



INFLIBNET Centre

Information and Library Network Centre
Gandhinagar



ANNUAL REPORT

April 2021 to March 2022



<https://www.inflibnet.ac.in>

Annual Report

(April 2021 to March 2022)



Information and Library Network Centre
Gandhinagar

From the Director's Desk

Prof J P Singh Joorel
Director



I am pleased to present the Annual Report of the Information and Library Network (INFLIBNET) Centre from April 2021 to March 2022 to the academic community. During the reported period, the Centre was fully engaged in its existing flagship activities, services & projects along with some of its new major initiatives & assignments on hand. There were two new major initiatives called "Shodh-Chakra" under the guidance of the University Grants Commission (UGC), New Delhi and "National Research Data Repository (NRDR) for building up a Research Data Repository for depositing the research datasets generated by the faculty and research scholars from the academic and research institutions across India. And, INFLIBNET Learning Management System (ILMS), VIDWAN: Expert Database & National Researcher's Network, IRINS: Indian Research Information Network System, National Library and Information Services Infrastructure for Scholarly Content (N-LIST), Shodhganga: a reservoir of Indian theses, ShodhShuddhi (Plagiarism Detection Software), SOUL (Software for University Libraries), IndCat: Union Catalogue of Indian Universities, "India Rankings 2021 & 2022" under the National Institutional Ranking Framework (NIRF), Atal Ranking of Institutions on Innovation Achievements (ARIIA 2021), and conducting short-term & long-term Online Training Programmes and Webinars were the major activities of the Centre among others during the reported period.

During the reported period, the team@INFLIBNET was working on the new major academic initiative called "Shodh-Chakra" under the guidance of the University Grants Commission (UGC), New Delhi which is just recently been launched. The main objective of this initiative is to help the academic community which will provide a unique space for the researcher, guide/supervisor and university to manage the research lifecycle of a research scholar online. It will work as a digital workspace wherein researchers can collect, store, organize and cite their research work. Shodh-Chakra would help researchers to create their profiles and manage their preferences online in an in-built portal. The project called "National Research Data Repository (NRDR)" was envisaged to build up a Research Data Repository to deposit the research datasets generated by the faculty and research scholars from the academic and research institutions across India during the reported period. The Centre has already developed a pilot instance of NRDR and it will be made available to the academic community as soon as it is officially launched.

During the reported period, the INFLIBNET Centre deployed its INFLIBNET Learning Management Service (ILMS) for 14 institutions in the country. Till the reported period, the INFLIBNET Centre has deployed this ILMS service for a total of 31 institutions in the country.

A total of 33,527 numbers of expert profiles were created/added in VIDWAN during the reported period. And, till the reported period, VIDWAN have detailed expert profiles of 1,21,988 faculty members and scientists working in 12,510 academic institutions. The INFLIBNET Centre has created 475 IRINS instances for Institutions till the reported period and connected a total of 75,417 faculty members through this project. The project retrieved a total of 13,35,513 publications metadata from various sources and received a total of 14,78,20,003 citations & received a total of 41,53,333 Altmetrics mentions till the reported period. And, during the reported period, a total of 195 numbers of instances were created, where a total of 22,939 faculty members got connected, and a total of 3,98,657 publications metadata were retrieved.

To keep a special mention here, N-LIST team at the Centre implemented a new method for reporting usage statistics and the CMP E-Collection (VAN) facility for online payments of N-LIST membership fees during the reported period. The Team also added an article-level search feature in journals from five publishers in the first phase for better discovery of content subscribed under N-LIST Programme.

During the reported period, a total of 50,501 full-text theses were received & uploaded into the Shodhganga repository, whereas the total number of theses deposited into the repository has reached 3,50,000 till the reported period. Till the reported period, a total of 685 (640 Universities+45CFTIs/INIs) have signed MoU with the INFLIBNET Centre including 87 MoUs (63 universities +24 CFTIs) that were signed during the reported period. The INFLIBNET Centre organized the launching ceremony for the 3,00,000 thesis online as "Uploading of 300000th Thesis into Shodhganga: a reservoir of Indian Theses" on 09th April 2021 and the launching of the thesis was done by Prof Rajnish Jain, the Secretary, University Grants Commission, New Delhi in the presence of Prof J P Singh Joorel, Director, INFLIBNET Centre. In PDS-ShodhShuddhi, a total no. of 8,73,905 documents were submitted for checking of plagiarism by 817 Institutions during the reported period and overall 19,88,174 documents were scanned till the reported period since its inception from 1st September 2019. Further, a total of 15 Pan-India State Level Awareness Programmes on PDS-ShodhShuddhi were conducted (June-July 2021), where a total of 2,834 participants participated from 1,040 institutions across the country.

After the launch of SOUL 3.0 on last 24th February 2021, a total of 536 copies of SOUL installations of institutions were upgraded from SOUL 2.0 to SOUL 3.0, which includes 273 copies of Limited Edition and 263 copies of Full Edition by the Centre during the reported period. The Centre provided SOUL 3.0 to 98 new institutions during the reported period which includes 80 copies of Limited Edition and 18 copies of Full Edition. Till the reported period, a total of 4,002 SOUL installations in institutions are there in the country. The Centre held a virtual meeting with the officials of Mahatma Gandhi Institute (MGI), Mauritius to sign an MoU between the INFLIBNET Centre and Mahatma Gandhi Institute (MGI), Mauritius for the computerization of their MGI Library using SOUL 3.0 on 13th January 2022.

During the reported period, the regional catalogue "GujCat (Online Union Catalogue of Gujarat Colleges), developed by the INFLIBNET Centre was launched online by the Director of Higher Education - Govt. of Gujarat, Shri M Nagarajan on 22nd September 2021.

The INFLIBNET Centre is playing a pivotal role in the ranking of institutions in the country. Since the first launch of "India Rankings" under the National Institutional Ranking Framework (NIRF) in 2016, the Centre has continued the project and executed its 6th exercise of "India Rankings 2021" under the National Institutional Ranking Framework (NIRF)". The team @INFLIBNET worked hard in making the India Rankings 2021 (NIRF) a great success which was e-released by Hon'ble Minister of Education,

Shri Dharmendra Pradhan in the august presence of Smt. Annapurna Devi and Dr Subhas Sarkar, Hon'ble Ministers of State for Education, and Dr Rajkumar Ranjan Singh, Hon'ble Minister of State for External Affairs and Education on 09th September 2021, and the work done by INFLIBNET Centre was highly appreciated. The Centre has started to work for "India Rankings 2022" during the reported period. Also, the Centre successfully executed the 3rd exercise of Atal Ranking of Institutions on Innovation Achievements (ARIIA 2021) which was launched by Dr Subhas Sarkar, Hon'ble Minister of State for Education, on 29th December 2021. The Centre is the technical partner with ARIIA project and has signed MoU with AICTE for the same.

Under its Human Resource Development & Consultancy programme, the INFLIBNET Centre has taken many initiatives to conduct short-term and long-term online training programmes and webinars. In this connection, the Centre conducted 13 Online Training Programmes on "SOUL 3.0 Software Operations", i.e. first during 31st May - 04th June 2021, second (14th - 18th June 2021), third (5th - 9th July 2021), fourth (12th - 16th July 2021), fifth (26th - 30th July 2021), sixth (9th - 13th August 2021), seventh (13th - 17th September 2021), eighth (4th - 8th October 2021), ninth (22nd - 26th November 2021), tenth (13th - 17th December 2021), eleventh (31st January - 4th February 2022, twelfth (21st - 25th February 2022, and thirteenth (21st to 25th March 2022) respectively during the reported period.

Further, the Centre conducted four specialized online training programmes, i.e. a Five-day Online Training Programme on "Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools and Altmetrics" from 5th - 9th April 2021, a Three-day Online Training Programme on "Creation and Management of Digital Library using Open Source Software" during 21st - 23rd June 2021, and two Three-day Specialized Online Training Programmes on "Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools and Altmetrics" from 21st to 23rd February 2022, and "Creation and Management of Digital Library using Open Source Software" from 14th to 16th March 2022 respectively.

The Centre organized three collaborative specialized training programmes, i.e. a Two-day Specialized Training Programme on "Research Ethics, PDS-ShodhShuddhi and INFED" for NIFT Library Professionals and Coordinators from 15th to 16th November 2021, a Five-day Online National Workshop on "Web-based Library Services" in collaboration with Sayajirao Gaekwad Library, Banaras Hindu University, Varanasi from 4th to 8th October 2021, and a Five-day Hands-on Training Programme on "Research Data and Statistical Analysis using R Programming" in collaboration with Gujarat Biotechnology Research Centre (GBRC), Gandhinagar from 13th to 18th December 2021 respectively during the reported period.

The Centre organized fifteen Pan-India State Level Online Awareness Programmes on PDS-ShodhShuddhi during this period. A total of seven region-wise Online Awareness Programmes on Access to e-Resources under N-LIST for all College Members were organized, i.e. for Southern Eastern Region, Western Region, Central Region, Northern, North-Eastern, Eastern, and South-Western Region on 11th June 2021, 25th June 2021, 09th July 2021, 23rd July 2021, 06th August 2021, 27th August 2021, and 08th September 2021 respectively during the reported period. The Centre on the request from the Ministry of Social Justice & Empowerment, the Transgender & Beggary Division of the National Institute of Social Defence (NISD), conducted 35 Online Training Programmes on 'National Portal for Transgender Persons' for the District Magistrates/Collectors and concerned officials in between 10th August 2021 – 15th March 2022. The Centre organized four region-wise Online IRINS Coordinator's Meetings 2021 for South Region-1; South Region-2; East, West, & North-East Regions; and North Region on 18th October 2021, 20th October 2021, 21st October 2021, and 22nd October 2021

respectively to get connected with all the IRINS Coordinators/Nodal Officers of the participating institutions across the country virtually where a total of 204 participants attended. Apart from this, the Centre conducted seven Online Webinars on different topics related to various projects & services of the INFLIBNET Centre for academics and research communities in the country during the reported period.

A total of 8,039 participants attended these above-mentioned specialized online training programmes/workshops/webinars/FDPs excluding the number of participants from 35 Online Training Programmes on 'National Portal for Transgender Persons' and four region-wise Online IRINS Coordinator's Meetings 2021.

During the reported period, the INFLIBNET Centre celebrated the "7th International YOGA Day: Yoga for Wellness" on 21st June 2021 in its premise. The Centre conducted a lecture on the use of Hindi and Technical Terminology at INFLIBNET Centre on 22nd July 2021, and a One-day Seminar on the occasion of Hindi Pakhwada and Azadi ka Amrit Mahotsav on 17th September 2021 to promote the use of Hindi and Technical Terminology. The Centre celebrated the 75th Independence Day on 15th August 2021 at the Centre premises with all its staff members and their family. The Navratri festival was celebrated at the Centre with great enthusiasm with a Garba night organized on 8th October 2021 for its employees and their family members. The Centre as Coordinating Organization hosted the 'National Consultation on Regulatory System of Higher Education: Encouraging Excellence and Public Spiritedness Envisaged by NEP, 2020', organized by the University Grants Commission under the guidance of the Ministry of Education on 29th December 2021 for Western Zone states like West Bengal, Maharashtra, Gujarat, Goa, Rajasthan, Madhya Pradesh, Lakshadweep, and Dadra. The INFLIBNET Centre celebrated the 73rd Republic Day on 26th January 2022 at the Centre premises with all its staff members and their family. The Centre also celebrated Women's Day by organizing a special lecture on "Women in Leadership in the 21st Century" by Prof (Ms) Sushma Yadav, Member, University Grants Commission and Former Vice-Chancellor, Bhagat Phool Singh Mahila Vishwavidyalay, Khanpur Kalan, Haryana on 11th March 2022.

I'm proud to state that during the reported period, the team @INFLIBNET carried out all its activities in a very efficient manner and facilitated its best services & support to its end-users academic & research community & stakeholders in the country with the utmost. I am very much sure that you all would agree with me in the same. However, the Centre is always open to receiving constructive suggestions and feedback from its user communities. As the current situation demands, the Centre is expanding all its existing services & activities manifold by using advanced modes of ICT and virtually reaching all its users as much as possible. I assure you that the team at INFLIBNET Centre will remain focused on providing its uninterrupted excellent services & support to its user communities and stakeholders as always.

