H A Ranganath, Director, National Assessment & Accreditation Council (NAAC), Bengaluru

- Mr. G Mahesh, Coordinator, CSIR E-journal Consortium, NISCAIR, New Delhi

- Prof. G P Agarwal, Chairman, Advisory Committee for the Library, Indian Institute of Technology Delhi, New Delhi

- Prof. J P Gupta, Vice-Chancellor, Sharda University, Greater Noida

## 16. Right to Information (RTI) Act

In order to promote transparency and accountability in the working of public authority and to empower the citizens to secure access to information under control of each public authority, the Government of India has brought out "the Right to Information Act, 2005". 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.

## 17. Financial Status

The Audited Annual Accounts of INFLIBNET Centre for the financial year 2011-2012 is given in the Appendix XVI.

# Building Committee
### (As on 31-03-2012)

**Prof. S K Khanna**
Chairman, Governing Board, INFLIBNET Centre
Sharda University
Plot No. 32-34, Knowledge Park III,
Greater Noida

**Dr. Parimal H Trivedi (till 25/06/2012)**
**Shri Adesh Pal (Member) (from 01/09/2012)**
Vice-Chancellor
Gujarat University
Navrangpura
Ahmedabad

**Dr. Jagdish Arora      (Member)**
Director
INFLIBNET Centre
Ahmedabad

**Dr. R K Chadha      (Member)**
Joint Secretary, Lok Sabha
New Delhi

**Shri Y P Pathak (Member)**
Dy. Exe. Engineer – R&B
Sr. Civil /Executive Engineer
 (Capital Project)
PWD, Gandhinagar

**Prof. H. A. Ranganath   (Member)**
Director, NAAC
2/4, "Aragini Bhavana"
Dr. Rajkumar Road, P.O. Box 1075
Rajajinagar
Bengaluru

**Prof. M N Patel (Member)**
Principal
L D Engineering College
Ahmedabad

**Mr. Rajeev Kathpalia (Member)**
Vastu-Shilpa Consultants
"Sangath" Thaltej Road
Ahmedabad

**Ashok Kumar Rai (Member)**
Scientist-D (CS)
INFLIBNET Centre
Ahmedabad

**Shri Harish Chandra (Convener)**
Admn. Officer (PA&F)
INFLIBNET Centre
Ahmedabad

## Governing Council
### (As on 31-03-2012)

**Ex.Officio Members**

**Nominated Members**

**Prof. Ved Prakash**
**President**
**INFLIBNET Society & Chairman (Actg.), &**
**Vice-Chairman**
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

**Prof. S S Mantha**
**Chairman**
All India Council for Technical Education
7th Floor, Chanderlok Building
Janpath, New Delhi

**Dr. Samir K Brahmachari**
**Director General**
C S I R, Anusandhan Bhawan
2, Rafi Marg, New Delhi

**Prof. S K Thorat**
**Chairman**
Indian Council of Social Science Research
(Ministry of HRD)
JNU Institutional Area,
Aruna Asaf Ali Marg , New Delhi

**Dr. Swapan Chakravorty**
**Director**
National Library
Belvedr, Kolkatta

**Dr. Jagdish Arora**
**Director**
INFLIBNET Centre,
Ahmedabad

**Prof. B P Sanjay**
Vice-Chancellor
Central University of Tamil Nadu
C/o Collectorate Annexe
Tiruvarur

**Dr. V G Talawar**
**Vice-Chancellor**
University of Mysore
Crawford Market
Mysore

**Dr. T R Kem**
**Director**
Consortium for Educational Commun.
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 31-03-2012)**

## Ex.Officio

**Prof. S K Khanna**
**Chairman, GB, INFLIBNET**
Sharda University
Plot No. 32-34, Knowledge Park III,
Greater Noida

**Prof. Ved Prakash**
**Vice-Chairman**
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

**Dr. (Ms.) Niloufer Adil Kazmi (till 22/10/2012)**
**Dr. Akhilesh Gupta (from 02/11/2012)**
**Secretary**
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

**Dr. Parimal Trivedi (till 25/06/2012)**
**Dr. Adesh Pal (from 01/09/2012)**
**Vice Chancellor**
Gujarat University
Navrangpura
Ahmedabad

**Dr. Kuncheria P Isaac**
**Member Secretary**
All India Council for Technical Education (AICTE)
7th Floor, Chanderlok Building
Janpath, New Delhi

**Dr. Jagdish Arora (Member Secretary)**
**Director**
**INFLIBNET Centre**
Near. Gujarat University Guest House
Navrangpura
Ahmedabad

## Nominated Members:

**Prof. R K Kale**
**Vice-Chancellor**
Central University of Gujarat
Sector-30, Gandhinagar

**Prof. N Prabhu Dev**
**Vice-Chancellor**
Bangalore University
Bengaluru

**Prof. Jai Rup Singh**
**Vice chancellor**
Central University of Punjab
Bathinda

**Dr. R K Chadha**
Joint Secretary, Lok Sabha
New Delhi
(Eminent Librarian)

**Prof. J P Gupta**
**Vice-Chancellor**
Sharda University
Plot No. 32-34, Knowledge Park III,
Greater Noida
(Computer Expert)

**Shri R S Mani**
**Scientist-F (Operations and Routing Unit)**
Dept. of Information Technology
Ministry of Communication and IT
National Informatics Centre
Lodhi Road, New Delhi
(Communication Expert)

**Prof. H A Ranganath**
**Director**
National Assessment and Accreditation Council
Bengaluru.

# Finance Committee

**(As on 31.03.2012)**

## Ex.Officio Members

**Prof. S K Khanna**
**Chairman**
Sharda University
Plot No. 32-34, Knowledge Park III,
Greater Noida

**Dr. (Ms.) Niloufer Adil Kazmi (till 22/10/2012)**
**Dr. Akhilesh Gupta (from 02/11/2012)**
**Secretary**
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

**Shri A. K. Dogra (till 24th October,2012)**
**Shri S. C. Meena (from 25th October,2012)**
**Jt.Secretary/FA**
University Grants Commission
Bahadurshah Zafar Marg
New Delhi

**Dr. Dev Swarup (till 23/05/2012)**
**Dr. Renu Batra (from 24/05/2012)**
**Jt. Secretary (IUC/MC)**
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi

**Dr. Jagdish Arora**
**Director**
INFLIBNET Centre
Navrangpura, Ahmedabad

**Shri Ashok Kumar Rai**
**Scientist-D (CS)**
INFLIBNET Centre, Ahmedabad

**Shri Harish Chandra (Non-Member Secretary)**
**Admn. Officer (PA&F)**
INFLIBNET Centre
Ahmedabad

## Nominated Member:

**Prof. J P Gupta**
**Vice-Chancellor**
Sharda University
Plot No. 32-34, Knowledge Park III,
Greater Noida
(Computer Expert)

## Technical, Administrative and Supporting Staff
### (As on 31st March, 2012)

| Sr. No. | Name of the employee | Designation |
|---|---|---|
| **Scientific & Technical Staff** | | |
| 1. | Dr. Jagdish Arora | Director |
| 2. | Shri Manoj Kumar K. | Scientist-D (CS) |
| 3. | Shri Ashok Kumar Rai | Scientist-D (CS) |
| 4. | Shri Yatrik R. Patel | Scientist-D (CS) |
| 5. | Shri H. G. Hosamani | Scientist-C (LS) |
| 6. | Shri Rajesh Chandrakar | Scientist-B (LS) |
| 7. | Shri Abhishek Kumar | Scientist-B (CS) |
| 8. | Shri Swapnil P. Patel | Scientist-B (CS) |
| 9. | Shri Divyakant Vaghela | Scientist-B (CS) |
| 10. | Shri Gaurav Prakash | Scientist-B (CS) |
| 11. | Mrs. Vaishali A. Shah | Scientist-B (LS) |
| 12. | Ms. Kruti J. Trivedi | Scientist-B (LS) |
| 13. | Shri Kannan P. | Scientist-B (LS) |
| 14. | Shri Dinesh Ranjan Pradhan | S.T.O – I (LS) |
| 15. | Mrs. Hema Cholin | STA-I (LS) |
| 16. | Shri Saroja Kumar Panda | STA- I (LS) |
| 17. | Shri Dharmeshkumar A. Shah | STA-I (CS) |
| 18. | Shri Mohit Kumar | STA-I (CS) |
| 19. | Shri Vijaykumar M Shrimali | STA-I (CS) |
| **Administrative & Support Staff** | | |
| 1. | Shri Harish Chandra | Admn. Officer (PA&F) |
| 2. | Shri Ashok P. Achtani | Section Officer (P) (till 09/08/2012) |
| 3. | Shri B. M. Mali | Account Consultant |
| 4. | Shri Sanjay R. Shah | Office Assistant-II |
| 5. | Shri S. F. Vanikar | Office Assistant-II |
| 6. | Mrs. S. M. Munshi | Personal Assistant |
| 7. | Mrs. Yamini J. Dave | Clerk-cum- Typist |
| 8. | Mrs. R. B. Pendharkar | Clerk-cum- Typist |
| 9. | Shri Ankur B. Parikh | Clerk-cum- Typist |
| 10. | Shri Shyam T. Yadav | Helper |
| 11. | Shri Vinod B. Dantani | Helper |

| 12. | Shri Bakul M. Parmar | Lab Attendant |
|---|---|---|
| **Contractual Staff in Computer Science** | | |
| 1. | Shri. Ramiz Malik | Project Officer (CS) |
| 2. | Shri Bhavesh Patel | Project Officer (CS) |
| 3. | Ms. Urmila Patel | Project Officer (CS)  (till 31/07/2012) |
| 4. | Shri Swayamprakash Rajput | Project Assistant (CS) |
| 5. | Shri Jaynil Gandhi | Project Assistant (CS) |
| 4. | Shri Mayur Gohel | SOUL Technical Assistant (CS) |
| 7. | Ms. Nabila Shaikh | SOUL Technical Assistant (CS) |
| **Contractual Staff in Library Science** | | |
| 1. | Ms. Roma Shahdadpuri | Project Officer (LS) |
| 2. | Mrs. Priti Sharma | Project Officer (LS) |
| 3. | Shri Imran Mansuri | Project Officer (LS)  (till 07/06/2012) |
| 4. | Mrs. Pallavi | Project Officer (LS) |
| 5. | Ms. Archita Muchhadia | Project Assistant (LS) |
| 6. | Ms. Seema Chavda | Project Assistant  (LS) |
| 7. | Mr. Abhijeet Tiwari | Project Assistant (LS)  (till 12/10/2012) |
| 8. | Shri Kamlesh Vegad | Technical Assistant (LS) |

**No. of Records Contributed by the Participating Universities to the Books and Theses Databases of the Centre**

| Sr. No. | Name of the University | Books Records | Theses Records |
|---|---|---|---|
| 1 | Acharya N G Ranga Agricultural University, Nagarjunanagar, AP | | 260 |
| 2 | Acharya Nagarjuna University, Guntur, Andhra Pradesh | 32,794 | 857 |
| 3 | Ahmedabad University, Ahmedabad, Gujarat | 22,341 | |
| 4 | Alagppa University, Karaikudi, Tamil Nadu | 43,635 | 172 |
| 5 | Aligarh Muslim University, Aligarh, Uttar Pradesh | 1,62,157 | 9,564 |
| 6 | All India Institute of Medicine Sciences, New Delhi | | 208 |
| 7 | Amrita Vishwa Vidyapeetham, Amritnagar, Coimbatore | | 1 |
| 8 | Andhra Pradesh University of Law, Visakhapatnam, Andhra Pradesh | 1,604 | |
| 9 | Andhra University, Vishakhapattanam, Andhra Pradesh | 2,16,049 | 6,388 |
| 10 | Anna University, Chennai, Tamil Nadu | 98,640 | 1,380 |
| 11 | Annamalai University, Annamalai Nagar, Tamil Nadu | 4,73,810 | 2,238 |
| 12 | Assam Agricultural University, Jorhat, Assam | | 84 |
| 13 | Assam University, Silchar, Assam | 32,668 | 134 |
| 14 | Avinashilingam University for Women, Coimbatore, Tamil Nadu | | 118 |
| 15 | Avinashlingam Institute for Home Science, Coimbatore, Tamil Nadu | 82,452 | |
| 16 | Awadhesh Pratap Singh Vishwavidyalaya, Rewa, MP | | 1,048 |
| 17 | B L D E University, Bijapur, Karnataka | 12,301 | |
| 18 | Baba Ghulam Shah Badshah Univ, Rajouri, Jummu & Kashmir | 6,567 | |
| 19 | Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur, Bihar | | 874 |
| 20 | Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh | 15,850 | 19 |
| 21 | Banaras Hindu University, Varanasi, Uttar Pradesh | 4,45,000 | 14,772 |
| 22 | Banasthali University, Banasthali, Rajasthan | 75,620 | 109 |
| 23 | Bangalore University, Bangalore, Karnatak | 1,30,000 | 1,651 |
| 24 | Barkatullah Vishwavidyalaya, Bhopal, MP | | 1,063 |
| 25 | Bengal Engineering and Science University, Howarha, WB | | 5 |
| 26 | Berhampur University, Berhampur, Orrisa | | 381 |
| 27 | Bharathiar University, Coimbatore, Tamil Nadu | 87,115 | 69 |
| 28 | Bharathidasan University, Tiruchirapalli, Tamil Nadu | 52,774 | 125 |
| 29 | Bharati Vidyapeeth, Pune, Maharashtra | 20,215 | 41 |
| 30 | Bhavnagar University, Bhavnagar, Gujarat | 44,385 | 686 |
| 31 | Bhupendra Narayan Mandal University, Madhepur, Bihar | | 404 |
| 32 | Bidhan Chandra Krishi Viswavidyalaya, Nadia, WB | | 406 |
| 33 | Birla Institute of Technology & Science, Pilani, Rajashthan | 72,015 | 271 |