Finally, I hope that you and your loved ones are taking proper care and doing well. As we all know that the Covid issue is far from over and we are facing the new emerging Covid situation in the country. Thus, take proper care of yourself and your family members and properly follow all the government guidelines and appropriate Covid behaviours at your workplaces & home.

Thank you.

Date: 25th July 2022


(Prof J P Singh Joorel)

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Part - I

Introduction, Aims & Objectives, Governing Structure and Human Resources

1. Introduction

The Information and Library Network (INFLIBNET) Centre, set up in May 1996, is an autonomous Inter-University Centre (IUC) of the University Grants Commission (UGC) located at Infocity, Gandhinagar. Major activities and services of the Centre are geared toward the 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.

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 the 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 the 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 online union catalogue of serials, theses/dissertations, books, monographs and non-book materials (manuscripts, audio-visuals, computer data, multimedia, etc.) in various libraries in India;

➤ to develop new methods and techniques for archiving of valuable information available as manuscripts and information documents in different Indian languages, in the form of digital images using high-density storage media;

➤ to optimize information resource utilization through shared cataloguing, inter-library loan service, catalogue production, collection development and thus avoiding duplication in acquisition to the extent possible;

➤ to enable the users dispersed all over the country, irrespective of location and distance, to have access to information regarding serials, theses/dissertation, books, monographic and non-book materials by locating the sources wherever available and to obtain it through the facilities of the INFLIBNET and union catalogues of documents;

➤ to create databases of projects, institutions, specialists, etc. for providing online information services;

➤ to encourage cooperation 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. Governance

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

4.1. Council

The Council 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, the 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 Centre is the Member-Secretary of the Council. The Council meets once a year. The present members of the Governing Council are listed in **Appendix I**.

4.2. Governing Board

Governing Board (GB) manages, administers, directs and controls the affairs of the Centre as per the 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 II**.

4.3. Finance Committee

The Finance Committee (FC) is a sub-committee of the Governing Board and consists of seven 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 The Finance Committee will consist of the following members. The members of the current Finance Committee are listed in **Appendix III**.

5. Human Resources

The Centre employs administrative, scientific and technical personnel for achieving its defined objectives. The technical personnel are mostly qualified in library, information and computer sciences. A list of technical, administrative and supporting staff of the Centre as on 31st March 2021 is given in **Appendix V**.

6. Functional Groups @INFLIBNET Centre

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

6.1. Database Management and R&D Group: The Database Management Group has developed suitable software and search interfaces for managing and updating a large number of bibliographic records available in Union Catalogues. IndCat contains bibliographic description, location and holdings information for books, journals and theses in all subject areas available in different university libraries across the country.

6.2. Software R&D Group: The objective of this group is to develop software for the academic community in India with a focus on software for library automation, union catalogue and software tools to facilitate data interchange and exchange. This group is also involved in supporting all other activities of the Centre by providing adequate software support from time to time. The mission of this group is to provide technological and software support for all activities of the Centre using the latest technologies and available development tools. The group also promotes and supports the open-source software movement within the Centre as well as in the entire higher education community in India.

6.3. Human Resource Development (HRD) Group: Imparting training to manpower working in the university and college libraries in the use of IT is an important objective of the Centre and has been given due priority. INFLIBNET Regional Training Programme for Library Automation (IRTPLA) and User Awareness Training Programme was conducted across the country in collaboration with the universities. National and International Conventions called PLANNER in North-Eastern Regions and International CALIBER in various states of India are being organized in the alternate year as part of the human resource development activities. Besides, training programmes on various specialized topics are being organized around the year at INFLIBNET Centre as well as in academic institutions around the country.

6.4. e-Resource Management Group: Major objective of the group is to provide current as well as archival access to e-resources to faculty, researchers and students in colleges and universities at highly discounted rates of subscription with the best terms and conditions using the consortia approach. The group also evaluates the impact of access to peer-reviewed scholarly content on the research productivity of the institutions both in terms of quality and in terms of quantity of publications in colleges and universities. e-Resource Management Group is responsible for all consortium-related activities including e-ShodhSindhu and NLIST.

6.5. Open Access R&D Group: The open-access has emerged as a promising alternative to the publisher-driven model of scholarly publishing that provides free access to scientific information to its users. The open-access publishing model offers access to full-text journals free of charge to users through well-organized and professionally managed web interfaces. The essential premise of the open access movement is that the scientific community and society in general benefit 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 systems.

6.6. e-Learning and e-Content Development Group: The Centre has a dedicated group of people who are working on e-Learning and e-Content development. The objective of this group is to create content in open access with the help of SMEs and provide innovative technology to academicians to develop/host the content. Currently, the Centre has several e-Content projects including e-PG Pathshala, Vidya-Mitra, SWAYAM and SWAYAM-Prabha. The Centre is also providing the INFLIBNET Learning Management Service to the HEIs.

6.7. Web Services R&D Group: Major objective of the Group is to provide organized and structured access to services and resources offered by the Centre to the user community through the Centre's Website. The Group ensures that the Website of the Centre functions as an integrated interface for all services and resources accessible to the user community in the universities. The Group designs innovative web-based interfaces for effective and efficient delivery of services using the latest web-based tools and technologies. The Group undertakes all activities related to the selection, organization and presentation of services and resources in a meaningful way for the benefit of the user community.

6.8. Access Management Group: Access Management Group is responsible for examining and evaluating tools and technologies, including Web proxies, Shibboleth, Referring URL, Kerberos, etc. that are in vogue for authenticating users to access and operate upon digital materials irrespective of their login location. The Group works on access management technologies, especially using open source software, to help universities to adopt authentication technologies to facilitate access to e-resources to the off-campus community. The Group also works on other aspects of access management as the Centre is involved in the process of building digital repositories of electronic theses and dissertations (Shodhganga), e-prints, preprints, manuscripts, etc.

6.9. Network and QC Group: The major responsibility of this group is to manage, maintain and update the campus-wide network, and promoting R&D activities in the area of networking and network-quality management. One of the major objectives of this group is to help universities that

are under the purview of UGC in upgrading their ICT and network infrastructure. The Group is responsible for setting up the Data Centre and associated ICT & network infrastructure in the INFLIBNET Centre for hosting various databases and web-based services. The Group also imparts training programmes and workshops in the area of network management, security design and state-of-the-art technologies for library professionals across the country.

6.10. Bibliometrics and Research Assessment Group: The Bibliometric and Research Assessment Group at the Centre studies the impact of access to e-resources on research productivity in colleges, institutes and universities in India. This group supports the projects like India Rankings under NIRF and ARIIA by providing data on research publications and citations of Institutions extracted from Web of Science, Scopus and other bibliographical databases.

6.11. Publication Division: Major R&D and human resource development activities are undertaken as per the requirements of the library and academic community including students, faculty and research scholars. Major scientific and technical activities undertaken by these functional groups during the period under the report are given in **Part II** of this report.

7. Physical Infrastructure

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

8. Major Initiatives

Technology is a driving force in the contemporary education system. The Centre has taken up several initiatives for the benefit of the academic community in India. All the major scientific & technical initiatives undertaken by the aforementioned functional groups at the Centre can be broadly grouped into 12 categories as follows:

8.1. Automation of University Libraries

The Centre proactively helps universities to automate their libraries by various means. The INFLIBNET Centre signed MoUs with 166 universities for library automation, which provides for universities to contribute their bibliographic records of documents available in their libraries to IndCat: Union Catalogue of the INFLIBNET Centre.

8.2. IndCat: Union Catalogue of Indian Universities

IndCat consists of a union catalogue of Books, Serials and PhD theses available in university libraries in the country. It contains unique bibliographic records of 1,29,21,712 with a total holding of 1,76,10,005 books from 205 university libraries, 35,614 unique journal titles having holding information for 229 universities, and 4,41,725 bibliographic records of theses from 444 universities.

8.2.1. GujCat (Online Union Catalogue of Gujarat Colleges): GujCat (Online Union Catalogue of Gujarat Colleges), developed by the INFLIBNET Centre was launched online by the Director of Higher Education - Govt. of Gujarat, Shri M Nagarajan on 22nd September 2021. It contains unique bibliographic records of 4,83,213 with a total holding of 6,03,366 records from 33 college libraries in Gujarat.

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

8.2.3. OCS (Online Copy-Catalogue System): OCS has been launched by Prof Yogesh Singh (Hon'ble Chairman of Governing Board, INFLIBNET Centre and Vice-Chancellor of Delhi Technological University, New Delhi) on 18th August 2021. It contains 5,990 unique records from 27 universities.

8.3. Software Development: SOUL 2.0 & 3.0 (Integrated Library Automation Software)

INFLIBNET Centre contributes towards the automation of libraries through in-house developed SOUL (SOftware for University Libraries) software. SOUL has a total of 4002 installations across the country. In 2021, INFLIBNET Centre developed the new version of SOUL that is SOUL 3.0 which was launched online by Prof D P Singh, Hon'ble Chairman, University Grants Commission, New Delhi and Hon'ble Chairman, Governing Council, INFLIBNET Centre on 24th February 2021. During the reported period, 98 SOUL installations have been done for institutions in the country.

8.4. Open Access, Open Data Initiatives, and Plagiarism Detection Software (PDS)

8.4.1. Shodhganga: A Reservoir of Indian Theses & Dissertations: Launched in January 2010, Shodhganga, a reservoir of Indian Theses, at present, hosts 3,50,000 full-text theses contributed from 538 institutes. During the period of this report, 47,974 full-text theses (Unique titles) were uploaded (during data extracted from the Server) from 437 contributing universities, and 87 MoUs (Univ+INI/CFTIs) were signed. However, as per the holding records, a total of 50,501 full-text theses were received during the reported period. The launching ceremony for the 3,00,000th thesis as “Uploading of 3,00,000th Thesis into Shodhganga: a reservoir of Indian Theses” was organised online by the INFLIBNET Centre on 09th April 2021 and the launching of the thesis was done by Prof Rajnish Jain, the Hon’ble Secretary, University Grants Commission, New Delhi in the presence of Prof J P Singh Joorel, Director, INFLIBNET Centre.

Many new features were added to Shodhganga during the reported period. The major features include adding recommendations as a module in Shodhganga by capturing recommendations from theses and its subject-wise aggregated display, duplicate checking of titles etc. For users’ benefit, features like live update statistics, full-Text download of Thesis as a single file, support for downloading citation in BibTeX format as well as ASCII, integration of new dashboard with Shodhganga for subject-wise alphabetical order display of Universities etc., were added. For University Coordinators and Admin of Shodhganga, updates were made for adding keywords from Library of Congress Subject Heading (LCSH), display of State/University wise count of Theses, separate recommendations module, checking of duplicate titles of Thesis while uploading Thesis etc.

8.4.2. Shodhgangotri: Repository of Indian Research in Progress: Initiated in 2013, Shodhgangotri is a repository of research in progress that hosts a total of 8,571 Synopses/Major-Minor Research Projects (MRP)/Post-Doctoral Fellowship (PDF)/Emeritus Fellowship contributed by 115 Institutes.

8.4.3. ShodhShuddhi - Plagiarism Detection Software (PDS): The Ministry of Education, Govt. of India initiated to provide Plagiarism Detection Software (PDS) to all Indian Universities/Institutions including Central Universities, State Universities, Deemed to be Universities, Private Universities, Centrally Funded Technical Institutions (CFTIs), Institute of National importance (INIs), Inter-University Centres of UGC (IUCs). The INFLIBNET Centre is the nodal agency to execute the project/initiative under the aegis of the Ministry of Education. The anti-plagiarism software facilitates the comparison of submitted documents with multiple databases of documents which covers subscription-based resources, current & archived Internet web pages & web documents, open-access resources from primary publishers and aggregators, student papers databases, etc.

During the reported period, 15 Pan-India State Level Awareness Programmes on PDS-ShodhShuddhi were conducted (June-July 2021), where a total of 2,834 participants participated from 1,040 institutions across the country. A total no. of 8,73,905 documents were submitted during the period in the report for checking plagiarism by 817 Institutions and overall 19,88,174 documents (as per PDS Portal) are scanned (till 31st March 2022) since its inception from 1st September 2019 by PDS.