| | | | |
|---|---|---|---|
| 34 | Birla Institute of Technology Mesra, Ranchi, Jharkhand | | 5 |
| 35 | Birsa Agricultural University, Ranchi, Jharkhand | | 98 |
| 36 | Bundelkhand University, Jhansi, UP | | 298 |
| 37 | Burdwan University, Burdwan, West Bengal | 45,000 | |
| 38 | C S M Medical University, Lucknow, UP | 366 | |
| 39 | Central Drugs Research Institute, Lucknow, UP | | 45 |
| 40 | Central Inst.of English & Foreign Lang. , Hyderabad, Andhra Pradesh | 50,000 | |
| 41 | Central Institute of Fisheries Education, Mumbai | | 2 |
| 42 | Central University of Tibetan Studies, Varanasi | 25,145 | |
| 43 | Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, UP | | 370 |
| 44 | Chatrapati Shahu Ji Maharaj University, Kanpur, Uttar Pradesh | 5,000 | |
| 45 | Chaudhary Charan Singh Haryana Agricultural University, Hissar, Haryana | | 1,049 |
| 46 | Chaudhary Charan Singh University, Meerut, UP | 70,387 | 1,930 |
| 47 | Chaudhary Devi Lal University, Sirsa, Haryana | | 12 |
| 48 | Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya, Palampur, Himachal Pradesh | | 493 |
| 49 | Chhatrpati Shahu Ji Maharaj Kanpur University, Kanpur, UP | | 2,072 |
| 50 | Cochin University of Science & Technology, Kochi, Kerala | 72,693 | 1,138 |
| 51 | Dakshina Bharat Hindi Prachar Sabha, Chennai, Tamil Nadu | | 23 |
| 52 | Dayalbagh Educational Institute, Agra, UP | | 245 |
| 53 | Deccan College Post Graduate & Research Institute, Pune,Maharashtra | 1,40,000 | 102 |
| 54 | Deendayal Upadhyay Gorakhpur University, Gorakhpur, Uttar Pradesh | 15,992 | 1,632 |
| 55 | Defence Science Centre, Delhi | | 13 |
| 56 | Dev Sanskriti Vishwavidyalaya, Dehradun, Uttaranchal | | 12 |
| 57 | Devi Ahilya Vishwavidyalaya, Indore, Madhya Pradesh | 18,000 | 2,654 |
| 58 | Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, Gujarat | | 4 |
| 59 | Dibrugarh University, Dibrugarh, Assam | 57,466 | 600 |
| 60 | Doon University, Dehradun, Uttarakhand | 3,707 | |
| 61 | Dr.Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra | 36,015 | 2,194 |
| 62 | Dr.Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Maharashtra | | 24 |
| 63 | Dr.Bhim Rao Ambedkar University, Agra, UP | 1,33,000 | 3676 |
| 64 | Dr.Harisingh Gour Vishwavidyalaya, Sagar, MP | | 2,443 |
| 65 | Dr.Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra | | 195 |
| 66 | Dr.Ram Manohar Lohia Avadh University, Faizabad, UP | | 365 |
| 67 | Dr.Yashwant Singh Parmar University of Horticulture and Forestry, Solan, HP | | 445 |

| 68 | Dravidian University, Kuppam, Andhra Pradesh | | 1 |
|---|---|---|---|
| 69 | Eternal University, Baru Sahib, Sirmour, HP | | 7 |
| 70 | Fakir Mohan University, Balasore, Orissa | | 21 |
| 71 | Forest Research Institute, Dehradun, Uttaranchal | | 316 |
| 72 | Gandhigram Rural Institute, Gandhigram,Tamil Nadu | 1,66,196 | 250 |
| 73 | Gauhati University, Guwahati, Assam | 10,000 | 2,539 |
| 74 | Goa University, Panaji, Goa | 1,09,886 | 132 |
| 75 | Gokhale Institute of Politics and Economics, Pune, Maharashtra | 2,46,000 | 6 |
| 76 | Govind Ballabh Pant University of Agriculture and Technology, Pant Nagar, Uttaranchal | | 621 |
| 77 | Gujarat Ayurved University, Jamnagar, Gujarat | | 189 |
| 78 | Gujarat Forensic Sciences University, Gandhinagar, Gujarat | | 1 |
| 79 | Gujarat University, Ahmedabad, Gujarat | 2,50,000 | 1,444 |
| 80 | Gujarat Vidyapith, Ahmedabad, Gujarat | 4,41,872 | 52 |
| 81 | Gulbarga University, Gulbarga, Karnataka | 84,964 | 400 |
| 82 | Guru Angad Dev Veterinary and Animal Sciences University, Hissar, Haryana | | 10 |
| 83 | Guru Ghasidas University, Bilaspur, Chattisgarh | 46,326 | 1,873 |
| 84 | Guru Gobind Singh Indraprasth University, Delhi | 17,374 | |
| 85 | Guru Jambheshwar University of Science & Technology, Hissar, Haryana | 17,507 | 202 |
| 86 | Guru Nanak Dev University, Amritsar, Punjab | 1,22,302 | 608 |
| 87 | Gurukula Kangri Vishwavidyalaya, Haridwar, Uttaranchal | 90,372 | 127 |
| 88 | Hemchandracharya North Gujarat University, Patan, Gujarat | 55,201 | 1,067 |
| 89 | Hemwati Nandan Bahuguna Garhwal University, Garhwal, Uttaranchal | | 457 |
| 90 | Himachal Pradesh University, Shimla, Himachal Pradesh | 46,582 | 1,226 |
| 91 | Homi Bhabha National Institute, Mumbai | | 13 |
| 92 | IIT Bhubneshwar, Bhubneshwar, Orissa | 1,028 | |
| 93 | Indian Agricultural Research Institute, New Delhi | | 1,997 |
| 94 | Indian Institute of Advanced Study, Shimla, Himachal Pradesh | 69,693 | |
| 95 | Indian Institute of Management, Bangalore, Karnataka | 1,17,518 | |
| 96 | Indian Institute of Science Banglore, Bengaluru, Karnataka | | 2,174 |
| 97 | Indian Institute of Technology Bombay, Mumbai, Maharashtra | | 1,160 |
| 98 | Indian Institute of Technology Delhi, New Delhi | | 2,821 |
| 99 | Indian Institute of Technology Kanpur, Kanpur, UP | | 1,057 |
| 100 | Indian Institute of Technology Kharagpur, Kharagpur, WB | | 1,448 |
| 101 | Indian Institute of Technology Madras, Chennai, Tamil Nadu | | 1,693 |
| 102 | Indian Institute of Technology Roorkee, Roorkee, UP | 70,000 | 2,439 |
| 103 | Indian Institute of Technology, Mandi, Himachal Pradesh | 8,154 | |
| 104 | Indian Institute of Technology, Ropar, Punjab | 4,274 | |
| 105 | Indian Institute of Tropical Meteorology, Pune, Maharashtra | | 2 |
| 106 | Indian School of Mines, Dhanbad, Jharkhand | | 387 |
| 107 | Indian Statistical Institute, Kolkata, WB | | 125 |

| 108 | Indian Veterinary Research Institute, Izatnagar, UP | | 111 |
|-----|-----|-----|-----|
| 109 | Indira Gandhi National Open University, New Delhi | | 4 |
| 110 | Indira Kala Sangeet Vishwavidyalaya, Khairagarh, Chattisgarh | 13,697 | 136 |
| 111 | Industrial Toxicology Research Centre, Lucknow, UP | | 9 |
| 112 | International Institute for Population Sciences, Govandi, Mumbai | 51,139 | 123 |
| 113 | Jadavpur University, Kolkatta, West Bengal | 2,23,670 | 1,307 |
| 114 | Jai Narain Vyas University, Jodhpur, Rajasthan | 4,823 | 1,971 |
| 115 | Jai Prakash Vishwavidyalaya, Chapra, Bihar | | 18 |
| 116 | Jain Vishva Bharati Institute, Ladnun, Rajasthan | 4,715 | 113 |
| 117 | Jamia Hamdard University, New Delhi | 37,487 | 322 |
| 118 | Jamia Milia Islamia, New Delhi | 64,177 | 869 |
| 119 | Jawaharlal Nehru Institute of Postgraduate Medical Education and Research, Dhanvantri Nagar, Puducherry | | 1 |
| 120 | Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur, MP | | 206 |
| 121 | Jawaharlal Nehru Technological University, Hyderabad, AP | | 305 |
| 122 | Jawaharlal Nehru University, New Delhi | 3,11,067 | 4,277 |
| 123 | Jaypee University of Information Technology, Solan, HP | | 2 |
| 124 | Jiwaji University, Gwalior, Madhya Pradesh | 25,000 | 1,443 |
| 125 | Kakatiya University, Warangal, Andhra Pradesh | 56,837 | 2,198 |
| 126 | Kameshwar Singh Darbhanga Sanskrit University, Darbhangha, Bihar | 1,351 | 253 |
| 127 | Kannada University, Hampi, Karnataka | 34,877 | 185 |
| 128 | Kannur University, Kannur, Kerala | | 155 |
| 129 | Karnatak University, Dharwad, Karnataka | 1,45,111 | 2,933 |
| 130 | Karnataka State Women University, Mysore, Karnataka | | 49 |
| 131 | Kavi Kulaguru Kalidas Sanskrit Vishwavidyalaya, Ramtek, Nagpur, Maharashtra | | 2 |
| 132 | Kerala Agricultural University, Ernakulam, Kerala | | 158 |
| 133 | Krishna Kanta Handiqui State Open University, Gauhati, Assam | 9,073 | |
| 134 | Kumaun University, Nainital, Uttaranchal | 5,000 | 970 |
| 135 | Kurukshetra University, Kurukshetra, Hariyana | 2,00,000 | 4,290 |
| 136 | Kuvempu University, Kuvempu, Karnataka | 46,693 | 1,039 |
| 137 | Lakshmibai National Institute of Physical Education University, Gwalior, MP | | 3 |
| 138 | Lalit Narayan Mithila Vishvidyalaya, Darbhangha, Bihar | | 181 |
| 139 | M J P Rohilkhand University, Bareilly, Uttar Pradesh | | 1,546 |
| 140 | Madhya Pradesh Bhoj University, Bhopal, MP | | 60 |
| 141 | Madurai Kamaraj University, Madurai, Tamil Nadu | 1,94,525 | 952 |
| 142 | Magadh University, Bodhgaya, Bihar | | 1,115 |
| 143 | Maharaja Sayajirao University of Baroda, Vadodara, Gujarat | 4,29,722 | 2,900 |
| 144 | Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan | | 131 |
| 145 | Maharashtra Animal & Fishery Sciences University, Mumbai | | 3 |
| 146 | Maharishi Mahesh Yogi Vedic Vishwavidyalaya, Noida, UP | | 2 |