8.4.4. ICSSR Data Service: Indian Social Science Data Repository: The project was assigned to the INFLIBNET Centre in 2015 by the ICSSR, hosts 140 datasets from MoSPI on the platform customized using NADA software. Currently, there are 5,020 registered users in the Repository. This has been quite popular in the research community and has over 50 lakh+ resource downloads. Further, the Centre has developed a data analytical tool called "ICSSR Data Analytic Tool" using "R" language that facilitates users to explore and visualise unit-level data available in datasets online.

8.4.5. IR@INFLIBNET: The Centre has established an institutional repository called IR@INFLIBNET using DSpace, open-source software accessible at <http://ir.inflibnet.ac.in/>. The papers published in the proceedings of the CALIBER and PLANNER are uploaded into the repository. The Repository also includes course materials, newspaper clippings, etc. The repository has 1,859 full-text articles.

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

8.4.7. INFOPORT: A Subject Gateway to Indian Scholarly Internet Resources: INFOPORT is designed to facilitate registering of an internet resource into the portal and extending its access to users. INFOPORT supports browsing of internet resources by Dewey Decimal Classification (DDC) Scheme. During the year under report, several features and functionalities of the subject gateway were enhanced based on feedback from users and additional internet resources were added to the portal. The interface is populated with 1,742 e-resources.

8.4.8. National Research Data Repository (NRDR): The National Research Data Repository is envisaged to build up a Research Data Repository with the research datasets generated by the academic and research institutions from across India. The research data generated by the faculty and research scholars would be considered for depositing into the NRDR. The National Education Policy 2020 (Point No. 24.4(C)) encourages online education and emphasizes the creation of digital

repositories. The Centre has developed a pilot instance of NRDR and it will be made available to the academic community as soon as it is officially launched.

8.5. Library Consortium and its by-products

8.5.1. e-ShodhSindhu: Launched in 2015, e-ShodhSindhu provides access to more than 7,145 e-journals and 6 lakh+ e-books (through NDLI) to more than 448 institutions that include universities, centrally-funded technical institutions. NLIST is a college component of e-ShodhSindhu that provides access to 6,500+ electronic journals and 1,99,500+ e-books to more than 5.22 lakh users spanned across 3,414 colleges.

8.5.2. InfiStat: InfiStats, a by-product of e-ShodhSindhu launched in 2015 facilitates monitoring and evaluation of usage statistics of subscribed e-resources made accessible to the member institutes under e-ShodhSindhu.

8.5.3. INDIAN Access Management Federation (INFED): Started in a full-fledged manner in 2017 by the INFLIBNET Centre, INFED provides off-campus access to e-resources to users in institutes covered under e-ShodhSindhu. Currently, more than 210 institutions have signed the membership to join INFED, and 158+ institutions are actively using the services. Further, a total of 42 publishers have joined INFED.

8.5.4. J-Gate Plus: The J-Gate Plus@e-ShodhSindhu is a virtual library of journal literature created as a customized e-journal articles access gateway and database solution for member institutions of e-ShodhSindhu. It provides article-level access to e-journals subscribed under the Consortium as well as e-journals subscribed by 25 university libraries designated as ILL Centres of the INFLIBNET Centre.

8.6. e-learning, Content Development and MOOCs

8.6.1. e-PG-Pathshala: Initiated in 2012, the INFLIBNET Centre has completed the e-PG Pathshala, an Ministry of Education initiative under its National Mission on Education through ICT (NMEICT), executed by the University Grants Commission. Currently, the Centre is maintaining the portal. Further, the Centre is deriving e-Books from the e-PG Pathshala content with 23000+ modules including 700+ PG courses.

8.6.2. Vidya-mitra: The Vidya-mitra Project was assigned to the INFLIBNET Centre in May 2014. It is an integrated e-Content Portal for all the e-content projects developed under the NMEICT, Ministry of Education. Vidya-mitra hosts 66,000+ Video (Self-learning / e-Tutorial) and 44,000+ e-

Text. Though the project has been completed, INFLIBNET Centre is providing free hosting services for e-contents developed by faculty members/academia across Indian institutions on a request basis.

8.6.3. SWAYAM: Massive Open Online Courses (for PG Courses): Launched on 9th July 2017, the INFLIBNET Centre is a nodal agency for coordinating MOOCs for PG courses. The Centre is executing this project with the guidance of UGC. The major role of INFLIBNET is fund disbursement (before the 2021 session) to all course coordinators, the development of a web interface for course proposals and a dedicated portal for UGC-MOOCs. Portal provides a dashboard for SWAYAM coordinators, and mentors, information on PG-courses updates, workshop details, etc. During this reported year, an expression of interest (Eoi) for content creation was added to the UGC-MOOCs portal.

The INFLIBNET Centre as an Anchor Institute successfully conducted the UGC SWAYAM-MOOC Course (4 Credits - 15 Weeks Course) on Research Ethics under 'Development of Non-Technology PG Degree Online Courses' for the 3rd consecutive year in 2021 (July-December, 2021 Semester) during the reported period. There were 3063 learners/students enrolled in this course. Further, 914 learners/students registered for the final exam which was conducted on the 21st & 22nd of February 2022 by the National Testing Agency (NTA).

8.6.4. SWAYAM-PRABHA: The SWAYAM PRABHA, an Ministry of Education project under NMEICT, is conceived as a group of 34 DTH educational channels devoted to telecasting high-quality educational programmes on a 24X7 basis. The INFLIBNET Centre has continued the task of development and maintenance of the SWAYAM-PRABHA portal and its hosting including archiving of videos for all the channels. There are 12 channels assigned to school education and the remaining channels are assigned to higher education (HE). Total subscriber 124,390, video 15,246 and having 11,801,405 views (for HE Channels) in the said report period.

8.7. INFLIBNET Learning Management Service (ILMS): INFLIBNET Learning Management Service (ILMS) is a service offered by the Information and Library Network Centre to institutions of higher education across the country. This service is being offered to all the Central, State and Deemed universities. Some of the core features are Course creation, Enrolment, Assignment & Assessment, Discussion forum, etc. During this reported period, the INFLIBNET Centre deployed its free ILMS service for 14 institutions in the country. Further, 300+ courses were added to the repository.

8.8. Ranking of Institutions and Accreditation

8.8.1. India Rankings 2021 under National Institutional Ranking Framework (NIRF): The first edition of India Rankings was launched in 2016 under the National Institutional Ranking Framework (NIRF). The Centre has continued the project NIRF and executed its 6th exercise of "India Rankings 2021" under the National Institutional Ranking Framework (NIRF)" during the reported period. India Rankings 2021 was e-released by Hon'ble Minister of Education, Shri Dharmendra Pradhan in the august presence of Hon'ble Ministers of State for Education, Smt. Annapurna Devi and Dr Subhas Sarkar, and Dr Rajkumar Ranjan Singh, Hon'ble Minister of State for External Affairs and Education on 09th September 2021. The work done by INFLIBNET Centre was appreciated. The Centre was responsible for the development of the NIRF Web Portal including the data capturing system, perception capturing system, the feedback mechanism and the ranking platform. The Centre also provided and verified data on publications, citations, patents and highly cited papers.

Also, the work related to India Rankings 2022 under the National Institutional Ranking Framework (NIRF) started during the reported period and is in progress. The INFLIBNET Centre has been given the task to execute the 7th exercise of NIRF i.e. India Rankings 2022.

8.8.2. Atal Ranking of Institutions on Innovation Achievements (ARIIA): ARIIA is an initiative of the Ministry of Education to systematically rank all major higher educational institutions and universities in India on indicators related to "Innovation and Entrepreneurship Development" amongst the students and the faculties. The INFLIBNET Centre has successfully executed the 3rd year exercise of Atal Ranking of Institutions on Innovation Achievements (ARIIA) framework which was launched by Hon'ble Minister of State for Education, Dr Subhas Sarkar on 29th December 2021 during the reported period. The Centre is a technical partner of ARIIA project and has signed MoU with AICTE for the same. The registration for the 4th annual exercise has started during the reported period.

8.8.3. e-NBA: Accreditation Workflow Management System (AWMS): The project, called "Accreditation Workflow Management System (AWMS)" is related to the accreditation of the technical institution's programme. The Centre is involved in developing a full-fledged online platform of accreditation workflow management system for technical institutes based on requirements provided by the National Board of Accreditation since 2018.

8.8.4. NAAC: The INFLIBNET Centre has been assigned the job of providing publications, citations, H-index and other related bibliometric data to NAAC for institutions that are to be accredited by NAAC since November 2017.

8.9. Research Profiling and Scholarly Networks: VIDWAN and IRINS

8.9.1. VIDWAN: Expert Database & National Researcher's Network: Project assigned to the INFLIBNET Centre in May 2014 by NMEICT. VIDWAN consists of detailed profiles of more than 1,21,988 faculty members and scientists working in 12,510 academic institutions till the reported period. The VIDWAN project retrieved a total of 17.12 lakhs publications metadata from various sources. And, during the reported period, a total of 33,527 numbers of profiles were created/added in VIDWAN.

8.9.2. Indian Research Information Network System (IRINS): Project assigned to INFLIBNET Centre from the Ministry of Education under NMEICT Phase-II in 2018. IRINS is a Web-based Research Information Management (RIM) service provided to higher education institutions in India. IRINS facilitates the academic, R&D organisations, faculty members and scientists to collect, curate and showcase scholarly communication activities and provide an opportunity to create a scholarly network. The INFLIBNET Centre has created a total number of 475 IRINS instances for Institutions till the reported period and connected a total of 75,417 faculty members through this project. The project retrieved a total of 13,35,513 publications metadata from various sources and received a total of 147,82,003 citations & received a total of 41,53,333 Altmetrics mentions till the reported period. And, during the reported period, 195 numbers of instances were created, where a total of 22,939 faculty members got connected, and a total of 39,8,657 publications metadata were retrieved.

8.10. INFLIBNET's Website Development and Maintenance

The Centre maintains a comprehensive website of its own both in English and Hindi available at <https://www.inflibnet.ac.in/>. The Centre uses web technology to provide organised and structured access to its services and resources to the academic community through the Centre's Website as well as through the websites of its all services and products. Also, the Centre maintains an Intranet Portal for storing & easy access to various official documents like rules and regulations, office circulars & notices, committees' details, a list of holidays & presentations, etc. at one place; and an IHRMS Module (INFLIBNET Human Resource Management System), a web-based interface which facilitates routine administrative activities.

8.11. Web Application Projects funded by the Ministry of Education, Government of India

The Centre developed several web portals for various activities/initiatives of the Ministry of Education, Government of India such as PMMMNMTT, EBSB, Fit India, and Unnat Bharat Abhiyan.

8.11.1. Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNTT): PMMMNTT is a Scheme launched by the Ministry of Education, Government of India. The scheme aims to improve the quality of the school and higher education by comprehensively addressing all issues related to more than 1,00,000 college and university teachers, teaching, teacher preparation, professional development, Curriculum Design, Designing and Developing Assessment. INFLIBNET Centre is providing web and technical development support.

8.11.2. Ek Bharat Shreshtha Bharat (EBSB): A portal hosts details of events being organized by different states. Events include a cultural programme, academic programme, etc. EBSB is designed to promote the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States. HEI, different ministries and other government agencies are providing the data in different activities.

8.11.3. Fit India: Fit India: The Ministry of Education assigned the task to design, develop and maintain a portal for "Fit India Movement", a Ministry of Education initiative to support the Fit India programme of the Government of India.

8.11.4. Unnat Bharat Abhiyan: The Centre has developed an online application for Institutes through which institutes can join UBA and can opt for the villages and benefits of schemes. In addition, the admin dashboard including the 'Score' module was created by the Centre.

8.12. e-Governance @ UGC

8.12.1. UGC Website: The UGC has assigned the responsibility for the development and maintenance of its website to the INFLIBNET Centre, which includes automation of its various schemes, Grant Management System and e-Scholarship-Fellowship Award Registration Tracking System (e-SARTS) etc.

8.12.2. e-Governance of UGC-Schemes: INFLIBNET Centre has developed more than 30 web services for UGC for its scholarship, fellowships, travel assistance, General Development Assistance, Women's Hostel, Autonomous and Heritage institutions, Distance Education etc.