| 147 | Maharshi Dayanand Saraswati University, Ajmer, Rajasthan | 27,095 | 47 |
|-----|----------------------------------------------------------|--------|------|
| 148 | Maharshi Dayanand University, Rohtak, Haryana | | 2,075 |
| 149 | Maharshi Markandeshwar University, Mullana-Ambala, Haryana | | 13 |
| 150 | Mahatma Gandhi Antarrashtriya Hindia Vishwavidyalaya, Wardha, Maharashtra | | 8 |
| 151 | Mahatma Gandhi Chitrakoot Gramoday Vishwavidyalaya, Chitrakoot, MP | | 7 |
| 152 | Mahatma Gandhi Gramoday Vishwavidyalaya, Chitrakoot, Madhya Pradesh | 5,000 | |
| 153 | Mahatma Gandhi Kashi Vidyapeeth, Varanasi, Uttar Pradesh | | 142 |
| 154 | Mahatma Gandhi University, Kottayam, Kerala | 70,439 | 514 |
| 155 | Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra | | 450 |
| 156 | Makhanlal Chaturvedi Rashtriya Patrakarita Vishwavidyalaya, Bhopal, MP | | 23 |
| 157 | Mangalore University, Mangalore, Karnataka | 35,649 | 579 |
| 158 | Manipal Academy of Higher Education, Manipal, Karnataka | | 8 |
| 159 | Manipal University, Manipal, Karnataka | | 12 |
| 160 | Manipur University, Imphal, Manipur | 71,547 | 1,302 |
| 161 | Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu | 42,344 | 60 |
| 162 | Marathwada Krishi Vidyapeeth, Parbhani, Maharashtra | | 525 |
| 163 | MATS University, Raipur | | 1 |
| 164 | Maulana Azad National Institute of Technology, Hyderabad, Andhra Pradesh | | 67 |
| 165 | Maulana Azad National Urdu University, Hyderabad, Andhra Pradesh | 9,261 | |
| 166 | Mizoram University, Aizwal, Mizoram | 19,585 | 119 |
| 167 | Mohanlal Sukhadia University, Udaipur, Rajasthan | 1,07,621 | 921 |
| 168 | Mother Teresa Women`s University, Kodaikanal, Kerala | 34,113 | 7 |
| 169 | Nagaland University, Kohima, Nagaland | 15,556 | 42 |
| 170 | NALSAR Univ of Law, Hyderabad, Andhra Pradesh | 14,415 | |
| 171 | Narendra Dev University of Agriculture and Technology, Faizabad, Uttar Pradesh | | 118 |
| 172 | National Botanical Research Institute, Lucknow, UP | | 3 |
| 173 | National Brain Research Centre, Manesar, Gurgaon, Haryana | | 6 |
| 174 | National Chemical Laboratory, Pune, Maharashtra | | 16 |
| 175 | National Dairy Research Institute, Karnal, Haryana | | 169 |
| 176 | National Institute of Mental Health and Neuro Sciences, Bengaluru, Karnataka | | 286 |
| 177 | National Institute of Pharmaceutical Education and Research, Hyderabad, Andhra Pradesh | | 123 |
| 178 | National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh | 23,900 | |
| 179 | National Institute of Technology Hamirpur, Hamirpur, HP | | 6 |
| 180 | National Institute of Technology Rourkela, Rourkela, Jharkhand | | 3 |

| 181 | National Institute of Technology Silchar, Silchar, Assam | | 9 |
|---|---|---|---|
| 182 | National Institute of Technology Warangal, Warangal, Andhra Pradesh | | 5 |
| 183 | National Law Institute Univ, Bhopal, MP | 5,947 | |
| 184 | National Sugar Institute, Kanpur, UP | | 3 |
| 185 | National Univ of Advanced Legal Studies, Kochi, Kerala | 5,749 | |
| 186 | Netaji Subhas Open University, Kolkata, WB | | 1 |
| 187 | Nirma University, Ahmedabad, Gujarat | | 1 |
| 188 | North Eastern Hill University, Shilong, Meghalaya | 84,523 | |
| 189 | North Maharashtra University, Jalgaon, Maharashtra | 35,000 | 318 |
| 190 | North Orissa University, Mayurbhanj, Orissa | | 5 |
| 191 | North-Eastern Hill University, Shilong, Meghalaya | | 1,106 |
| 192 | Orissa University of Agricultural and Technology, Bhubaneswar, Orissa | | 105 |
| 193 | Osmania University, Hyderabad, Andhra Pradesh | 1,02,741 | 7,134 |
| 194 | Pandit Ravishankar Shukla University, Raipur, Chhattisgarh | 1,56,564 | 1,072 |
| 195 | Panjab University, Punjab | 2,05,168 | 3,755 |
| 196 | Patna University, Patna, Bihar | | 727 |
| 197 | Periyar University, Salem, Tamil Nadu | 25,606 | |
| 198 | Pondicherry University, Pondicherry | 37,174 | 494 |
| 199 | Postgraduate Institute of Medical Education & Research, Chandigarh | | 332 |
| 200 | Potti Sreeramulu Telugu University, Hyderabad | 25,936 | 119 |
| 201 | Pravara Institute of Medical Sciences, Loni, Maharashtra | 20,529 | |
| 202 | PRIST Univerisity, Thanjavur, Tamil Nadu | | 5 |
| 203 | Punjab Agricultural University, Ludhiana, Punjab | | 1,767 |
| 204 | Punjabi University, Patiala, Punjab | 34,254 | 1,066 |
| 205 | Rabindra Bharati University, Howarha, WB | 16,924 | 425 |
| 206 | Rajasthan Agricultural University, Bikaner, Rajasthan | | 166 |
| 207 | Rajendra Agricultural University, Samastipur, Bihar | | 160 |
| 208 | Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, MP | | 56 |
| 209 | Rajiv Gandhi University, Doimukh, Arunachal Pradesh | 25,000 | 82 |
| 210 | Raman Research Institute, Bengaluru, Karnataka | | 5 |
| 211 | Ranchi University, Ranchi, Jharkhand | 60,554 | 336 |
| 212 | Rani Durgawati Vishwavidyalaya, Jabalpur, Madhya Pradesh | 20,000 | 1,787 |
| 213 | Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra | 2,02,803 | 10,374 |
| 214 | Rashtriya Sanskrit Sansthan, Janakpuri, New Delhi | | 40 |
| 215 | Rashtriya Sanskrit Vidyapeetha, Tirupati, Andhra Pradesh | 16,690 | 105 |
| 216 | Sam Higginbotom Institute of Agriculture, Technology & Sciences, Allahabad, UP | | 283 |
| 217 | Sambalpur University, Sambalpur, Orissa | 32,993 | 1,062 |
| 218 | Sampurnanand Sanskrit Vishvavidyalaya, Varanasi, UP | 10,000 | 80 |
| 219 | Sant Gadge Baba Amravati University, Amravati, Maharashtra | 71,862 | 133 |

| | | | |
|---|---|---|---|
| 220 | Sant Longowal Institute of Engineering and Technology, Longowal, Punjab | | 5 |
| 221 | Sardar Patel University, Vallabh Vidyanagar, Anand, Gujarat | 2,24,673 | 924 |
| 222 | Sardar Vallabhbhai National Institute of Technology, Surat, Gujarat | | 31 |
| 223 | Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, UP | | 1 |
| 224 | Sardarkrushinagar Dantiwada Agricultural University, Palanpur, Gujarat | | 152 |
| 225 | Sathyabama University, Chennai, Tamil Nadu | | 2 |
| 226 | Saurashtra University, Rajkot, Gujarat | 20,965 | 1,651 |
| 227 | School of Planning and Architecture, New Delhi | | 3 |
| 228 | Shanmugha Arts, Science, Technology & Research Academy University (SASTRA University), Thanjavur, Tamil Nadu | | 1 |
| 229 | Sher-e-Kashmir University of Agricultural Sciences and Technology Jammu, Jammu, J&K | | 11 |
| 230 | Sher-e-Kashmir University of Agricultural Sciences and Technology Kashmir, Sri Nagar, J&K | | 37 |
| 231 | Shivaji University, Kolhapur, Maharashtra | 60,506 | 1,371 |
| 232 | Shobhit University, Meerut, UP | | 8 |
| 233 | Shreemati Nathibai Damodar Thackersey Women's University, Mumbai | | 665 |
| 234 | Shri Jagannath Sanskrit Vishvavidyalaya, Puri, Orissa | | 62 |
| 235 | Shri Jagdishprasad Jhabarmal Tibarewala University, Vidyanagari, Chudela, Rajasthan | | 7 |
| 236 | Shri Lal Bhadhur Shastri Rastriya Sanskrit Vidyapeeth, New Delhi | | 1 |
| 237 | Shri Mata Vaishno Devi University, Kakryal, Katra, J&K | | 7 |
| 238 | Sido Kanhu Murmu University, Dhumka, Jharkhand | | 3 |
| 239 | Sikkim-Manipal University of Health, Medical & Technological Sciences, Gangtok, Sikkim | | 5 |
| 240 | Siksha O Anusandhan University, Bhubneswar, Orissa | | 7 |
| 241 | SNDT Women's University, Mumbai, Maharashtra | 70,577 | |
| 242 | Solapur University, Solapur, Mahrashtra | | 60 |
| 243 | Sree Chitra Tirunal Institute for Medical Sciences & Technology, Travancore, Kerala | 24,110 | 7 |
| 244 | Sree Sankaracharya University of Sanskrit, Kalady, Kerala | | 94 |
| 245 | Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram, Tamil Nadu | | 12 |
| 246 | Sri Krishnadevaraya University, Anantapura, Andhra Pradesh | 35,167 | 343 |
| 247 | Sri Padmavati Mahila Vishwavidyalaya, Tirupati, Andhra Pradesh | 37,088 | 30 |
| 248 | Sri Ramachandra University, Chennai, Tamil Nadu | | 58 |
| 249 | Sri Sathya Sai Institute of Higher Learning, Anantpur, Andhra Pradesh | 28,937 | 50 |

| | | | |
|---|---|---|---|
| 250 | Sri Venkateswara Institute of Medical Sciences, Tirupati, Andhra Pradesh | | 2 |
| 251 | Sri Venkateswara University, Tirupati, Andhra Pradesh | 88,864 | 2,615 |
| 252 | Sumandeep Vidyapeeth, Vadodara, Gujarat | | 3 |
| 253 | SVYASA Yoga University, Bangalore, Karnataka | 7,543 | |
| 254 | Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra | 44,651 | 468 |
| 255 | Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA) University, Bengaluru, Karnataka | | 22 |
| 256 | Tamil Nadu Dr. Ambedkar Law University, Chennai, Tamil Nadu | | 12 |
| 257 | Tamil Nadu Dr. M.G.R.Medical University, Chennai, Tamil Nadu | | 3 |
| 258 | Tamil Nadu Veterinary and Animal Sciences University, Chennai, Tamil Nadu | | 182 |
| 259 | Tamil University, Thanjavur, Tamil Nadu | 7,222 | |
| 260 | Tamilnadu Agricultural University, Coimbatore, Tamil Nadu | | 404 |
| 261 | Tata Institute of Fundamental Research, Mumbai | | 20 |
| 262 | Tata Institute of Social Sciences, Govandi, Mumbai | 56,423 | 85 |
| 263 | Tezpur University, Tezpur, Assam | 25,888 | 138 |
| 264 | Thapar Inst.of eng and Technology, Patiyala, Punjab | 16,806 | |
| 265 | Thapar University, Patiala, Punjab | | 118 |
| 266 | The English and Foreign Languages University, Hyderabad, Andhra Pradesh | | 104 |
| 267 | The WB National University of Juridical Sciences, Kolkata, West Bengal | 11,027 | |
| 268 | Tilak Maharashtra Vidyapeeth, Pune, Maharashtra | 63,777 | 23 |
| 269 | Tilak Manjhi Bhagalpur University, Bhagalpur, Bihar | | |
| 270 | Tilkamanjhi Bhagalpur University, Bhagalpur, Bihar | 3,147 | 418 |
| 271 | Tripura University, Suryamaninagar, Tripura | | 52 |
| 272 | University of Agricultural Sciences Bengaluru, Karnataka | | 345 |
| 273 | University of Agricultural Sciences, Dharwad, Karnataka | | 78 |
| 274 | University of Allahabad, Allahabad, Uttar Pradesh | 5,300 | 1,956 |
| 275 | University of Bundelkhand, Jhansi, Uttar Pradesh | 30110 | |
| 276 | University of Burdwan, Burdwan, WB | | 3,466 |
| 277 | University of Calcutta, West Bengal | 15,690 | 8,982 |
| 278 | University of Calicut, Calicut, Kerala | 69847 | 924 |
| 279 | University of Delhi, New Delhi | 6,88,174 | 17,199 |
| 280 | University of Hyderabad , Hyderabad, Andhra Pradesh | 3,76,217 | 500 |
| 281 | University of Jammu, Jammu & Kashmir | 1,10,643 | 4,902 |
| 282 | University of Kalyani, West Bengal | 4,323 | 344 |
| 283 | University of Kashmir, Srinagar, Jammu & Kashmir | 3,10,853 | 412 |
| 284 | University of Kerala, Thiruvananthapuram, Kerala | 1,31,249 | 1,535 |
| 285 | University of Lucknow, Lucknow, UP | | 2,605 |
| 286 | University of Madras, Chennai, Tamil Nadu | 50,000 | 3,950 |
| 287 | University of Mumbai, Mumbai, Maharashtra | 8,27,773 | 6,007 |

| | | | |
|---|---|---|---|
| 288 | University of Mysore, Mysore, Karnataka | 1,29,945 | 1,044 |
| 289 | University of North Bengal, Siligudi, West Bengal | 1,78,357 | 1,114 |
| 290 | University of Pune, Pune, Maharashtra | 35,592 | 3,144 |
| 291 | University of Rajasthan, Jaipur, Rajasthan | | 7,162 |
| 292 | Utkal University of Culture, Bhubneswar, Orissa | | 1 |
| 293 | Utkal University, Bhubneswar, Orissa | | 1,858 |
| 294 | Uttar Pradesh Technical University, Lucknow, UP | | 37 |
| 295 | Vardhaman Mahaveer Open University, Kota, Rajasthan | | 42 |
| 296 | Veer Kunwar Singh University, Ara, Bihar | | 67 |
| 297 | Veer Narmad South Gujarat University, Surat, Gujarat | 2,00,567 | 294 |
| 298 | Vellore Institute of Technology, Vellore, Tamil Nadu | | 3 |
| 299 | Vidyasagar University, Mednapur, West Bengal | 41,320 | 203 |
| 300 | Vikram University, Ujjain, MP | | 2,024 |
| 301 | Vinoba Bhave University, Hazaribag, Jharkhand | | 346 |
| 302 | Visva Bharati University, Shanti Niketan, WB | 24,336 | 524 |
| 303 | Visvesvaraya National Institute of Technology, Nagpur, Maharashtra | | 65 |
| 304 | Yashwantrao Chavan Maharashtra Open University, Nasik, Maharashtra | 36,253 | 73 |
| | **Total** | **1,24,01,438** | **2,44,927** |

## State-Wise List of the SOUL Installations

| Sr No. | Name of the State | Installation | 1st April, 11 to 31st March, 12 | Total |
|--------|-------------------|--------------|----------------------------------|-------|
| 1. | Andhra Pradesh | 213 | 7 | 220 |
| 2. | Assam | 19 | 5 | 24 |
| 3. | Bihar | 12 | | 12 |
| 4. | Chhattisgarh | 14 | 9 | 23 |
| 5. | Daman | 2 | | 2 |
| 6. | Goa | 3 | | 3 |
| 7. | Gujarat | 710 | 32 | 742 |
| 8. | Haryana | 41 | 4 | 45 |
| 9. | Himachal Pradesh | 41 | 6 | 47 |
| 10. | Jammu & Kashmir | 47 | 2 | 49 |
| 11. | Jharkhand | 5 | | 5 |
| 12. | Karnataka | 29 | 1 | 30 |
| 13. | Kerala | 119 | | 119 |
| 14. | Madhya Pradesh | 167 | 19 | 186 |
| 15. | Maharashtra | 298 | 31 | 329 |
| 16. | Meghalaya | 1 | 1 | 2 |
| 17. | Mizoram | 8 | 1 | 9 |
| 18. | Nepal | 1 | | 1 |
| 19. | New Delhi | 34 | 2 | 36 |
| 20. | North Eastern States | 191 | 107 | 298 |
| 21. | Orissa | 8 | | 8 |
| 22. | Pondicherry | 3 | | 3 |
| 23. | Punjab | 117 | | 117 |
| 24. | Rajasthan | 48 | 2 | 50 |
| 25. | Tamil Nadu | 27 | 1 | 28 |
| 26. | Uttar Pradesh | 59 | 9 | 68 |
| 27. | Uttaranchal | 17 | 1 | 18 |
| 26. | West Bengal | 87 | 16 | 103 |
| | **Total** | **2,321** | **256** | **2,577** |

# List of Universities who signed MoU on Shodhganga

| Sr.No. | University Name | State | Signed On |
|---|---|---|---|
| 1 | University of Pune, Pune | Maharashtra | 27th April 2011 |
| 2 | Guru Gobind Singh Indraprastha University, New Delhi | New Delhi | 4th May 2011 |
| 3 | Central University of Gujarat, Gandhinagar | Gujarat | 4th May 2011 |
| 4 | University of North Bengal, Darjeeling | West Bengal | 7th June 2011 |
| 5 | Kannur University, Kannur | Kerala | 28th June 2011 |
| 6 | Tamil Nadu Physical Education And Sports University* | Tamilnadu | 4th July 2011 |
| 7 | Prist University, Thanjavur* | Tamilnadu | 5th July 2011 |
| 8 | Integral University, Lucknow* | Uttar Pradesh | 7th July 2011 |
| 9 | Periyar Maniammai University, Thanjavur* | Tamil Nadu | 11th July 2011 |
| 10 | Sant Longowal Institute of Engineering and Technology, Longowal* | Panjab | 13th July 2011 |
| 11 | Shri Jagdishprasad Jhabarmal Tibrewala* | Rajasthan | 14th July 2011 |
| 12 | Gauhati University, Guwahati | Assam | 18th July 2011 |
| 13 | Karnatak University, Dharwar | Karnatak | 20th July 2011 |
| 14 | Tilak Maharashtra Vidyapeeth, Pune | Maharashtra | 20th July 2011 |
| 15 | The WB National University of Juridical Sciences, Kolkata | West Bengal | 4th August 2011 |
| 16 | Christ University*, Bangalore | Karnataka | 11th August 2011 |
| 17 | The Tamil Nadu Dr. Ambedkar Law University, Chennai | Tamilnadu | 12th August 2011 |
| 18 | Jawaharlal Nehru Technological University, Hyderabad | Andhra Pradesh | 12th August 2011 |
| 19 | Amrita Vishwa Vidyapeetham University, Coimbatore* | Tamil Nadu | 23rd August 2011 |
| 20 | Jaypee Institute of Information Technology, Noida* | Uttar Pradesh | 16th September 2011 |
| 21 | Shivaji University, Kolhapur | Maharashtra | 26th September 2011 |
| 22 | Assam Don Bosco University, Guwahati* | Assam | 27th September 2011 |
| 23 | Bundelkhand University, Jhansi | Uttar Pradesh | 13th October 2011 |
| 24 | Manipal University, Manipal* | Karnataka | 20th October 2011 |
| 25 | Pandit Ravishanker Shukla University, Raipur | Chattisgarh | 14th November 2011 |
| 26 | Jawaharlal Nehru University | New Delhi | 23rd December 2011 |
| 27 | Krishna Kanta Handique State Open University * | Assam | 23rd December 2011 |
| 28 | B.S. Abdur Rahman University | Tamil Nadu | 28th December 2011 |
| 29 | Hindustan University | Tamil Nadu | 11th January 2012 |
| 30 | Kumaun University Nainital | Uttarakhand | 24th January 2012 |
| 31 | Maharshi Dayanand University, Rohtak | Haryana | 21st February 2012 |
| 32 | Sikkim University, Gangtok | Sikkim | 1st March 2012 |
| 33 | Sambalpur University ,Jyoti Vihar | Orissa | 6th March 2012 |
| 34 | Dayalbag Educational Institute, Agra | Uttar Pradesh | 16st March 2012 |
| 35 | Sri Ramachandra University, Porur | Chennai | 26th March 2012 |

**\* Not covered under Section 12 (B) of UGC Act.**

**Universities that have submitted Full-text Theses to Shodhganga without signing MoU**

| Sr. No. | University Name |
|---|---|
| 1 | Alagappa University |
| 2 | Avinashilingam Deemed University for Women |
| 3 | Banaras Hindu University |
| 4 | Bharath University |
| 5 | Bharathiar University |
| 6 | Chhatrapati Sahuji Maharaj University |
| 7 | Cochin University of Science & Technology |
| 8 | Gujarat University |
| 9 | Guru Nanak Dev University |
| 10 | Jadavpur University |
| 11 | Jiwaji University |
| 12 | Kurukshetra University |
| 13 | Lakshmibai National University of Physical Education |
| 14 | Madhya Pradesh Bhoj (Open) University |
| 15 | Maharashtra Animal and Fishery Sciences University |
| 16 | Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya |
| 17 | Mahatma Gandhi University |
| 18 | Mangalore University |
| 19 | Manipur University |
| 20 | Manonmaniam Sundaranar University |
| 21 | MATS University |
| 22 | Mizoram University |
| 23 | Mohan Lal Sukhadia University |
| 24 | Netaji Subhas Open University |
| 25 | Nirma University |
| 26 | Panjab University |
| 27 | Periyar University |
| 28 | Pondicherry University |
| 29 | Punjabi University |
| 30 | Saurashtra University |
| 31 | Shobhit University |
| 32 | Tamil University |
| 33 | Tata Institute of Social Sciences |
| 34 | University of Calcutta |
| 35 | University of Calicut |
| 36 | University of Hyderabad |

| 37 | University of Kashmir |
| 38 | University of Madras |
| 39 | University of Mysore |
| 40 | Veer Narmad South Gujarat University |

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New Delhi

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**Shri Harish Chandra**
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Ahmedabad, Gujarat

**Universities and IUCs that are provided Access to E-resources under UGC-INFONET Digital Library Consortium**

| Sl. No | University Name | No of e-resources |
|---|---|---|
| | **Phase I** | |
| 1. | Aligarh Muslim University, Aligarh, Uttar Pradesh | 26 |
| 2. | Andhra University, Visakhapatnam, Andhra Pradesh | 25 |
| 3. | Anna University, Chennai, Tamil Nadu | 24 |
| 4. | Avinashilingam University For women, Coimbatore, Tamil Nadu | 22 |
| 5. | Banaras Hindu University, Varanasi, Uttar Pradesh | 26 |
| 6. | Bangalore University, Bangalore, Karnataka | 26 |
| 7. | Birla Institute of Technology and Science, Pilani, Rajasthan | 24 |
| 8. | Calcutta University, Calcutta, West Bengal | 26 |
| 9. | Cochin University of Science and Technology, Cochin, Kerala | 24 |
| 10. | Devi Ahilya University, Indore, Madhya Pradesh | 23 |
| 11. | Gauhati University, Gauhati, Assam | 26 |
| 12. | Goa University, Goa, Goa | 26 |
| 13. | Guru Nanak Dev University, Amritsar, Punjab | 26 |
| 14. | Jadavpur University, kolkata, West Bengal | 26 |
| 15. | Jamia Hamdard University, New Delhi, Delhi | 21 |
| 16. | Jamia Millia Islamia, New Delhi, Delhi | 25 |
| 17. | Jammu University, Jammu Tawi, Jammu and Kashmir | 24 |
| 18. | Jawaharlal Nehru University, New Delhi, Delhi | 24 |
| 19. | Karnatak University, Dharwad, Karnataka | 25 |
| 20. | Kurukshetra University, Kurukshetra, Haryana | 25 |
| 21. | Madurai Kamraj Univeristy, Madurai, Tamil Nadu | 26 |
| 22. | Mangalore University, Mangalore, Karnataka | 26 |
| 23. | Manipur University, Imphal, Manipur | 25 |
| 24. | Mahatma Gandhi University, Kottayam, Kerala | 25 |
| 25. | Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra | 25 |
| 26. | North Eastern Hill University, Shillong, Meghalaya | 26 |
| 27. | Osmania University, Hyderabad, Andhra Pradesh | 26 |
| 28. | Pondichery University, Pondicherry, Pondicherry | 25 |
| 29. | Pt. Ravishankar Shukla University, Raipur, Chhatisgarh | 25 |
| 30. | Panjab University, Chandigarh, Chandigarh | 26 |
| 31. | Punjabi University, Patiala, Punjab | 25 |
| 32. | Sardar Patel University, Vallabh Vidyanagar, Gujarat | 25 |
| 33. | Shivaji University, Kolhapur, Maharashtra | 26 |
| 34. | Tezpur University, Tezpur, Assam | 26 |
| 35. | Thapar University, Patiala, Punjab | 23 |
| 36. | The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat | 26 |

| 37. | University of Allahabad, Allahabad, Uttar Pradesh | 25 |
|-----|---------------------------------------------------|-----|
| 38. | University of Calicut, Kozhikode, Kerala | 24 |
| 39. | University of Delhi, Delhi, Delhi | 26 |
| 40. | University of Hyderabad, Hyderabad, Andhra Pradesh | 25 |
| 41. | University of Kashmir, Srinagar, Jammu and Kashmir | 25 |
| 42. | University of Kerala, Thiruvanathapuram, Kerala | 25 |
| 43. | University of Madras, Chennai, Tamil Nadu | 26 |
| 44. | University of Mumbai, Mumbai, Maharashtra | 25 |
| 45. | University of Mysore, Mysore, Karnataka | 26 |
| 46. | University of North Bengal, Darjeeling, West Bengal | 25 |
| 47. | University of Pune, Pune, Maharashtra | 26 |
| 48. | University of Rajasthan, Jaipur, Rajasthan | 26 |
| 49. | Jiwaji University Gwalior, Gwalior, Madhya Pradesh | 24 |
| 50. | Kuvempu University, Shankaraghatta, Karnataka | 24 |
| | **Phase II** | |
| 51. | Sant Gadge Baba Amravati University, Amravati, Maharashtra | 18 |
| 52. | Rajiv Gandhi University, Itanagar, Arunachal Pradesh | 21 |
| 53. | Annamalai University, Annamalainagar, Tamil Nadu | 20 |
| 54. | Assam University, Silchar, Assam | 23 |
| 55. | Awadhesh Pratap Singh University, Rewa, Madhya Pradesh | 14 |
| 56. | Banasthali University, Banasthali, Rajasthan | 19 |
| 57. | Berhampur University, Berhampur, Orissa | 14 |
| 58. | Bharathiar University, Coimbatore, Tamil Nadu | 19 |
| 59. | Bharathidasan University, Tiruchirapall, Tamil Nadu | 19 |
| 60. | Bhavnagar University, Bhavnagar, Gujarat | 19 |
| 61. | Birla Institute of Technology, Ranchi, Jharkhand | 19 |
| 62. | Bundelkhand University, Jhansi, Uttar Pradesh | 19 |
| 63. | Chaudhary Charan Singh University, Meerut, Uttar Pradesh | 17 |
| 64. | Chhatrapati Shahu Ji Maharaj Kanpur University, Kanpur, Uttar Pradesh | 15 |
| 65. | Dayalbagh Educational Institute, Agra, Uttar Pradesh | 18 |
| 66. | Dibrugarh University, Dibrugarh, Assam | 23 |
| 67. | Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra | 20 |
| 68. | Dr. Ram Manohar Lohia Avadh University, Faizabad, Uttar Pradesh | 13 |
| 69. | Gujarat University, Ahmedabad, Gujarat | 16 |
| 70. | Gulbarga University, Gulabarga, Karnataka | 19 |
| 71. | Guru Jambheshwar University of Science & Technology, Hisar, Haryana | 18 |
| 72. | Gurukula Kangri vishwavidyalaya, Haridwar, Uttarakhand | 16 |
| 73. | Hemchandracharya North Gujarat University, North Gujarat, Gujarat | 19 |
| 74. | Hemwati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand | 16 |
| 75. | Himachal Pradesh University, Shimla, Himachal Pradesh | 20 |
| 76. | Guru Gobind Singh Indraprastha University, Delhi, Delhi | 18 |
| 77. | Jawaharlal Nehru Technological University, Hyderabad, Andhra | 16 |