8.12.3. Development of Web Portal for Distance Education Bureau – UGC: The INFLIBNET Centre has developed a web portal for Distance Education Bureau - University Grants Commission. The main aim of the portal is to automate all the UGC - DEB activities. The Centre has automated the UGC-DEB activities such as inviting proposals, online meetings, virtual visits etc.

8.13. Other Academic Projects

8.13.1. Study in India: Study in India is a web portal designed for foreign students seeking to study in India. It provides all the information one needs on Indian education institutions in India, how to plan their studies, how and where to stay in India, what kind of events are planned, application processes, etc. The core part of the portal is the institute login (where institutes can define their seats to the foreign students) and student login (where a registered student can participate in the choice filling, including mock counselling and final counselling). The Centre successfully executed the yearly exercise of Study in India.

8.13.2. National Testing Agency (NTA): INFLIBNET Centre provides website development and technical support to NTA. The portal facilitates a platform that automates the complete administration and management process of "Exam Observer", "Training Practice Centre", etc.

8.13.3. National Portal for Transgender Persons (Ministry of Social Justice and Empowerment): The Centre signed MoU with the Ministry of Social Justice and Empowerment, Department of Social Justice and Empowerment, Government of India to create National Portal for Transgender Persons which enables a transgender person to apply for a certificate and identity card digitally from anywhere in the country, without having to visit any office. The "Garima Greh" module along with scholarship/health schemes was added during the reported period.

8.14.4. Activity Portal for Association of Indian Universities (AIU), New Delhi: The INFLIBNET Centre has developed an activity portal for the Association of Indian Universities (AIU). The AIU portal provides value-added services to its members in terms of completely automating the equivalence of foreign degrees with Indian Universities. The Centre has developed several modules such as AIU Stakeholders Management, Identification of best Department/Faculty in each Member University to facilitate national and AIU collaboration portal, Equivalence of Foreign Degrees/ PGDM /Doctorate Degrees, International Students Portal, sport event, etc.

8.14.5. Technical Services to Indian Universities/Institutions

The INFLIBNET Centre is providing several technical services including website development, and web applications (i.e. recruitment system, admission system, etc) to the different universities/institutions. Some of the stakeholders are the Central University of Gujarat, Gandhinagar; Jagat Guru Nanak Dev Punjab State Open University (JGNDPSOU), Patiala; Sri Sri Aniruddhadeva Sports University, Dibrugarh; Children University, Gandhinagar; Sardar Patel University, Vallabh Vidyanagar, Inter-University Centre of Teacher Education, Varanasi; and Doon University, Dehradun.

9. Human Resource Development, Capacity Building Programmes & Consultancy

Since its establishment, the INFLIBNET Centre has been actively involved in various capacity-building programmes, i.e. in-house and off-site workshops, conferences, seminars, specialized training programs etc. During the period under report, the Centre conducted 58 online short-term and long-term training programmes/workshops including webinars, awareness and other collaborative programmes and 01 offline collaborative programmes that were attended by a total of 9,254 participants.

10. Publications

The INFLIBNET Centre has two major publications, i.e. Quarterly INFLIBNET Newsletter and Annual Report. Both publications are downloadable in PDF and e-book format available at the "Publications" page of the INFLIBNET Centre website at <http://www.inflibnet.ac.in/publication/>. The copies of Annual Reports, PLANNER and CALIBER proceedings, and publications like articles, conf. papers, user guides and manuals published by Scientists & staff members of the Centre are also available through the Institutional Repository (IR) of the Centre at <http://ir.inflibnet.ac.in>. A total of 05 publications were published by the Scientists & staff members of the Centre during the reported period.

Part - II

Activities and Major Services of the INFLIBNET Centre

INFLIBNET Activities at a Glance

Coverage of the Target Groups including Number of Beneficiaries (Cumulative)

Sl. No.	Activities, Services and Projects	Year of Commencement	Number of Univ.	Cumulative No. of Records
1	IndCat: Union Catalogue of Books, Serials and Theses in university libraries	1991		
	No. of Contributing Universities/No. of Books		205	1,76,10,005
	No. of Contributing Universities/No. of Serials		226	35,614
	No. of Contributing Universities/No. of Theses		444	4,41,725
	GujCat: Online Union Catalogue of Gujarat Colleges	2021	33	6,03,366
	OCS (Online Copy-Catalogue System)	2021	27	5,990
	Access: Available in Open Access to the worldwide community			
2	IR@INFLIBNET: Institutional Repository	2004		1,859
	Access: Available in open access to the worldwide academic community			
	Usage: Collection Views			45,874
3	Training and Workshops (including IRTPLA, e-Resource Awareness, DSpace, Shodhganga, Bibliometrics & Other Specialized Programmes/Webinars) (2021-2022)	1991		49
	Total No. of Participants (2021-2022)			8039
	PDS-ShodhSuddhi - No. of Programmes (Regional Programmes) (2021-2022)	2019		15
	PDS-ShodhSuddhi - No. of Participants (2021-2022)			2,834
4	SOUL Library Automation Software	2000		4,002
	SOUL 3.0: No. of Installations (April 2021-March 2022)	2021		98
	SOUL 2.0 to SOUL 3.0: No. of	2021		536

	Upgradations		
	SOUL 3.0: Training programmes conducted (Online Mode)	2021	13
	Participants trained in SOUL		457
5	Shodhganga: A Reservoir of Indian Theses	2010	
	MoUs Signed in 2021-2022		87
	Total MoUs Signed till 31 st March 2022	(640 Univ.+ 45 CFTI)	685
	No. of Theses Received in 2021-2022		50,501
	Total Number of Theses in Shodhganga		3,50,000
	No. of Contributing Universities/Institutes		538
6	e-PG Pathshala: e-Content for PG Courses	2011	
	No. of Subjects		70
	No. of Modules (e-text)		23,000
	No. of Modules (video)		23,000
	Access: Available in open access to the worldwide academic community		
7	Shodhgangotri: Repository of Approved Synopses for Doctoral Dissertation Thesis	2013	
	No. of Synopses/MRPs/PDFs/Fellowships		8,571
	No. of Contributing Institutions for Synopses /MRPs/PDFs/Fellowships		115
8	VIDWAN: Expert Database & National Researcher's Network	2013	
	No. of Expert's Profiles		1,21,988
	No. of Contributing Institutions		12,510
	Access: Available in open access to the worldwide academic community		
	No. of Expert's Profiles created in 2021-2022		33,527
9	IRINS: Indian Research Information Network System	2018	
	Total Instances		475
	No. of Profiles created		75,417
	No. of Publications Metadata retrieved		13,35,513
	No. of Citations received		147,82,003

	No. of Altmetric Mentions received to date		41,53,333
	No. of Instances created in 2021-2022		195
	No. of Profiles created in 2021-2022		22,939
	No. of Publications Metadata retrieved in 2021-2022		3,98,657
	Access: Available in open access to the worldwide academic community		
10	Vidya-mitra: Integrated Repository of all e-Content Project Repository of all MoE e-Content projects funded by the MoE		2013
	No. of e-Text		44,450
	No. of e-Tutorials		66,174
	Other e-Materials		37,827
11	India Rankings (NIRF)		2015
	No. of Institutes participated in India Rankings 2021		6,272
12	Atal Ranking of Institutions on Innovation Achievements (ARIIA)		2019
	No. of Institutes participated for ARIIA 2021		1,438
13	ICSSR Data Service: Indian Social Science Data Repository		2015
	No. of Datasets		140
	Usage: Total number of resources downloads		50 lakhs+
	Total Registered Users		5,020
14	e-ShodhSindhu: Access to e-Resources (e-Journals, e-Books and databases) to Indian Institutes		1 st December 2015 (2016)
	No. of Core Members (CFTIs)		98
	No. of Core Members (Universities)		217
	No. of Technical Institutes (AICTE)		133
	No. of e-Journals		7,145
	No. of Bibliographic Databases		4
	No. of e-Books (through NDLI)		6,00,000
	N-LIST: e-Resources to Colleges		
	No. of Colleges		3,414
	No. of e-Journals		6,500+
	No. of e-Books		1,99,500+
	Usage: No. of User ID Created for Access		5,22,010

15	ShodhShuddhi: Plagiarism Detection Software: No of Institutions Covered	2019	
	No. of Universities given access to anti-plagiarism software URKUND under ShodhShuddhi		1,061
	Number of Documents scanned for Plagiarism check under MoE scheme ShodhShuddhi since 1 st Sep 2019		
	Number of Documents scanned in 2021-2022		19,88,174
			8,73,905
	No. of Users created		1,27,777
	No. of Users added in 2021-2022		22,079
16	SWAYAM Prabha: 34 Academic DTH Channels	2017	
	No. of Channels		34
	No. Video Lectures (unique) Higher Education		15,246
	No. of Total Subscribers		1,24,390
	No. of Total views for HE Channels		11,801,405
17	INDIAN Access Management Federation (INFED)	2017	
	No. of Institutes Signed for INFED		210
	On Production		158
	No. of Publishers		42
18	INFLIBNET Learning Management System (ILMS)	2020	
	No. of Institutes Participated for ILMS		52
	No. of Institutes' ILMS status active		30
	No. of Implementation in 2021-2022		14
19	National Portal for Transgender Persons (Ministry of Social Justice and Empowerment)	2020	
	No. of Online Training Programmes on National Portal for Transgender Persons for District Magistrates/Collectors and concerned officials (2021-2022)		35

1. Automation of University Libraries

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

2. IndCat: Union Catalogue of Indian Universities and Databases

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

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

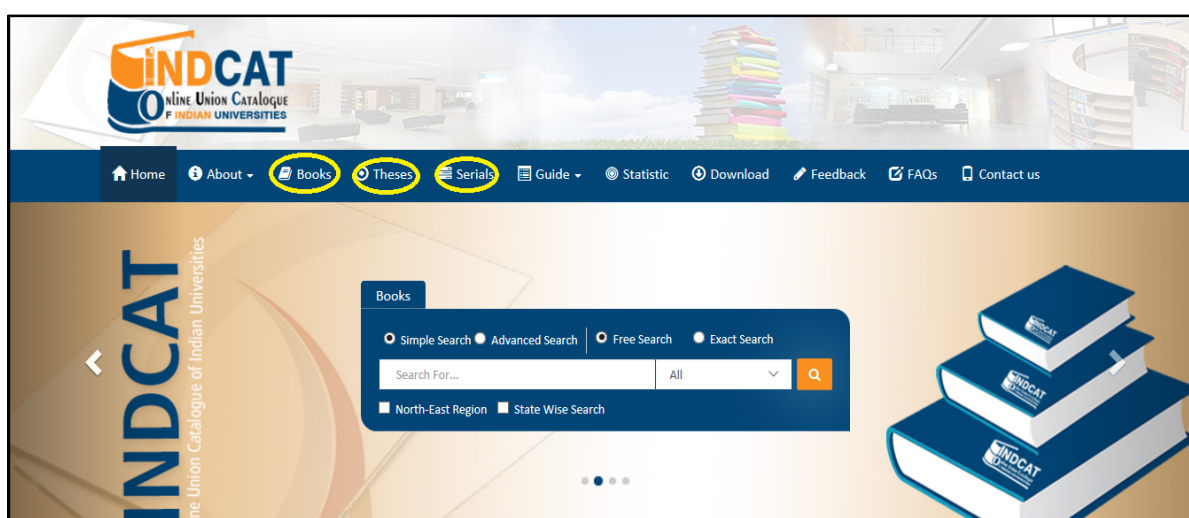


Fig. 1: Interface of IndCat: Union Catalogue of Indian Universities

2.1. Union Catalogue of Books

The Union Catalogue of Book Database covers bibliographic records of books available in the libraries of universities in India. The book database contains unique bibliographic records of 1,29,21,712 with a total holding of 1,76,10,005 books from 205 university libraries in various disciplines. The book database contains textbooks, reference books, conference proceedings, monographs, etc. The book database can be searched by different search elements i.e. title, author, ISBN, subject, publisher, Place, etc. Figure 2 depicts the Search Interface for Books.

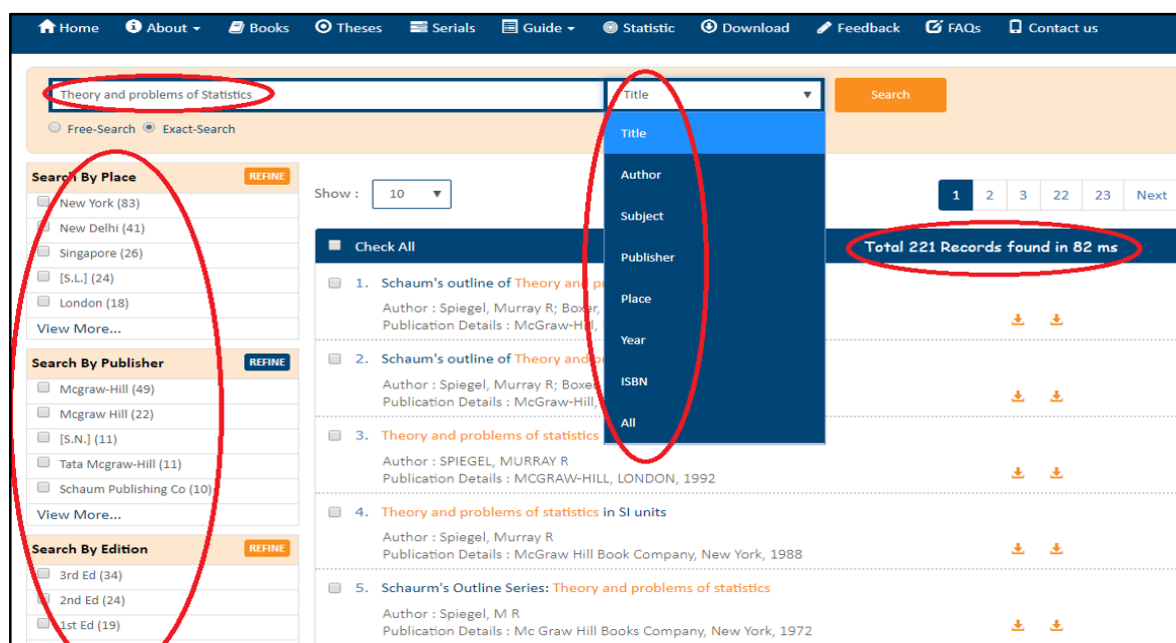


Fig. 2: Search Interface for Books

2.1.1. Process for Building IndCat

The process of building IndCat commences with the creation of bibliographic records in participating university libraries and their receipt at the INFLIBNET Centre. The steps involved in the building of IndCat database are as follows:

Step 1. INFLIBNET Centre receives bibliographic records from Indian universities in MARC or MARCXML format from different library software, such as SOUL, KOHA, Libsys, VTLS, SLIM etc.

Step 2. Checking the Data Quality as per the AACR-II Rules and LoC MARC standard. For that using MARCedit Software and the following fields are mandatory for the book database, i.e. Title, Author, Place, Publisher, Year, Edition, ISBN, Pages, Class No., Subject, and Accession.

Step 3. Importing the MARC File converted into CSV format using UCMS 2.0 Application.

Step 4. Importing CSV file into university database using UCMS 2.0 Application and using the following steps:

- Importing CSV file into Database;
- Creating DD String;
- Fetching Holding Details;
- Checking for Duplicate Records within University; and
- Mass Insert from Temp to Main Table.

Step 5. All records go under the process of authentication, using the Union Catalogue Management System (UCMS 2.0) Application for editing typographical errors in various fields such as place, publisher, edition, year of publication, etc.

Step 6. Lock Data before Matching and Merging

Step 7. Matching and Merging into IndCat.

Step 8. SOLR Indexing of Merging records

2.1.2. Web interface for Book Database of IndCat

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

Brief: By default, retrieved records are displayed in brief. A brief bibliographic record contains the title, authors, place, publisher and year of publication.

Descriptive: A detailed descriptive record contains complete bibliographic details of a book including its location. It is a second-level display that appears when a user clicks on the brief record. The descriptive record also provides the option of ILL request. Figure 3 depicts the bibliographic details of searched records.

Sr. No.	Holding University	Accession Number	Class Number	ILL Request
1	Himachal Pradesh University	102483	001.422	Request
2	Jawaharlal Nehru University	58898; 82134	NA	Request
3	International Institute for Population	NA	310	Request

Fig. 3: Bibliographic Details of a Searched Record

2.1.3. Functions and Features of IndCat

2.1.3.1. Restrict Search within a University / State

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

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

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

2.1.3.2. Copy Cataloguing

The copy cataloguing feature of IndCat facilitates downloading of bibliographic records in MARC 21 and Plain Text format. The downloaded bibliographic records can be imported to any library management software compliant with MARC 21 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. Figure 4 depicts copy cataloguing of a searched record and importing in SOUL 2.0

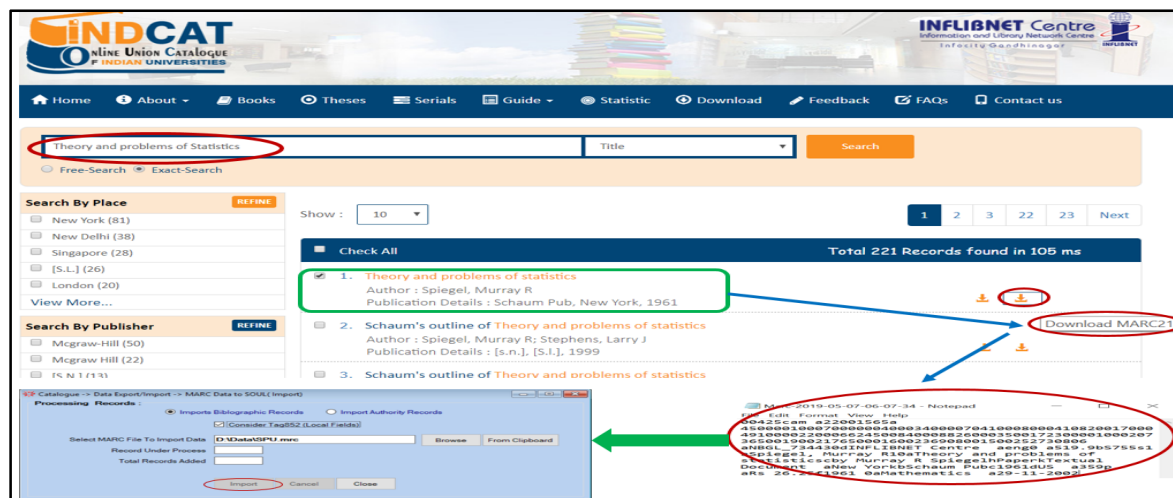


Fig. 4: Copy Cataloguing of a Searched Record and Importing in SOUL 2.0

2.1.4. Regional Union Catalogue of Books

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

2.1.4.1. GujCat 2.0 portal was launched by Shri M Nagarajan, Director, Higher Education & C.E.O, Knowledge Consortium of Gujarat, Govt. of Gujarat on 22nd September 2021. GujCat is an "Online Union Catalogue of Gujarat Colleges". It is a sub-set of IndCat. GujCat is mainly used for Inter-Library Loan, Copy Cataloguing and Retro-Conversion. It provides full bibliographic information i.e. Title, Author, Publisher, Subject etc. with local holdings. It serves as an individual catalogue of each college. A total of 33 colleges have contributed 4,83,213 unique records with a holding of 6,03,366 bibliographic records for the GujCat during the reported period. Figure 5 depicts the homepage of GujCat.

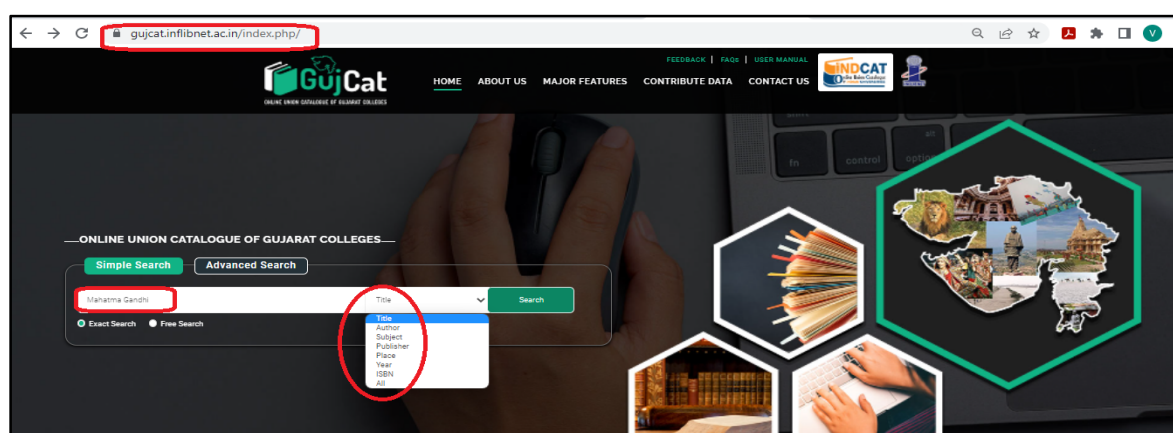


Fig. 5: Interface of GujCat: Online Union Catalogue of Gujarat Colleges

GujCat contains the following major features:

- Assist Simple and Advanced Searches using Boolean operators i.e. AND, OR, NOT;
- Gives full bibliographic information of each record with the holding details i.e. Name of the Colleges with its Accession Nos.;
- SOLR-Indexed based faceted search;
- Equips the participating college name with its contributed record numbers;
- Download records in two standard formats i.e. MARC21 and BIBTEX;

2.1.4.1.1. Bibliographical Records of College Libraries Added in GujCat during 2021-2022

During the year 2021-2022, the data of 33 Colleges were checked, authenticated, matched and merged with INFLIBNET's GujCat using UCMS 2.0 software. Details are given below in Table 1:

Sl. No.	Name of the Colleges	Imported Records	*Duplicate Record	#De-uplicate Record (Matched)	^Merge Record
1	APMC College of Pharmaceutical Education and Research	2430	16	7	2407
2	Bhaktraj Dada Khachar Arts And Commerce College, Gadhada	3494	12	7	3475
3	Dharmendrasinhji Arts College Rajkot	32292	7067	235	24990
4	DKV Arts and Science College Jamnagar	2861	77	70	2714
5	Government Arts & Commerce College, Kathlal	5639	79	5	5555
6	Government Arts and Commerce College Khergam	650	0	0	650
7	Government Arts and Commerce College Songadh	460	21	2	437
8	Government Arts College, Bayad	5042	183	63	4796
9	Government Arts College, Kaparda	1745	209	1	1535
10	Government Arts College, Vav	6861	80	3	6778
11	Government Science College Valod	2787	49	22	2716
12	Government Science College Vankal	1309	20	5	1284
13	Government Science College, Gandhinagar	7629	41	8	7580
14	Govt. Arts & Commerce College Paddhari	4598	86	51	4461

15	Gujarat Arts and Science College, Ahmedabad	61908	9667	237	52003
16	Gujarat Commerce College, Ahmedabad	14221	8780	10	5380
17	H A College of Commerce	5374	1577	3	3782
18	H K Arts College	45392	5079	78	39566
19	H L College of Commerce	34841	1107	19	33707
20	L D College of Engineering	43079	47	13	41359
21	M.N.College Visnagar	34933	4733	125	30070
22	MICA	7513	246	2	7523
23	Narmada College of Science and Commerce	19743	1883	33	17827
24	Navgujarat Arts & Commerce College	36261	6013	867	25156
25	Nima Girls Arts College	11140	987	55	10098
26	R. R. Mehta College of Science and C. L. Parikh College of Commerce	12879	785	1	11987
27	Rashtriya Shayar Jhaverchand Meghani Arts College, Chotila	3629	44	11	3574
28	Shree M. P. Shah Arts and Science College Surendranagar	24543	6191	332	18020
29	Shri and Smt. P.K.Kotawala Arts College	36263	936	57	35270
30	Sir P. T. Sarvajani College of Science	10550	379	21	10150
31	Smt. R. M. Prajapati Arts College Satlasana	12416	381	60	11975
32	St. Xavier's College	60368	8509	0	51674
33	The HNSB Ltd. Science College Himatnagar	5101	92	25	4984

Table 1: Details of 33 Colleges' Bibliographic Records Merged with GujCat

2.1.4.1.2. NERCat, an online catalogue of books in universities in the North-Eastern Region, is another subset of IndCat. NERCat is designed and implemented to restrict the searching of bibliographic records to university libraries in the North-Eastern region and to promote resource sharing amongst university libraries in the North-Eastern region. Figure 6 depicts the search interface of NERCat.