| | Pradesh | |
|---|---|---|
| 78. | Kakatiya University, Warangal, Andhra Pradesh | 17 |
| 79. | Kalyani University, Kalyani, West Bengal | 18 |
| 80. | Kumaun University, Nainital, Uttarakhand | 16 |
| 81. | Maharshi Dayanand University Rohtak, Rohtak, Haryana | 18 |
| 82. | Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu | 18 |
| 83. | Mohanlal Sukhadia University, Udaipur, Rajasthan | 19 |
| 84. | Nagaland University, Kohima, Nagaland | 23 |
| 85. | Acharya Nagarjuna University, Nagarjunanagar, Andhra Pradesh | 17 |
| 86. | North Maharashtra University, Jalgaon, Maharashtra | 18 |
| 87. | Rani Durgavati Vishwavidyalaya, Jabalpur, Madhya Pradesh | 15 |
| 88. | Sambalpur University, Sambalpur, Orissa | 20 |
| 89. | Saurashtra University, Rajkot, Gujarat | 21 |
| 90. | Veer Narmad South Gujarat University, Surat, Gujarat | 19 |
| 91. | Sri Sathya Sai Institute of Higher Learning, Anantapur, Andhra Pradesh | 18 |
| 92. | Sri Venkateswara University, Tirupati, Andhra Pradesh | 20 |
| 93. | Tripura University, Agartala, Tripura | 23 |
| 94. | University of Burdwan, Burdwan, West Bengal | 20 |
| 95. | University of Lucknow, Lucknow, Uttar Pradesh | 19 |
| 96. | Utkal University, Bhubaneshwar, Orissa | 19 |
| 97. | Vidyasagar University, Midnapore, West Bengal | 19 |
| 98. | Visva-Bharati, Birbhum, West Bengal | 20 |
| | **Phase III** | |
| 99. | Alagappa University, Dist-Sivanganga, Tamil Nadu | 15 |
| 100. | Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh | 9 |
| 101. | Bharati Vidyapeeth, , Maharashtra | 9 |
| 102. | Barkatullah University, , Madhya Pradesh | 11 |
| 103. | The English And Foreign Languages University, Hyderabad, Andhra Pradesh | 11 |
| 104. | Central University of Tibetan Studies, Varanasi, Uttar Pradesh | 5 |
| 105. | Deccan College Post-Graduate and Research Institute, , Maharashtra | 5 |
| 106. | Deen Dayal Upadhyaya Gorakhpur University, , Uttar Pradesh | 6 |
| 107. | Dr. Bhim Rao Ambedkar University, Agra, Uttar Pradesh | 8 |
| 108. | Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh | 8 |
| 109. | Gokhale Institute of Politics and Economics, Pune, Maharashtra | 11 |
| 110. | Gandhigram Rural University, Dindigul, Tamil Nadu | 10 |
| 111. | Guru Ghasidas University, Bilaspur, Chhatisgarh | 10 |
| 112. | Gujarat Vidyapith, Ahmedabad, Gujarat | 6 |
| 113. | Indira Kala Sangeet Vishwavidyalaya, Khairagarh, Chhatisgarh | 5 |
| 114. | Jai Narain Vyas University, Jodhpur, Rajasthan | 5 |
| 115. | Jain Vishva Bharati University, Dist. Nagaur, Rajasthan | 6 |
| 116. | Kameshwara Singh Darbhanga Sanskrit University, Darbhanga, Bihar | 7 |
| 117. | Kannada University, Kamalpura; Bellary District, Karnataka | 6 |
| 118. | Lalit Narayan Mithila University, Darbhanga, Bihar | 5 |

| 119. | Magadh University, , Bihar | 5 |
|---|---|---|
| 120. | Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra | 6 |
| 121. | Mahatma Gandhi Kashi Vidyapeeth, , Uttar Pradesh | 5 |
| 122. | Maulana Azad National Urdu University, Hyderabad, Andhra Pradesh | 9 |
| 123. | Mizoram University, Aizwal, Mizoram | 23 |
| 124. | Mahatma Gandhi Chitrakoot Gramoday Vishwavidalaya, Chitrakoot, Madhya Pradesh | 8 |
| 125. | Maharshi Dayanand Saraswati University, Ajmer, Rajasthan | 5 |
| 126. | MJP Rohilkhand University, Bareilly, Uttar Pradesh | 5 |
| 127. | Mother Teresa Womens University, , Tamil Nadu | 6 |
| 128. | Potti Sreeramulu Telugu University, Hyderabad, Andhra Pradesh | 5 |
| 129. | Ranchi University, Ranchi, Jharkhand | 9 |
| 130. | Rabindra Bharati University, Kokatta, West Bengal | 5 |
| 131. | Janardan Rai Nagar Rajasthan Vidyapeeth University, Udaipur, Rajasthan | 5 |
| 132. | Rashtriya Sanskrit Vidyapeeth, , Andhra Pradesh | 5 |
| 133. | Sampurnanand Sanskrit University, Varanasi, Uttar Pradesh | 5 |
| 134. | Shri Lal Bahadur Shashtri  Rashtriya Sanskrit Vidyapeeth, Katwaria Sarai, Delhi | 5 |
| 135. | Shri Padmavati Mahila Vishvavidyalayam, Chittoor, Andhra Pradesh | 5 |
| 136. | Sri Chandrasekharendra Saraswathi Viswa Maha Vidyalaya, Kanchipuram, Tamil Nadu | 5 |
| 137. | Sri Krishnadevraya University, Anantapur, Andhra Pradesh | 8 |
| 138. | Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra | 7 |
| 139. | SNDT Women's University, New marine Line ; Mumbai, Maharashtra | 9 |
| 140. | Tamil University, Thanjavur, Tamil Nadu | 5 |
| 141. | Tilak Maharashtra University, Pune, Maharashtra | 5 |
| 142. | Tata Institute of Social Sciences, Deonar ; Mumbai, Maharashtra | 12 |
| 143. | VBS Purvanchal University, Jaunpur, Uttar Pradesh | 5 |
| 144. | Vikram University, , Madhya Pradesh | 8 |
| 145. | Kannur University, Kannur, Kerala | 7 |
| 146. | Sikkim University, Gangtok, Sikkim | 23 |
| 147. | Yashwantrao Chavan Maharashtra Open University, Nashik, Maharashtra | 5 |
| 148. | Sree Sankaracharya University of Sanskrit, Ernakulam, Kerala | 6 |
| 149. | Periyar University, Salem, Tamil Nadu | 8 |
| 150. | Bengal Engineering & Science University, Howrah, West Bengal | 8 |
| 151. | Dr. Babasaheb Ambedkar Technology University, Lonere, Maharashtra | 9 |
| 152. | Central University of Gujarat, Gandhinagar, Gujarat | 9 |
| 153. | Institute of Chemical Technology, Mumbai, Maharashtra | 10 |
| 154. | Central University of Karnataka, Gulbarga, Karnataka | 10 |
| 155. | Central University of Kashmir, Srinagar, Jammu and Kashmir | 10 |

| 156. | Central University of Rajasthan, Ajmer, Rajasthan | 10 |
|------|---|---|
| 157. | Central University of Bihar, Patna, Bihar | 9 |
| 158. | Central University of Jharkhand, Ranchi, Jharkhand | 10 |
| 159. | Central University of Kerala, Kasaragod, Kerala | 9 |
| 160. | Central University of Punjab, Bhatinda, Punjab | 9 |
| 161. | West Bengal University of Technology, Saltlake, West Bengal | 8 |
| 162. | Central University of Tamil Nadu, Tiruvarur, Tamil Nadu | 8 |
| 163. | Central University of Himachal Pradesh, Dist Kangra, Himachal Pradesh | 8 |
| 164. | Central University of Haryana, Dist- Mahendergarh, Haryana | 9 |
| 165. | Deenbandhu Chhotu Ram University of Science & Technology, Sonepat, Haryana | 8 |
| 166. | Gitam University, Visakhapatnam, Andhra Pradesh | 6 |
| 167. | Shri Mata Vaishno Devi University, , Jammu and Kashmir | 8 |
| 168. | Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh | 9 |
| 169. | Dharmasinh Desai University, Nadiad, Gujarat | 9 |
| 170. | Doon University, Dehradun, Uttarakhand | 9 |
| 171. | Bhagat Phool Singh Mahila Vishwavidyalaya, Sonepat, Haryana | 12 |
| 172. | Ravenshaw University, Cuttack, Orissa | 8 |
| 173. | Dravidian University, Chittoor Dist, Andhra Pradesh | 6 |
| 174. | Davangere University, Davangere, Karnataka | 8 |
| 175. | Chaudhary Devi Lal University, Sirsa, Haryana | 8 |
| 176. | Central University of Orissa, Koraput, Orissa | 3 |
| 177. | Karnataka State Women's University, Bijapur, Karnataka | 4 |
| | **IUCs & Other Institutes** | |
| 178. | Inter University Centre for Astonomy and Astro Physics, Pune, Maharashtra | 11 |
| 179. | Inter University Accelerator Centre, New Delhi, Delhi | 10 |
| 180. | UGC-DAE Consortium for Scientific Research., Indore, Madhya Pradesh | 10 |
| 181. | Indian Institute of Advanced Studies, Shimla, Himachal Pradesh | 10 |
| 182. | National Assessment and Accreditation Council (NAAC), Bangalore, Karnataka | 2 |
| | **National Law Schools/Universities** | |
| 183. | National Law School of India University, Bengaluru, Karnataka | 6 |
| 184. | Chanakya National law University, Patna, Bihar | 3 |
| 185. | National Law University, Jodhpur, Mandore, Jodhpur, Rajasthan | 3 |
| 186. | Rajiv Gandhi National University of Law, Punjab, The Mall, Patiala, Punjab | 3 |
| 187. | NALSAR University of Law, Hyderabad, Andhra Pradesh | 3 |
| 188. | National Law Institute University, Bhopal, Bhopal, Madhya Pradesh | 3 |
| 189. | Gujarat National Law University, Gandhinagar, Gujarat | 3 |
| 190. | The WB National University of Juridical Sciences, Kolkata, West Bengal | 3 |
| 191. | Hidayatullah National Law University, Raipur, Chhatisgarh | 3 |
| 192. | Dr. Ram Manohar Lohiya National Law University, Lucknow, Uttar Pradesh | 3 |

| 193. | National University of Advanced Legal Studies, Kochi, Kerala | 3 |
|------|---------------------------------------------------------------|---|
| 194. | Tamilnadu Dr. Ambedkar Law University, Chennai, Tamil Nadu | 3 |
| 195. | National Law University, Cuttack, Cuttack, Orissa | 3 |
| 196. | National Law University, New Delhi, , Delhi | 3 |

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| 2 | American Institute of Physics@ | http://journals.aip.org/ | 18 | 105 | I & II |
| 3 | American Physical Society | http://publish.aps.org/browse.php | 10 | 105 | I & II |
| 4 | Annual Reviews | http://arjournals.annualreviews.org/ | 33 | 103 | I & II |
| 5 | Blackwell-Wiley | http://www3.interscience.wiley.com/ | 908 | 108 | I & II |
| 6 | Cambridge University Press | http://journals.cambridge.org/ | 224 | 118 | I & II |
| 7 | Science Direct(10 Subject Collections)@ | http://www.sciencedirect.com/ | 1036 | 61 | I & II |
| 8 | Economic & Political Weekly | http://epw.in/ | 1 | All | I, II & III |
| 9 | Emerald – Lib. Sci. Collection | http://www.emeraldinsight.com/ | 29 | 67 | I & II |
| 10 | Institute of Physics | http:// iopscience.iop.org / | 46 | 115 | I & II |
| 11 | JSTOR | http://www.jstor.org/ | 2073 | 116 | I, II & III |
| 12 | Nature | http://www.nature.com/ | 1 | 69 | I & II |
| 13 | Oxford University Press | http://www.oxfordjournals.org | 206 | 121 | I, II & III |
| 14 | Portland Press | http://www.portlandpress.com/pp/default.htm | 8 | 57 | I & II |
| 15 | Project Euclid | http://projecteuclid.org/ | 35 | 57 | I & II |
| 16 | Project Muse | http://muse.jhu.edu/journals | 493 | 101 | I & II |
| 17 | Royal Society of Chemistry@ | http://www.rsc.org/Publishing/Journals | 29 | 103 | I, II & III |
| 18 | SIAM Journals@ | http://epubs.siam.org/ | 14 | 50 | I |
| 19 | Springer Link | http://www.springerlink.com/ | 1763 | 171 | I, II & III |
| 20 | Taylor & Francis | http://www.tandfonline.com/ | 1173 | 133 | I, II & III |
| | **Bibliographic Databases** | | | | |
| 21 | JCCC | http://jccc-infonet.in/ | | ALL | I, II & III |
| 22 | MathSciNet | http://www.ams.org/mathscinet | | 57 | I & II |
| 23 | ISID | http://isid.org.in/ | | ALL | I, II & III |
| 24 | SciFinderScholar | http://www.cas.org/ | | 31 | I & II |
| 25 | RSC Dartabases(6) | http://www.rsc.org/ | | 103 | I & II |
| 26 | Web of Science* | http://isiknowledge.com/ | | 100 | I |
| | **Legal Databases ^** | | | | |
| 27 | HeinOnline | http://home.heinonline.org/ | | 14 | |
| 28 | Manupatra | http://www.manupatra.com/ | | 14 | |
| 29 | Westlaw India | http://www.westlawindia.com/ | | 14 | |

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Raipur, Chattisgarh
**(Nominee State University)**

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Dept. of Computer Science
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**Shri Manoj Kumar K**
Scientist-D (CS)
INFLIBNET Centre
Ahmedabad, Gujarat
**(Member: Sr.Scientist)**

## Universities where UGC –Infonet Connevtivity was withdrawn after getting NKN/NME-ICT Connection

| SI | PO | University Name |
|---|---|---|
| | | **NKN/NME-ICT Connected Universities Disconnected in 2010-2011** |
| 1 | NKN-10 | Acharya Nagarjuna University, Nagarjunanagar, Guntur,Andhra Pradesh |
| 2 | 2 | Andhra University, Visakhapatnam, AP |
| 3 | NKN-1 | Anna University, Tamil Nadu |
| 4 | 4 | Assam University, Silchar, Assam |
| 5 | 5 | Avinashilingam University for Women, Coimbatore, Tamil Nadu |
| 6 | 10 | Banasthali Vidyapith, Banasthali, Rajasthan |
| 7 | 12 | Barkatullah University, Bhopal, Madhya Pradesh |
| 8 | 13 | Bengal Engineering & Science University, Howrah, West Bengal |
| 9 | 15 | Bharathiar University, Coimbatore, Tamil Nadu |
| 10 | 18 | Bhavnagar University, Bhavnagar, Gujarat |
| 11 | 21 | Bundelkhand University, Jhansi, UP |
| 12 | 23 | Central Institute of Higher Tibetan Studies, Varanasi, UP |
| 13 | 24 | Chaudhary Charan Singh University, Meerut, UP |
| 14 | 25 | Chhatrapati Shahu Ji Maharaj Kanpur University, Kanpur, UP |
| 15 | 26 | Cochin University of Science & Technology, Cochin, Kerala |
| 16 | 40 | Gujarat University, Ahmedabad, Gujarat |
| 17 | 42 | Gulbarga University, Gulabarga, Karnataka |
| 18 | 46 | Guru Nanak Dev University, Amritsar, Punjab |
| 19 | 53 | Jai Narain Vyas University, Jodhpur, Rajasthan |
| 20 | 59 | Kakatiya University, Warangal, Andhra Pradesh |
| 21 | 62 | Kannada University, Kamalpura, Karnataka |
| 22 | 63 | Kannur University, Kannur Dist., Kerala |
| 23 | 64 | Karnatak University, Dharwad, Karnataka |
| 24 | 65 | Kumaun University, Nainital, Uttranchal |
| 25 | 66 | Kurukshetra University, Kurukshetra, Haryana |
| 26 | 71 | Maharaja Sayajirao University of Baroda, Vadodara, Gujarat |
| 27 | 73 | Maharshi Dayanand University, Rohtak, Haryana |
| 28 | 78 | Mangalore University, Mangalore, Karnataka |
| 29 | 83 | MJP Rohilkhand University, Bareilly, UP |
| 30 | 88 | North Eastern Hill University, Shillong, Meghalaya |

| 31 | 96 | Punjabi University, Patiala, Punjab |
|----|-----|-------------------------------------|
| 32 | 103 | Rashtriya Sanskrit Vidyapeeth, Tirupati, Andhra Pradesh |
| 33 | 106 | Sant Gadge Baba Amravati University, Amravati, Maharashtra |
| 34 | 107 | Sardar Patel University, Vallabh Vidyanagar, Gujarat |
| 35 | 108 | Saurashtra University, Rajkot, Gujarat |
| 36 | 109 | Shivaji University, Kolhapur, Maharashtra |
| 37 | 112 | Shri Padmavati Mahila Vishvavidyalayam, Chittoor, Andhra Pradesh |
| 38 | 115 | Sri Chandresekharendra Saraswati Viswa Mahavidyalaya, Kanchipuram, |
| 39 | 118 | Sri Venkateswara University, Tirupati, Andhra Pradesh |
| 40 | 119 | Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra |
| 41 | 127 | University of Allahabad, Allahabad, UP |
| 42 | 128 | University of Burdwan, Burdwan, West Bengal |
| 43 | 129 | University of Calicut, Kozhikode, Kerala |
| 44 | 133 | University of Kerala, Thiruvanathapuram, Kerala |
| 45 | 134 | University of Lucknow, Lucknow, Uttar Pradesh |
| 46 | 135 | University of Madras, Chennai, Tamil Nadu |
| 47 | 137 | University of Mysore, Mysore, Karnataka |
| 48 | 140 | Utkal University, Bhubneshwar, Orissa |
| 49 | 141 | VBS Purvanchal University, Jaunpur, UP |
| 50 | 143 | Vidyasagar University, Midnapore, West Bengal |
| 51 | 145 | Vinoba Bhave University, Hazaribag, Jharkhand |
| 52 | 147 | Yashwantrao Chavan Maharashtra Open Univ., Nashik, Maharashtra |
| 53 | 148 | Deendayal Upadhyaya Gorakhpur University, Gorakhpur, UP |
| 54 | 164 | Central University of Tamilnadu, Thiruvarur |
| 55 | 166 | Central University of Punjab, Bathinda. |
| 56 | 170 | Central University of Jharkhand, Ranchi |
| 57 | 173 | Central University of Gujarat, Gandhinagar. |
| 58 | 32 | Dr.Bhim Rao Ambedkar University ,Agra ,UP. |
| 59 | 60 | Jawaharlal Nehru Technological University, Hyderabad, Andhra Pradesh |
| 60 | 81 | Maulana Azad National Urdu University, Hyderabad-500803. |
| 61 | 90 | Osmania University, Hyderabad-500007. |
| 62 | 35 | The English and Forreign Languages University, Hyderabad-500007. |
| 63 | 29 | Dibrugrah University, Dibrugrah-78004 |
| 64 | 91 | Patna University, Patna-800005 |
| 65 | 48 | Hemchandraacharya North Gujarat University, P.B. No. 21, University |

| 66 | 142 | South Gujarat University, Surat-395007, |
|---|---|---|
| 67 | 162 | Central University of Karnataka, Karnataka (Central Univrsity) |
| 68 | 67 | Kuvempu University, Shankaraghatta-577451) |
| 69 | 77 | Mahatma Gandhi University, Kottayam-686560 |
| 70 | 114 | Shree Shankaracharya University of Sanskrit, Kalady |
| 71 | 28 | Devi Ahilya Vishwavidyalaya, Indore -452001 |
| 72 | 6 | Awadesh Pratap Singh University, Rewa-486006 |
| 73 | 58 | Jiwaji University, Gwalior-474011 |
| 74 | 75 | M.G. Gramodaya Vishwavidyalaya, Chitrakoot-485331, District Satna |
| 75 | 30 | Dr. Babasaheb Ambedka Marathwada University, Aurangabad-431004 |
| 76 | 31 | Dr. Babasaheb Ambedkar Technological University, Lonere-402103 |
| 77 | 86 | Nagaland University, Nagaland-797001 (Central University) |
| 78 | 14 | Berhampur University, Berhampur -760007 |
| 79 | NKN-5 | Punjab University, Chandigarh-160014 |
| 80 | 37 | Gandhigram Rural Institute, Gandhigram-624302. (Deemed University) |
| 81 | 69 | Madurai Kamraj University, Madurai-625021 |
| 82 | 85 | MotherTeresa Women's University, Kodaikanal-624102 |
| 83 | 1 | Alagappa University, Alagappa Nagar, Karaaikudi-630003 |
| 84 | 80 | Manonmaniam Sundarnar University, Thirunelveli-627012. |
| 85 | 93 | Pondicherry University, Pondicherry |
| 86 | 149 | Tamilnadu Dr. Ambedkar Law University, Chennai-600028 |
| 87 | 9 | Banaras Hindu University, Varanasi-221005 (Central University) |
| 88 | 60 | Kalyani University, Kalyani-741235 |
| 89 | 151 | West Bengal University of Technology, salt lake,Kolkata-700064 |
| 90 | 97 | Rabindra Bharati University, Kolkata-700050 |

**NKN/NME-ICT Connected Universities Disconnected on 30th March 2011 & 30th April 2011**

| SI | PO | University Name |
|---|---|---|
| 1 | 87 | National Law School of India University, Bangalore, Karnataka |
| 2 | 92 | Periyar University, Salem-636011 |
| 3 | 94 | Potti Sreeramulu Telugu University, Hyderabad, Andhra Pradesh |
| 4 | 36 | Gauhati University, Gauhati, Assam |
| 5 | 8 | Babasaheb Bhimrao Ambedkar Bihar University, Muzaffarpur, Bihar |
| 6 | 70 | Magadh University, Bodh Gaya, Bihar |

| 7 | 41 | Gujarat Vidyapith, Ahmedabad,Gujarat |
|---|---|---|
| 8 | 154 | Chaudhary Devi Lal University,Sirsa,Haryana |
| 9 | 132 | University of Kashmir, Srinagar, J&K |
| 10 | 20 | Birla Institute of Technology, Ranchi, Jharkhand |
| 11 | 169 | Central University of Kerala, Kasargod |
| 12 | 144 | Vikram University, Ujjain, Madhya Pradesh |
| 13 | 89 | North Maharashtra University, Jalgaon, Maharashtra |
| 14 | 126 | Tripura University, Agartala, Tripura |
| 15 | 82 | Mizoram University, Aizwal, Mizoram |
| 16 | 79 | Manipur University, Imphal, Manipur |
| 17 | 104 | Sambalpur University, Sambalpur, Orissa |
| 18 | 72 | Maharshi Dayanand Saraswati University, Ajmer, Rajasthan |
| 19 | 84 | Mohanlal Sukhadia University, Udaipur, Rajasthan |
| 20 | 17 | Bharatidasan University, Tiruchirapalli, Tamil Nadu |
| 21 | 52 | Jadavpur University, Kolkata, West Bengal |
| 22 | 146 | Vishvabharati, Santiniketan, West Bengal |
| 23 | 117 | Sri Sathya Sai Institute of Higher Learning, Anantapur, Andhra Pradesh |
| 24 | 68 | Lalit Narayan Mithila University, Darbhanga, Bihar |
| 25 | 100 | Ranchi University, Ranchi, Jharkhand |
| 26 | 153 | Karnataka State Women's University, Bijapur, Karnataka |
| 27 | 101 | Rani Durgavati Vishwavidyalaya, Jabalpur, Madhya Pradesh |
| 28 | 74 | Mahatma Gandhi Antarrashtriya Hindi Vishwavidyala, Vardha, Maharashtra |
| 29 | 38 | Goa University, Goa |
| 30 | 99 | Rajiv Gandhi University, Itanagar, Arunachal Pradesh |
| 31 | 76 | Mahatma Gandhi Kashi Vidyapeeth, Varanasi, UP |
| 32 | 105 | Sampurnanand Sanskrit University, Varanasi, UP |