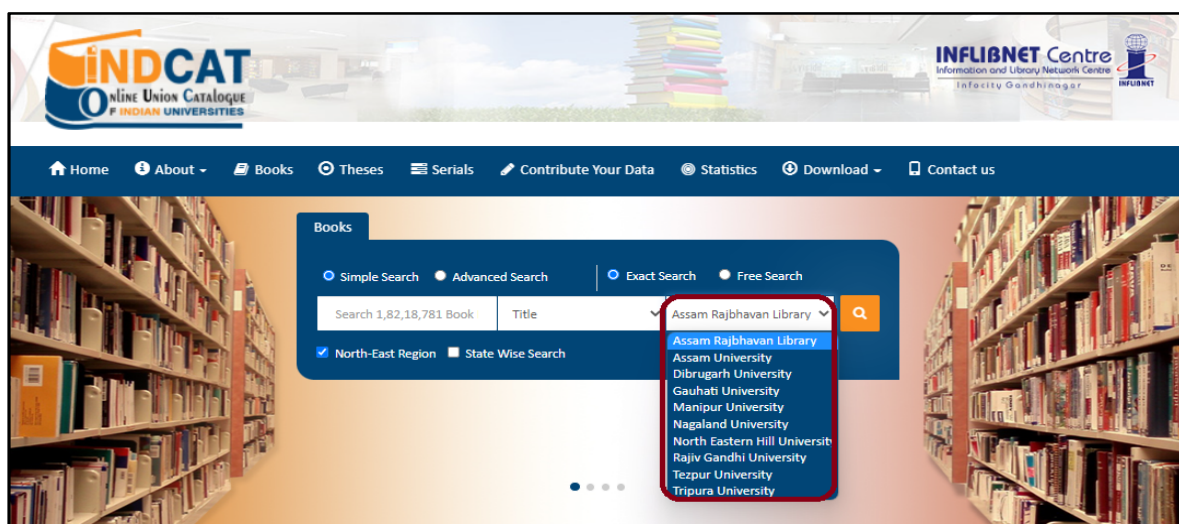


Fig. 6: NERCat

2.1.5. Bibliographical Records of Books from Universities Added in IndCat during 2021-2022

During the year 2021-2022, the data of 33 Universities were checked, authenticated, matched and merged with INFLIBNET's Online Union Catalogue of Indian Universities (IndCat) using UCMS 2.0 software. Details are given below in Table 2:

Sl. No.	Name of the Universities	Imported Records	*Duplicate Record	#De-Duplicate Record (Matched)	^Merge Record
1	Acharya Nagarjuna University, Guntur (AP)	73,378	6376	14764	41,003
2	Alagappa University, Karaikudi (Tamil Nadu)	1,04,060	15,527	4939	51,618
3	Anna University, Chennai (Tamil Nadu)	1,50,787	58,521	21	92,245
4	Assam Rajbhavan Library	2,350	40	33	2276
5	Avinashilingam University for Women, Coimbatore (Tamil Nadu)	12,013	2,581	962	14,407
6	Bangalore University, Bengaluru (Karnataka)	1,80,615	12840	16200	1,00,393
7	Bharathidasan University, Tiruchirappalli (Tamil Nadu)	69,125	10,945	6065	36,891
8	Central University of Tamil Nadu, Thiruvallur (Tamil Nadu)	33,609	354	439	5,084

9	Chaudhary Charan Singh University, Meerut (Uttar Pradesh)	101012	6,549	3373	35,465
10	Cochin University of Science & Technology, Kochi (Kerala)	1,72,551	12,013	23411	1,00,703
11	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (Maharashtra) (Updated)	2,62,172	7,747	6,018	2,33,742
12	Gulbarga University, Gulbarga (Karnataka) (Updated Data)	146002	40,074	4609	1,00,661
13	Indian Institute of Technology, Bombay (Maharashtra)	2,74,291	4,126	27769	2,42,396
14	Indira Gandhi National Open University, New Delhi (Delhi)	90,603	31,122	9420	50,061
15	Indira Kala Sangit Vishwavidyalaya, Khairagarh (Chhattisgarh)	25,921	937	775	18,189
16	Jiwaji University, Gwalior (Madhya Pradesh) (Updated Data)	47,117	2,138	2,782	32,669
17	Kavayitri Bahinabai Chaudhari North Maharashtra University	71015	7835	1199	48,431
18	Maharaja Sriram Chandra Bhanja Deo University, Baripada (Odisha)	16029	1311	899	13,819
19	Mahatma Gandhi Central University, Motihari (Bihar)	2171	290	113	1,768
20	Mahatma Gandhi Chitrakoot Gramoday Vishwavidyalaya, Chitrakoot (MP)	14,073	1347	3329	9,390
21	Mahatma Gandhi University, Kottayam (Kerala)	1,68,072	21,322	12344	1,12,971
22	Manipur University, Imphal (Manipur)	85,406	18,485	8840	32,826
23	Maulana Azad National Urdu University, Mumbai (Maharashtra) (Updated)	42,519	1,786	5940	32,322
24	Nagaland University, Nagaland	47,927	2,747	7418	34,700
25	Pt. Ravishankar Shukla University, Raipur (Chhattisgarh) (Updated Data)	1,19,052	6008	10521	8,58,729

26	Rajiv Gandhi Proudlyogiki Vishwavidyalaya, Bhopal (Madhya Pradesh)	31,615	20,898	14	4,209
27	Rajiv Gandhi University, Itanagar (Arunachal Pradesh) (Updated Data)	39,201	4,595	4292	30,314
28	Rani Lakshmi Bai Central Agricultural University, Jhansi (Uttar Pradesh) (New)	1,227	6	44	1,177
29	Swami Ramanand Teerth Marathwada University, Nanded (Maharashtra)	44,963	3,285	4901	27,907
30	Tata Institute of Social Sciences, Mumbai (Maharashtra) (Updated)	1,17,111	27,326	14026	75,694
31	Tilak Maharashtra Vidyapeeth, Pune (Maharashtra)	95,038	34,161	5654	44,004
32	University of Allahabad, Allahabad (Uttar Pradesh)	3,18,145	1,99,261	10587	1,08,297
33	Vidyasagar University, Midnapore (West Bengal)	58,798	5,836	10140	33,313

Table 2: Details of 33 Universities' Bibliographic Records Merged with IndCat

Building and maintaining a union catalogue is an ongoing activity involving the 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 rapid growth. The union catalogue of books has grown from 2.7 lakh records in 1999 to 129 lakh records in 2022 as depicted in Table 3 and Figure 7 given below:

Year	Processed Records (in lakhs)
1999	2.7
2003	5.8
2007	30.3
2011	61.8
2013	73
2015	75.7

2017	83
2019	84.19
2020	95
2021	115
2022	129

Table 3: Growth in No. of Bibliographic Records in IndCat from 1999 to 2022

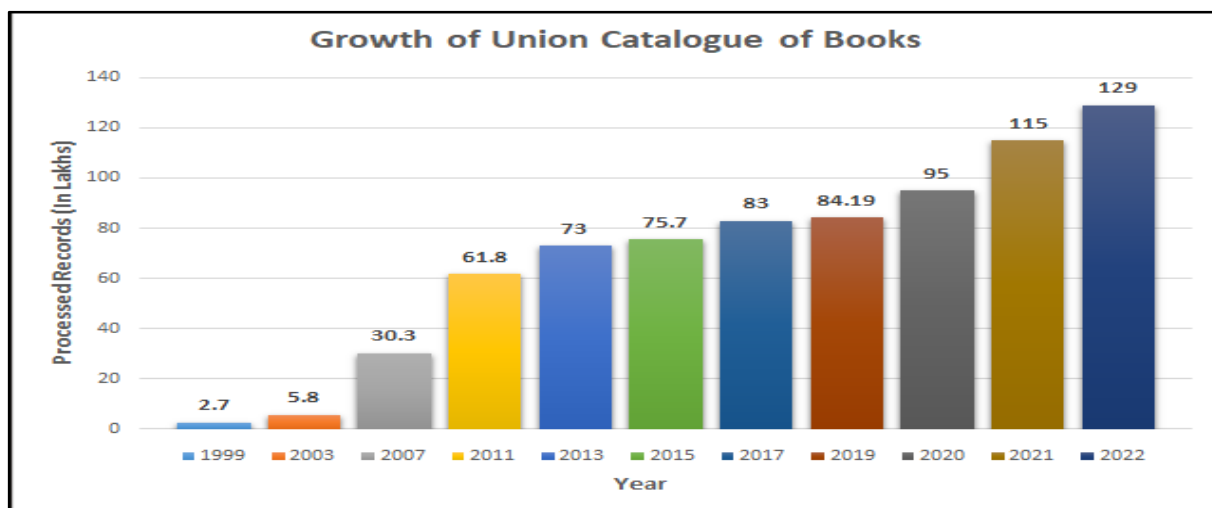


Fig. 7: Growth of Union Catalogue of Books

The union catalogue of books (IndCat) has bibliographic records of documents available in libraries of 205 contributing universities. The Category-wise participating universities are given in Table 4 and depicted in Figure 8.

Categories-wise University List	No. of Universities
12 (B) / 2 (f) State Universities	114
Central Universities	31
Deemed Universities (Receiving Plan Grants from UGC)	19
Centrally Funded Technological Institute	13
2 (f) State Universities	6
Deemed Universities	5
Open University	2
Private Universities	7
Others	8
Total Participated Universities	205

Table 4: Category-wise Participating Universities

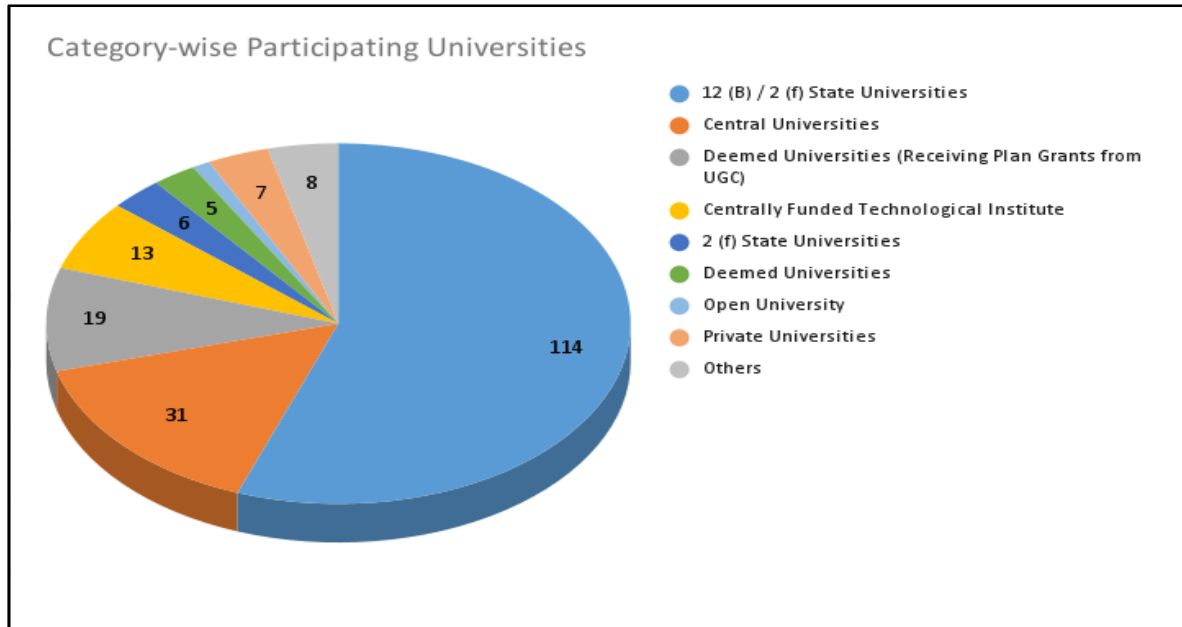


Fig. 8: Category-wise Participating Universities

The State-wise participating universities are given in Table 5 and depicted in Figure 9.