| NKN/NME-ICT Connected Universities Disconnected on 30th June 2011 | | |
|---|---|---|
| SI | PO | University Name |
| 1 | 158 | Inter University Centre for Astronomy & Astrophysics, Pune, Maharashtra |
| 2 | NKN-7 | Jammu University, Jammu Tawi, J & K |
| 3 | 131 | University of Hyderabad, Hyderabad, Andhra Pradesh |
| 4 | NKN-9 | Babasaheb Bhimrao Ambedkar University, Lucknow, UP |
| 5 | 139 | University of Pune, Pune, Maharashtra |

| 6 | NKN-2 | Jawaharlal Nehru University, New Delhi |
|---|---|---|
| 7 | 160 | UGC-DAE Consortium for Scientific Research, Indore, Madhya Pradesh |
| 8 | 159 | Consortium for Educational Communication,New Delhi |
| 9 | 157 | Inter University Accelerator Centre( Formerly Nuclear Science Centre), New Delhi |
| 10 | 56 | Jamia Millia Islamia, New Delhi |
| 11 | 44 | Guru Gobind Singh Indraprastha University, Delhi |

| NKN/NME-ICT Connected Universities Disconnected on 31st Aug 2011 | | |
|---|---|---|
| SI | PO | University Name |
| 1 | 123 | Thapar University, Patiala, Punjab |
| 2 | 3 | Annamalai University, Annamalainagar, Tamil Nadu |
| 3 | 11 | Bangalore University, Bangalore, Karnataka |
| 4 | 33 | Dr. Ram Manohar Lohia Avadh University, Faizabad, UP |
| 5 | 120 | Tamil University, Thanjavur, Tamil Nadu |
| 6 | 138 | University of North Bengal, Darjeeling, Uttranchal |
| 7 | 152 | Sikkim University, Gangtok, Sikkim |
| 8 | 50 | Himachal Pradesh University, Shimla, Himachal Pradesh |
| 9 | 47 | Gurukula Kangri Vishwavidyalaya, Hardwar, Uttranchal |
| 10 | 49 | Hemawati Nandan Bahuguna Garhwal University, Srinagar, Uttranchal |
| 11 | 116 | Sri Krishnadevraya University, Anantapur, Andhra Pradesh |
| 12 | 45 | Guru Jambheshwar University, Hisar, Haryana |
| 13 | 95 | Pt. Ravishankar Shukla University, Raipur, Chhattisgarh |
| 14 | 125 | Tilak Manjhi Bhagalpur University, Bhagalpur, Bihar |
| 15 | 7 | B.N. Mandel University, Madhepura, Bihar |
| 16 | 61 | Kameshwara Singh Darbhanga Sanskrit University, Darbhanga, Bihar |

| NKN/NME-ICT Connected Universities Disconnected on 15th Sep 2011 | | |
|---|---|---|
| SI | PO | University Name |
| 1 | 121 | Tata Institute of Social Sciences, Mumbai, Maharashtra |
| 2 | 98 | Rajasthan Vidyapith, Udaipur, Rajasthan |
| 3 | 113 | SNDT Womens University, Mumbai, Maharashtra |
| 4 | 136 | University of Mumbai, Mumbai, Maharashtra |
| 5 | 111 | Shri Lal Bahadur Shashtri Rashtriya Sanskrit Vidyapeeth, New Delhi |

| 6 | 55 | Jamia Hamdard University, New Delhi |
|---|---|---|
| 7 | 155 | Institute Chemical Technology, Mumbai |

### NKN/NME-ICT connected Universities Disconnected on 31st Oct 2011

| SI | PO | University Name |
|---|---|---|
| 1 | 172 | Central University of Himanchal Pradesh, Shimla |
| 2 | 102 | Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra |
| 3 | 171 | Central University of Jammu & Kashmir, Srinagar |

### NKN/NME-ICT Connected Universities disconnected on 31st Dec 2011

| SI | PO | University Name |
|---|---|---|
| 1 | 122 | Tezpur University, Tezpur, Assam |
| 2 | 161 | National Assessment and Accreditation Council(NAAC), Bangalore |
| 3 | 165 | Central University of Rajasthan, J.L.N. Marg, Jaipur |
| 4 | 163 | Central University of Bihar, O. B. V. College, Patna |

### List of Universities without NKN/NME-ICT connectivity on 31st March 2012 and disconnected from UGC Infonet

| SI | PO | University Name |
|---|---|---|
| 1 | 16 | Bharati Vidyapeeth, Pune, Maharshtra |
| 2 | 19 | Birla Institute of Technology & Science, Pilani, Rajasthan |
| 3 | 27 | Deccan College Post Graduate & Research Institute, Pune, Maharashtra |
| 4 | 39 | Gokhale Institute of Politics & Economics, Pune, Maharashtra |
| 5 | 43 | Guru Ghasidas University, Bilaspur, Chhatisgarh |
| 6 | 51 | Indira Kala Sangeet Vishwavidyalaya, Khairagarh, Chattisgarh |
| 7 | 54 | Jain Vishwa Bharati Institute, Ladnun, Dist. Nagaur, Rajasthan |
| 8 | 110 | Shri Jaganath Sanskrit Visvadyalaya, Puri, Orissa |
| 9 | 124 | Tilak Maharashtra Vidyapeeth, Pune, Maharashtra |
| 10 | 168 | Central University of Orissa, Bhubaneswar |
| 11 | 34 | Dr.Harisingh Gaur Vishwavidyalaya, Sagar, Madhya Pradesh |
| 12 | 150 | The WB National University of Juridical Sciences, Kolkata |
| 13 | 167 | Central University of Haryana, Gurgaon |
| 14 | 161 | National Assessment and Accreditation Council (NAAC) |

| University having NKN Connection prior to Switching over from ERNET to BSNL | | |
|---|---|---|
| SI | PO | University Name |
| 1 | NKN-8 | Dayalbaugh Educational Institute, Agra, UP |
| 2 | NKN-3 | University of Delhi, Delhi |
| 3 | NKN-6 | Aligarh Muslim University, Aligarh, UP |
| 4 | NKN-4 | University of Rajasthan, Jaipur, Rajasthan |

Appendix XVI

RECEIPT & PAYMENT

(Amount–Rs.)

| ACCOUNT HEAD | F.Y. 2011-2012 (Current Year) | | F.Y. 2010-2011 (Previous Year) | |
|---|---|---|---|---|
| | Receipt | Payment | Receipt | Payment |
| Cash on Hand(Op. Balance) | 32,000.00 | - | 32,000.00 | 0.00 |
| Bank Balance(Op. Balance)SBI,Guj, Uni.Br,-A/c No. 10298781250 | 8,577,762.77 | - | 1,906,847.77 | 0.00 |
| Bank Balance(Op. Balance)SBI,GUj. Uni.Br,A/c No. 10298782049 | 4,701,661.42 | - | 2,074,758.42 | 0.00 |
| Cash on Hand(Cl.Balance) | - | 32,000.00 | 0.00 | 32,000.00 |
| Bank Balance (Cl. Balance)SBI,Guj. Uni.Br-SB A/c-10298781250 | - | 6,439,391.25 | 0.00 | 8,577,762.77 |
| Bank Balance (Cl. Balance)SBI,Guj. Uni.Br-SB A/c-10298782049 | - | 2,381,745.42 | 0.00 | 4,701,661.42 |
| Advertisement Exps. | - | - | 0.00 | 335,414.00 |
| Associate Members A/c. | 35,821,316.70 | 12,679,195.99 | 22,109,102.00 | 23,060,134.21 |
| Associate Membership Fee | 560,000.00 | - | 450,000.00 | 25,000.00 |
| Audit Fee | - | 32,000.00 | 0.00 | 32,000.00 |
| Automation of Gujarat University Library | - | 240,960.00 | 200,075.00 | 78,697.00 |
| Bank Charges | - | 15,238.00 | 0.00 | 14,313.00 |
| Bonus | - | 34,540.00 | 0.00 | 33,101.00 |
| Books & Journals | - | 117,810.00 | 0.00 | 102,490.00 |
| Building Committee Meeting Exps. | - | 215,927.00 | 0.00 | 206,713.00 |
| Building Maintenance | - | 159,890.00 | 0.00 | 58,490.00 |
| CALIBER-2011 | - | 304,995.00 | 22,039.00 | 562,839.00 |
| Canteen Account | 116,433.00 | 121,240.00 | 82,614.00 | 81,539.00 |
| Canteen Subsidy | - | 54,950.00 | 0.00 | 32,045.00 |
| Car Loan Advance | 172,000.00 | 180,000.00 | 35,000.00 | 180,000.00 |
| Cash Contra | 6,461,222.00 | 6,461,222.00 | 681,698,263.00 | 681,698,263.00 |
| Cochin University of Science & Technology | - | - | 1,772,370.00 | 1,704,831.00 |
| Computer Software | - | - | 0.00 | 31,500.00 |
| Computers | 7,394,236.00 | 1,928,742.00 | 0.00 | 475,381.00 |
| Conference & Symposium | - | 287,800.00 | 0.00 | 142,485.00 |
| Consumable,Stores&Spares | - | 340,991.00 | 0.00 | 142,362.00 |
| Conveyance Charges | - | 2,942.00 | 0.00 | 4,380.00 |
| Dearness Allowance(Admn. Staff) | - | 1,150,669.00 | 0.00 | 1,039,312.00 |
| Dearness Allowance (Technical Staff) | - | 2,713,075.00 | 0.00 | 1,619,444.00 |
| Earnest Money deposit | 3,274,000.00 | 3,043,500.00 | 1,189,520.00 | 1,189,520.00 |
| Electrical Maintenance | 879.00 | 31,515.00 | 1,310.00 | 16,586.00 |
| Electricity charges | - | 870,400.00 | 0.00 | 867,427.00 |
| Entertainment Exps. | - | 106,356.00 | 0.00 | 124,277.00 |
| Equipment Maintenance | - | 183,602.00 | 0.00 | 331,942.00 |
| CARRIED FORWARD | 67,111,510.89 | 40,130,696.66 | 711,573,899.19 | 727,501,909.40 |

Information and Library Network Centre, (An IUC of UGC)

Page No. : 31

(Amount–Rs.)

## RECEIPT & PAYMENT

| ACCOUNT HEAD | F.Y. 2011-2012 (Current Year) | | F.Y. 2010-2011 (Previous Year) | |
|---|---|---|---|---|
| | Receipt | Payment | Receipt | Payment |
| BROUGHT FORWARD | 67,111,510.89 | 40,130,696.66 | 711,573,899.19 | 727,501,909.40 |
| E-Content A/c. | - | 5,060.00 | 0.00 | 0.00 |
| ETD A/c. | - | 119,488.00 | 0.00 | 25,000.00 |
| Festival Advance | 32,250.00 | 33,750.00 | 27,000.00 | 27,000.00 |
| Foreign Travelling Exps. | - | - | 0.00 | 37,474.00 |
| Franking Machine Advance | 169,135.00 | 175,000.00 | 169,883.00 | 179,530.00 |
| Furniture & Fixture | 179,149.00 | 108,478.00 | 0.00 | 0.00 |
| G.B.Meeting Exps. | - | 287,729.00 | 0.00 | 738,839.00 |
| Garden Exps. | - | 9,052.00 | 0.00 | 3,230.00 |
| General Advance | 2,089,093.00 | 1,940,054.00 | 2,606,237.00 | 12,872,067.00 |
| General Repairs & Maintenance | - | 70,602.52 | 10,937.00 | 116,796.00 |
| Grade Pay( Admn. Staff) | - | 458,600.00 | 0.00 | 501,600.00 |
| Grade Pay/Special Allowance (Tech. Staff) | - | 1,065,800.00 | 0.00 | 729,600.00 |
| Group Insurance Saving Scheme | 85,174.00 | 61,578.00 | 50,579.00 | 50,579.00 |
| GRUH Finance LTD. | 39,168.00 | 39,168.00 | 37,788.00 | 37,788.00 |
| Guest House Caretaking charges | - | 103,100.00 | 454.00 | 55,454.00 |
| Honorarium Exps. | - | 136,000.00 | 0.00 | 96,300.00 |
| Hostel charges | 36,110.00 | - | 15,745.00 | 2,800.00 |
| Hostel Maintenance | - | 13,372.00 | 18,000.00 | 24,454.00 |
| House Building Advance | 35,400.00 | - | 35,400.00 | 0.00 |
| House Rent Allowance ( Admn. Staff) | - | 422,850.00 | 0.00 | 587,304.00 |
| House Rent Allowance( Technical Staff) | - | 801,564.00 | 0.00 | 455,796.00 |
| Income Tax | 1,264,667.00 | 1,264,667.00 | 5,804,605.00 | 5,804,605.00 |
| Excess amount of Associate Members Subscription A/c. | 1,305,169.99 | 187,473.70 | 3,201,471.21 | 0.00 |
| INFLIBNET Centre Employees P.F.Account | 998,252.00 | 998,252.00 | 2,838,058.00 | 2,845,611.00 |
| INFLIBNET Employees Co-Op. Credit Society Ltd. | 320,580.00 | 320,580.00 | 287,891.00 | 287,891.00 |
| INFLIBNET Sports& Recreation club | 1,320.00 | 1,320.00 | 1,420.00 | 1,420.00 |
| Institutional Membership Fee | - | 58,240.00 | 0.00 | 88,570.00 |
| Interest A/c. | 57,754,561.00 | - | 24,482,792.00 | 0.00 |
| Interest on Car Loan | 21,371.00 | - | 0.00 | 0.00 |
| Interest on Scooter Loan | 10,919.00 | - | 2,004.00 | 0.00 |
| Investment in Fix Deposits | 2,781,689,007.00 | 2,359,922,228.00 | 443,976,132.00 | 1,199,881,851.00 |
| Katira Construction | 26,479,465.00 | 26,479,465.00 | 1,484,045.00 | 1,484,045.00 |
| Land revenue Exps. | - | 13,500.00 | 0.00 | 13,500.00 |
| CARRIED FORWARD | 2,939,622,301.88 | 2,435,227,667.88 | 1,196,624,340.40 | 1,954,451,013.40 |