Sl. No.	Name of the States	No. of University
1	Andhra Pradesh	17
2	Arunachal Pradesh	1
3	Assam	6
4	Bihar	5
5	Chandigarh	1
6	Chhattisgarh	3
7	Delhi	8
8	Goa	1
9	Gujarat	22
10	Haryana	5
11	Himachal Pradesh	4
12	Jammu and Kashmir	5
13	Jharkhand	2
14	Karnataka	13
15	Kerala	10
16	Madhya Pradesh	8
17	Maharashtra	19
18	Manipur	1
19	Meghalaya	1

20	Mizoram	1
21	Nagaland	1
22	Odisha	5
23	Puducherry	1
24	Punjab	5
25	Rajasthan	10
26	Sikkim	1
27	Tamil Nadu	14
28	Telangana	2
29	Tripura	1
30	Uttar Pradesh	16
31	Uttarakhand	6
32	West Bengal	10
Total Universities		205

Table 5: State-wise Participating Universities

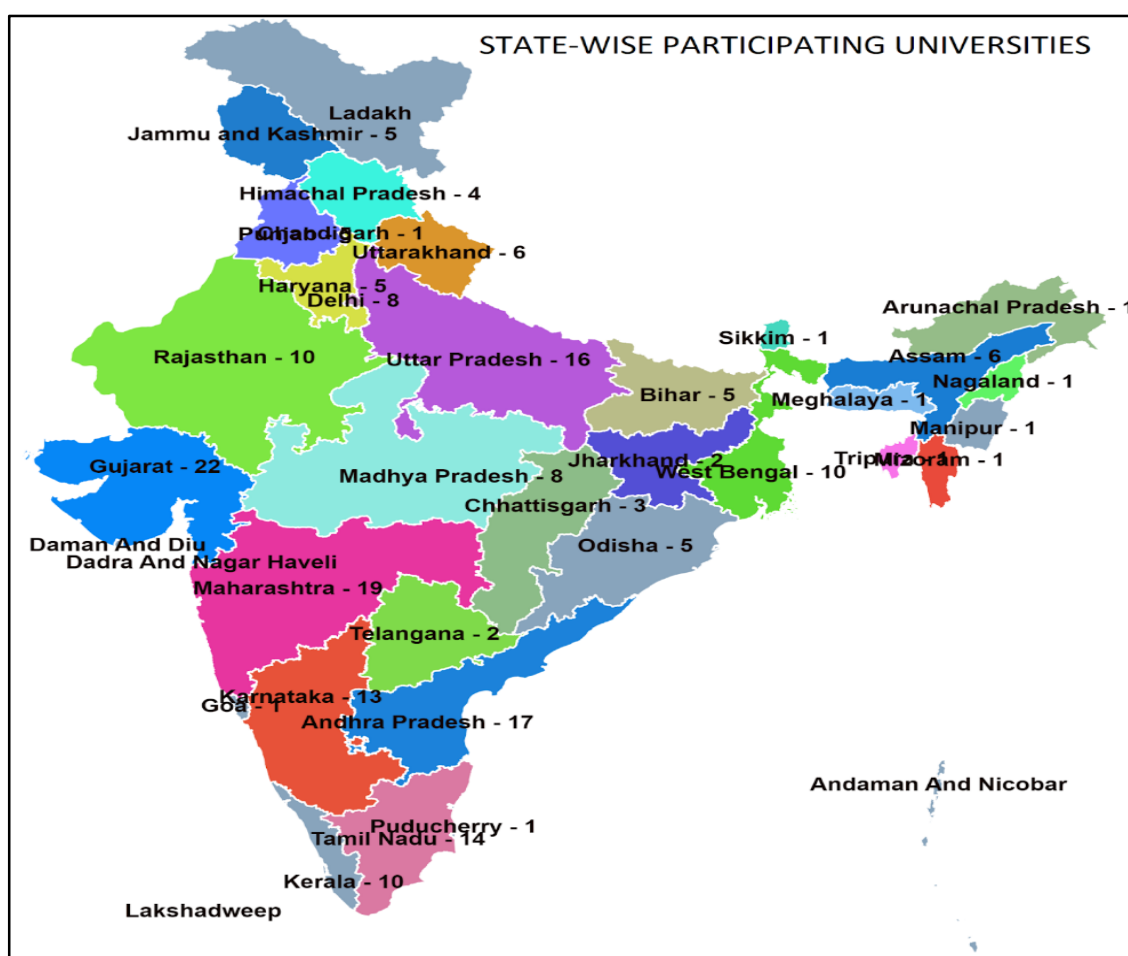


Fig. 9: State-wise Participating Universities

2.1.6. Online Copy-Catalogue System (OCS 2.0)

The Centre has developed the "Online Copy Catalogue System" (OCS 2.0)" for the online contribution of book data for the INFLIBNET's Online Union Catalogue of Indian Universities (IndCat). It is a subset of IndCat. It is an online cataloguing tool and it is fully supported with SOUL and other library management software.

OCS is a middleware that works with LMS Server and IndCat Server. The user will be able to submit data directly to IndCat and can download it from IndCat server if it is available. This will help the libraries to avoid delays in submitting the data and real-time updates will be displayed on IndCat. The libraries need not submit offline data by sending MARC 21 records or backup files of software.

OCS provides 'IndCat' with a simple and advanced search. It gives 'copy', 'edit' and 'create new' options for creating online bibliographic records of book data and then sharing with INFLIBNET's IndCat, which benefited academic communities around the world.

A total of 21 universities have started online data contributions through OCS Application.

2.1.6.1. Objectives of OCS 2.0

- To contribute maximum bibliographic records for the INFLIBNET's Union Catalogue (IndCat) through Online mode,
- Frequency of use and usefulness of OCS Application among the SOUL and KOHA Users of Indian Universities, and
- To promote resource-sharing activity.

2.1.6.2. Major Features of OCS 2.0

- It is a Windows-based application, which communicates directly to IndCat.
- It is fully compatible with SOUL and other library management software.
- It simultaneously affects the local database and IndCat Server. (So, no need to send offline records frequently to us)
- It provides a searching facility using different parameters i.e. Title, Author, Subject, Publisher, Year, ISBN etc.
- Facilitate browsing, copy and copy as a new records feature.
- Create a new catalogue of books and save it into Library Software and IndCat Server.
- It supports multilingual features.
- It supports deduplication (Matched), merging and indexing record processes.
-

2.1.6.3. Main Menus of OCS 2.0 (SOUL Compliance) Application

- Login to OCS
- Search from IndCat & Copy to SOUL
- Copy as a New (Found the record, but required editing in any field)
- Copy (Found the record, but not required editing)
- Create a New Catalogue (Not found record in IndCat)
- SOUL Acquisition/Gratis Items

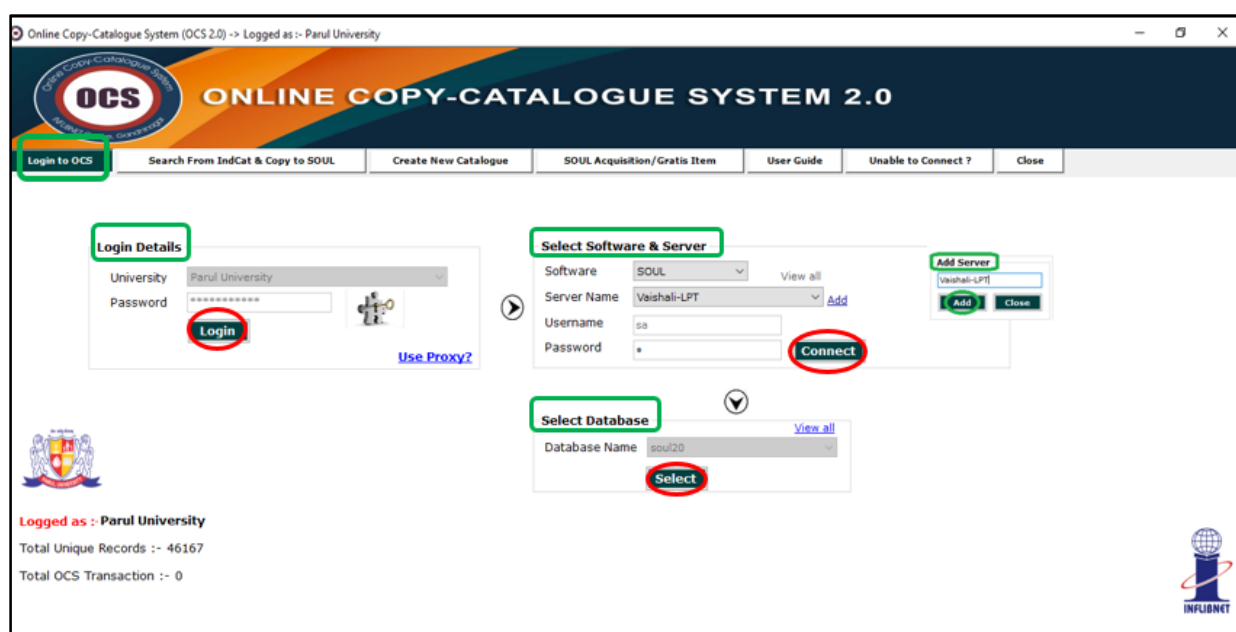


Fig. 10: Main Screen of OCS 2.0 (SOUL Compliance)

2.1.6.4. Main Menus of OCS 2.0 (Koha Compliance) Application

- Login to OCS
- Search from IndCat & Copy to Koha
- Copy as a New (Found the record, but required editing in any field)
- Copy (Found the record, but not required editing)
- Create a New Catalogue (Not found record in IndCat)

Fig. 11: Main Screen of OCS 2.0 (Koha Compliance)

2.1.6.5. Growth of OCS

A total of 27 Universities have started online cataloguing through the OCS 2.0 Application and a total of 8694 records have been contributed. Participating universities list with record details are given in Table 6 and Figure 12:

Sl.No.	University Name	Online Contributed Records
1	Sardar Patel University	2845
2	Chaudhary Charan Singh University, Meerut	2278
3	Dr.Babasaheb Ambedkar Marathwada University	929
4	Maharaja Ganga Singh University	528
5	Pt. Ravishankar Shukla University	523
6	Saurashtra University	505
7	Hemchandracharya North Gujarat University	187
8	Veer Narmad South Gujarat University	174
9	Parul University	148
10	Jain Vishva Bharati Institute	128
11	Maharshi Dayanand Saraswati University	109
12	Banaras Hindu University	108
13	Mohanlal Sukhadia University	93
14	Dibrugarh University	45

15	Maharaja Krishnakumarsinhji Bhavnagar University	33
16	Gujarat University	30
17	Himachal Pradesh University	6
18	University of Lucknow	6
19	Maharaja Sayajirao University of Baroda	3
20	Swami Ramanand Teerth Marathwada University	3
21	University of North Bengal	3
22	Tripura University	3
23	Jiwaji University	2
24	Dravidian University	2
25	Chhatrapati Shahu Ji Maharaj University	1
26	Maharaja Sriram Chandra Bhanja Deo University	1
27	Sant Gadge Baba Amravati University	1
Total No. of Records		8694

Table 6: Participated Universities List with record details for OCS

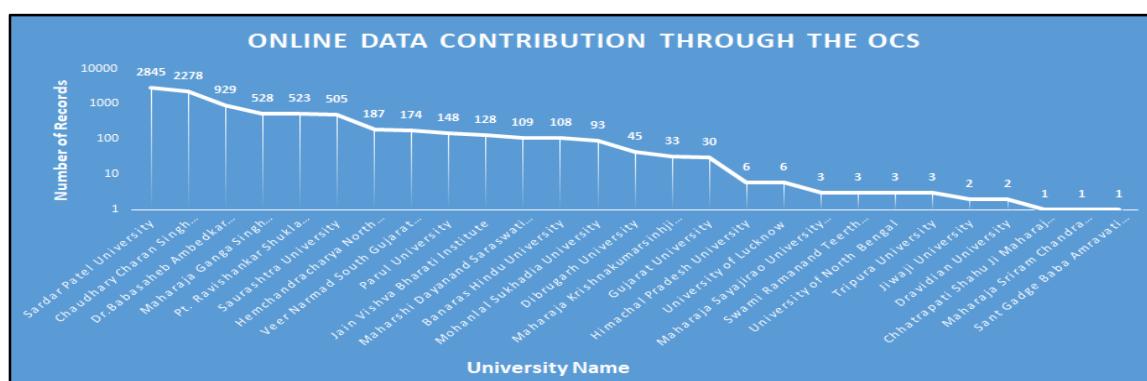


Fig. 12: Growth of OCS

2.1.6.6. Main Portal of Online Copy-Catalogue System (OCS 2.0)

OCS 2.0 Portal was launched by Prof Yogesh Singh (Hon'ble Chairman of Governing Board, INFLIBNET Centre and Vice-Chancellor of Delhi Technological University, New Delhi) on 18th August 2021. Figure 13 depicts the main portal of OCS 2.0.