Information and Library Network Centre, (An IUC of UGC)                Page No. : 32

DEEPAK JAYANTILAL SHAH & CO.
CHARTERED ACCOUNTANTS

T-12/A, Vikram Chambers
Ashram Road,
Ahmedabad – 380 009
Telephone No.:079 -27546279

## RECEIPT & PAYMENT

(Amount–Rs.)

| ACCOUNT HEAD | F.Y. 2011-2012 (Current Year) | | F.Y. 2010-2011 (Previous Year) | |
|---|---|---|---|---|
| | Receipt | Payment | Receipt | Payment |
| BROUGHT FORWARD | 2,939,622,301.88 | 2,435,227,667.88 | 1,196,624,340.40 | 1,954,451,013.40 |
| Leave Encashment | - | 69,882.00 | 7,983.00 | 292,198.00 |
| Leave Salary Contribution | 41,792.00 | - | 148,451.00 | 0.00 |
| Legal & Professional Exps. | - | - | 0.00 | 19,750.00 |
| L.I.C of india | 100,907.00 | 100,907.00 | 110,016.00 | 110,016.00 |
| LTC Advance | 286,480.00 | 241,530.00 | 502,190.00 | 546,340.00 |
| LTC Expenses | - | 317,801.00 | 0.00 | 690,982.00 |
| Manpower Hiring charges | - | 1,914,744.00 | 0.00 | 2,329,842.00 |
| Miscalleneous Income | 108,582.00 | 84,380.00 | 64,834.00 | 51,740.00 |
| Miscalleneous Exps. | - | 5,562.00 | 0.00 | 12,541.00 |
| Mobilization Advance - Katira | 5,190,000.00 | - | 4,050,000.00 | 0.00 |
| Material Advance | - | 7,340,299.00 | 3,479,894.00 | 5,587,535.00 |
| Networking Exps. | - | 3,000.00 | 0.00 | 0.00 |
| Newsletter Publication Exps. | - | 785,728.00 | 0.00 | 300,855.00 |
| Newspaper & Periodicals Exps. | - | 43,390.00 | 0.00 | 251,593.00 |
| N-LIST A/c. | 211,899,349.00 | 237,820,142.00 | 26,423,500.00 | 1,941,979.00 |
| Office Equipments | 819,923.00 | 132,072.00 | 0.00 | 101,695.00 |
| Office Expenses | - | 157,172.00 | 0.00 | 77,027.00 |
| Office Rent | - | 1,030,000.00 | 0.00 | 1,030,000.00 |
| Overtime Allowance(Admn. Staff) | - | 48.00 | 0.00 | 216.00 |
| P.F. Contribution | - | - | 0.00 | 235,105.00 |
| Pay Commission Arrears | - | 878,202.00 | 0.00 | 738,558.00 |
| Pension & Gratuity | - | 3,891,680.00 | 98,771.00 | 1,460,595.00 |
| Permanent Institutional Building Construction | - | 54,403,827.00 | 26,270,527.00 | 76,208,388.00 |
| Petrol Exps. | - | 68,407.00 | 0.00 | 70,280.00 |
| PLANNER – 2010 | - | 100,000.00 | 0.00 | 9,128.00 |
| Postage & Telegram Exps. | - | 376,801.00 | 0.00 | 265,845.00 |
| Professional Fees | - | 15,500.00 | 0.00 | 0.00 |
| Professional Tax | 99,970.00 | 99,970.00 | 93,430.00 | 93,430.00 |
| R & D Panel | - | - | 0.00 | 84,297.00 |
| R.A. Advance | 27,254,215.00 | 28,202,155.00 | 29,317,546.00 | 39,970,450.00 |
| Recruitment Exps. | - | 475,603.00 | 0.00 | 276,391.00 |
| Regional Training | - | 483,022.00 | 29,880.00 | 383,139.00 |
| Reimbursement of Medicines | 3,130.00 | 1,219,116.00 | 3,130.00 | 1,013,795.00 |
| CARRIED FORWARD | 3,185,426,649.88 | 2,775,488,607.88 | 1,287,224,492.40 | 2,088,604,723.40 |

Information and Library Network Centre, (An IUC of UGC)

Page No. : 33

**RECEIPT & PAYMENT**

(Amount-Rs.)

| ACCOUNT HEAD | F.Y. 2011-2012 (Current Year) | | F.Y. 2010-2011 (Previous Year) | |
|---|---|---|---|---|
| | Receipt | Payment | Receipt | Payment |
| BROUGHT FORWARD | 3,185,426,649.88 | 2,775,488,607.88 | 1,287,224,492.40 | 2,088,604,723.40 |
| Rent for Director Residence | - | 441,000.00 | 30,199.00 | 445,518.00 |
| Retention Money | 4,273,832.00 | - | 5,142,393.00 | 0.00 |
| Revenue Stamps | 552.00 | 552.00 | 529.00 | 529.00 |
| Salaries ( Admn. Staff) | - | 1,952,333.00 | 26,400.00 | 2,166,974.00 |
| Salaries ( Technical Staff) | - | 5,416,028.00 | 24,316.00 | 4,703,698.00 |
| Scientific Equipment | 1,226,967.00 | 158,550.00 | 0.00 | 0.00 |
| Salaries payable | 14,039,610.00 | 14,039,610.00 | 11,584,521.00 | 11,584,521.00 |
| Scooter Loan | 45,904.00 | 30,000.00 | 35,725.00 | 30,000.00 |
| Security Deposit | 2,000.00 | - | 249,942.00 | 249,942.00 |
| Security Expenses | - | 1,675,982.00 | 0.00 | 1,151,770.00 |
| Service Charges to AES Hostel for trainees | - | 475,000.00 | 0.00 | 475,000.00 |
| SOUL Expenses | 19,216,885.00 | 3,217,300.00 | 14,655,350.00 | 2,860,836.00 |
| Staff welfare | - | 9,409.00 | 0.00 | 19,090.00 |
| Stationery & Printing Exps. | - | 332,398.00 | 42,582.00 | 535,615.00 |
| Stock | 54,829.00 | 79,675.00 | 57,614.00 | 54,829.00 |
| Subscription for technical Journals | - | - | 0.00 | 85,416.00 |
| Sundry Deposit | - | 5,000.00 | 150,000.00 | 105,000.00 |
| TDS Receivable | 1,904.00 | 5,062.00 | 0.00 | 0.00 |
| Telephone & Trunk call Exps. | - | 219,233.00 | 87.00 | 256,129.00 |
| Tata Institute of Fundamental Research - Mumabi | - | - | 3,050,535.00 | 2,934,302.00 |
| Tender Fee | 2,200.00 | - | 0.00 | 0.00 |
| Transport Allowance( Admn. Staff) | - | 363,528.00 | 1,620.00 | 339,740.00 |
| Transport Allowance( Technical Staff) | - | 760,480.00 | 0.00 | 435,680.00 |
| Travelling Advance | 87,805.00 | 85,805.00 | 289,911.00 | 269,027.00 |
| Travelling Exps. | 51,262.00 | 1,525,005.00 | 25,534.00 | 2,160,180.00 |
| U.G.C. Grants | 51,233,000.00 | - | 10,275,000.00 | 0.00 |
| U.G.C. Grants for E- Subscription | 1,000,000,000.00 | 1,394,745,552.00 | 1,296,000,000.00 | 638,117,714.00 |
| U.G.C. Grants for North Eastern Region | - | 17,554,194.00 | 0.00 | 3,811,842.00 |
| U.G.C. Grants for Building | - | - | 66,242,000.00 | 0.00 |
| University of Hyderabad | - | 1,873,814.00 | 1,754,275.00 | 141,249.00 |
| U.G.C. INFONET | - | 43,186,300.00 | 150,000,000.00 | 86,083,063.00 |
| University of Delhi | 1,263,595.00 | 1,349,323.00 | 1,303,000.00 | 102,351.00 |
| Vehicle Hire Charges | - | 598,400.00 | 0.00 | 533,738.00 |
| CARRIED FORWARD | 4,276,926,994.88 | 4,265,588,140.88 | 2,848,166,025.40 | 2,848,258,476.40 |

Information and Library Network Centre, (An IUC of UGC)     Page No. : 34

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Ahmedabad – 380 009
Telephone No.:079 -27546279

(Amount–Rs.)

## RECEIPT & PAYMENT

| ACCOUNT HEAD | F.Y. 2011-2012 (Current Year) | | F.Y. 2010-2011 (Previous Year) | |
|---|---|---|---|---|
| | Receipt | Payment | Receipt | Payment |
| BROUGHT FORWARD | 4,276,926,994.88 | 4,265,588,140.88 | 2,848,166,025.40 | 2,848,258,476.40 |
| Car Reparis & Maintenance | - | 13,177.00 | 0.00 | 0.00 |
| Vehicle Insurance Exps. | - | - | 0.00 | 12,798.00 |
| VIT University | - | - | 1,810,080.00 | 1,704,831.00 |
| TDS Recoverable from Contractor - M/s.Bennet, Coleman & Co. Ltd. | - | 828.00 | 0.00 | 0.00 |
| TDS Recoverable from Contractor - M/s.BSNL | - | 620,408.00 | 0.00 | 0.00 |
| Interest on refund of TDS | 86.00 | - | 0.00 | 0.00 |
| TDS Recoverable from Contractor - M/s.Katira Construction | - | 8,359.00 | 0.00 | 0.00 |
| L.C.Opening Charges | - | 18,336.00 | 0.00 | 0.00 |
| Leave Encashment on retirement | - | 314,128.00 | 0.00 | 0.00 |
| Malani Construction Company | 18,419,334.00 | 18,419,334.00 | 0.00 | 0.00 |
| Mobilisation Advance - Malani | 850,000.00 | 6,427,565.00 | 0.00 | 0.00 |
| TDS Recoverable from Contractor - M/s.M.S.Makwana | - | 175.00 | 0.00 | 0.00 |
| TDS Recoverable from Contractor - M/s.Harsh Systems Pvt. Ltd. | - | 38.00 | 0.00 | 0.00 |
| TDS Recoverable from Contractor - M/s. Shree Ambica Travels | - | 240.00 | 0.00 | 0.00 |
| NPS Contribution | - | 485,442.00 | 0.00 | 0.00 |
| NPS Subscriptions | 485,442.00 | 485,442.00 | 0.00 | 0.00 |
| Other Deductions | 13,209.00 | 13,209.00 | 0.00 | 0.00 |
| Penal charged to Contractors | 3,100.00 | - | 0.00 | 0.00 |
| Planner - 2012 | - | 180,352.00 | 0.00 | 0.00 |
| RTI A/c | 130.00 | - | 0.00 | 0.00 |
| TA to candidates | - | 68,643.00 | 0.00 | 0.00 |
| TDS on contractor-Advt-company | 9,244.00 | 6,124.00 | 0.00 | 0.00 |
| TDS on contractor-company | 1,394,773.00 | 1,191,672.00 | 0.00 | 0.00 |
| TDS on contractor-Non-company | 18,417.00 | 17,332.00 | 0.00 | 0.00 |
| TDS on professional fees | 5,091,040.00 | 2,585,394.00 | 0.00 | 0.00 |
| TDS on professional fees-non company | 5,150.00 | 5,150.00 | 0.00 | 0.00 |
| TDs on Rent | 44,100.00 | 40,250.00 | 0.00 | 0.00 |
| UGC grants for Internet Connectivity | 2,175,000.00 | 599,757.00 | 0.00 | 0.00 |
| UGC grants for Website | 1,000,000.00 | 643,615.00 | 0.00 | 0.00 |
| Workshop on Digital Collections | 108,250.00 | 47,036.00 | 0.00 | 0.00 |
| Loss on sale of Assets | - | 9,394,171.00 | 0.00 | 0.00 |
| TDS Recoverable (Others) | 630,048.00 | - | 0.00 | 0.00 |
| | 4,307,174,317.88 | 4,307,174,317.88 | 2,849,976,105.40 | 2,849,976,105.40 |

Information and Library Network Centre, (An IUC of UGC)

Page No. : 35