This Portal is designed and developed by the INFLIBNET Centre. It is mainly used to promote cooperative cataloguing and avoid duplication of efforts. It is one of the initiatives which helps Institutions to built-up their own catalogue using INFLIBNET's Union Catalogue (IndCat). It is fully

supported with SOUL and other library management software. A total of 27 universities have started online data contributions through OCS for IndCat.



Fig. 13: Main Portal of OCS 2.0

2.1.7. Union Catalogue Management System 2.0 (UCMS 2.0)

The Centre has developed an in-house application called Union Catalogue Management System 2.0 (UCMS 2.0). It is purely used for the development of the Union Catalogue Database. It allows you to build and manage bibliographic records of Indian university libraries. It supports Unicode multilingual Data and MARC ISO 2709 Structure. It is a windows-based desktop application that is developed on the Microsoft platform. For both front end as well as back end used community versions which are free for developers.

2.1.7.1. Main Screen of UCMS 2.0 with Main and Sub Menus

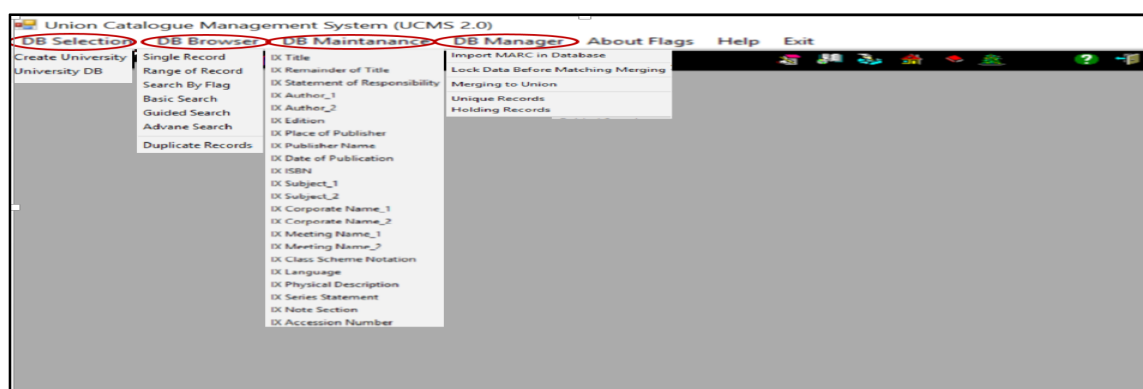


Fig. 14: Main Screen of UCMS 2.0 with Main and Sub Menus

2.1.7.2. Features and Functionalities of UCMS 2.0

Following are the main features and functionalities of UCMS 2.0:

- **Data Import:** UCMS 2.0 provides the facility to Import the Data. Data should be available in MARC format. DDString is being generated at the time of importing the data. Here, a total of 7 fields are considered in DD String i.e., Title, Subtitle, Author, Place, Publisher, Year and Edition.
- **Duplicate Check:** It checks duplicate records within the university. If found then it gives the flag "D" and Accession No. is added to the original record.
- **Duplicate Accession Nos.:** It checks duplicate Accession Numbers also. If found then it gives the flag "DA" and that record is not considered for the next process.
- **Field Browsing:** It provides browsing feature of all the fields i.e. Title (245\$a), Author (100\$a), Author (700\$a), Place (260\$a), Publisher (260\$b), Year (260\$c), Edition (250\$a), ISBN (020\$a), Class No. (082\$a), Subject (650\$a), Accession No. (852\$p) etc.
- **Authentication of data** (Editing of Typo Errors Globally and Swapping the Values Field to Field).
- **De-Duplicate/Matching Data Process:** It checks the DDString with existing university data. If found then it gives the flag "DD". It means that the DD record is already matched with an existing record. So, it takes only local holdings details i.e. University Name with Code and Accession No.
- **Merging Process:** If not found the data with existing university records then it gives the flag "M", which means data has been merged with IndCat.
- **Data Indexing:** After completion of the above process university-wise data is to be indexed. We used SOLR for data indexing. The indexing process is mainly used for searching and retrieval of the data.
- **Data Availability at IndCat:** After completion of the above processes, the data is readily available on IndCat Web site.
- **Flag-wise reports:** It provides the flag-wise reports, i.e. D, DA, DD, M (D – Duplicate Records, DA – Duplicate Accession No., DD – De-Duplicate Records, M – Merged Records).
- **Phase-wise Data:** It provides the process of Phase-wise (Updated) Data.

2.1.8. Major Works accomplished during 2021-2022

- The data of 33 Indian universities were checked, authenticated, matched and merged with INFLIBNET's Online Union Catalogue of Indian Universities (IndCat);
- Online Correspondence for IndCat: Emails were sent to Indian Universities for the contribution of data for IndCat and also follow-ups were taken by sending reminders and telecommunication;
- GujCat 2.0 portal was launched by Shri M Nagarajan, Director, Higher Education & C.E.O, Knowledge Consortium of Gujarat, Govt. of Gujarat on 22nd September 2021. A total of 33 colleges have contributed their bibliographic records for GujCat;
- The Centre has developed OCS 2.0 Application (SOUL and Koha Compliance) for online data contribution and it simultaneously provides online effect with LMS Server (SOUL, Koha) and IndCat Server. A total of 27 universities have been started online data contribution through OCS Application;
- Online Correspondence for the OCS: We have sent an email to Indian Universities to Install and start the OCS 2.0 Application for online data and also taken the follow-up by sending reminders and telecommunication;
- The OCS Web Portal was launched by Prof. Yogesh Singh (Hon'ble Chairman of Governing Board, INFLIBNET Centre and Vice-Chancellor of DTU, New Delhi) on 18th August 2021;
- We have added more features to UCMS 2.0 which make it a more robust system for catalogue management i.e., Free Text Search and Character Length wise Search for authenticating the data.

2.2. Union Catalogue of Theses

The Union Catalogue of Theses consists of bibliographic records of doctoral theses submitted to the universities in India. The database contains 4,41,725 unique bibliographic records of the theses awarded by 444 Indian universities/institutions of higher learning in all disciplines for the reported period. 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 notifications from universities, University News and Records submitted by the individual researchers.

The compilation of the Union Catalogue of Theses commenced in 1995 with 52,000 bibliographic records of theses from 82 universities. The database has grown up to 4,41,725 records of theses as on 31st March 2022 from 444 universities over a period of 25 years.

The Centre receives a copy of the notification on the award of PhD theses from different universities across the country. Table 7 and Figure 15, given below depict the growth of the Theses database from 1995 to March 2022.

Year	No. of Universities	No. of Records
1995	82	52,000
1997	110	72,000
1999	149	1,15,000
2001	172	1,35,000
2003	198	1,48,000
2005	211	1,71,176
2007	213	1,75,206
2009	237	2,20,206
2011	245	2,38,475
2013	286	2,52,885
2015	301	2,65,727
2017	315	2,71,581
2019	456	4,37,627
2021	444	4,41,141

Year	No. of Universities	No. of Records
1996	95	65,000
1998	134	90,000
2000	160	1,28,000
2002	189	1,42,000
2004	209	1,52,000
2006	213	1,75,206
2008	237	2,20,206
2010	237	2,37,393
2012	270	2,44,927
2014	298	2,64,628
2016	315	2,69,195
2018	317	2,74,622
2020	443	4,39,101
2022	444	4,41,725

Table 7: Growth in Number of Records in Theses Database: 1995 – 2022

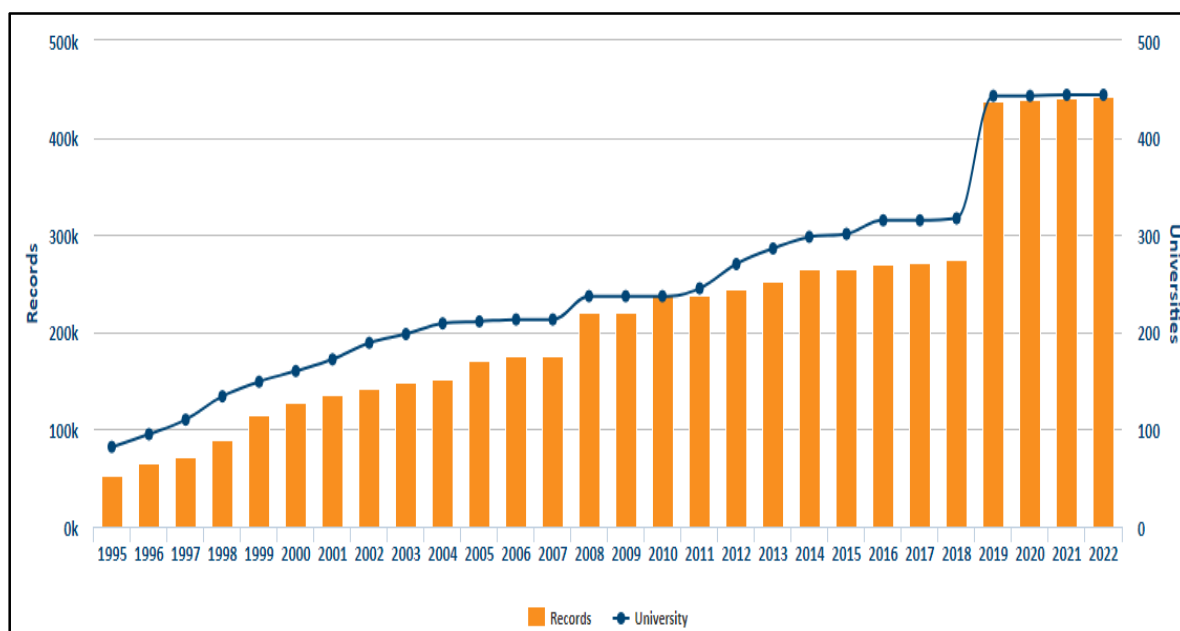


Fig.15: Year-wise Growth of Theses Database

The number of records and participating universities has increased manifold as new records from the Shodhganga have been imported directly.

The Theses database can be searched through IndCat interface by title, researcher, research supervisor, university, department, year of submission, keywords, etc. Bibliographic records of theses are linked to full-text records in "Shodhganga", if available.

2.3. Union Catalogue of Serials

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

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

The Serials Database includes bibliographic information of serials (including journals, periodicals, annuals and serials) available in various universities/institutes libraries and maintains the holdings information (includes available and missing volumes of the journals) in participating libraries. The Serials database contains 35,614 unique bibliographic records of the journal titles available from 229 Indian universities/institutions of higher learning in all disciplines for the reported period. Each bibliographic record for serials contains the title, publisher, frequency, year of publication, homepage URL and subject headings along with holdings details and names of the universities.

3. SOUL (Software for University Libraries)

3.1. SOUL 3.0 (Latest Version)

The INFLIBNET Centre brought up the SOUL 3.0 version of the in-house developed Library Automation Software SOUL in 2021. SOUL 3.0 software was launched by Honourable Prof D P Singh, Ex-Chairman, University Grants Commission, New Delhi on 24th February 2021. It is developed using the latest technologies for the operating system Microsoft Windows 10 and above. The software has the state-of-the-art Graphical User Interface wherein the user can personalize themes. Users would be able to change the font size, language and other parameters as per their requirements for a better visual and performance experience. Presently the menu in Hindi language

has been incorporated with extensive help from Librarian, Banaras Hindu University, Varanasi. The interface can be made available in other Indian languages. The new version has a built-in facility for sending SMS/email for each circulation transaction along with several enhancements. The new version of SOUL is responsive. As such, it will be compatible with touch screen laptops/tablets.

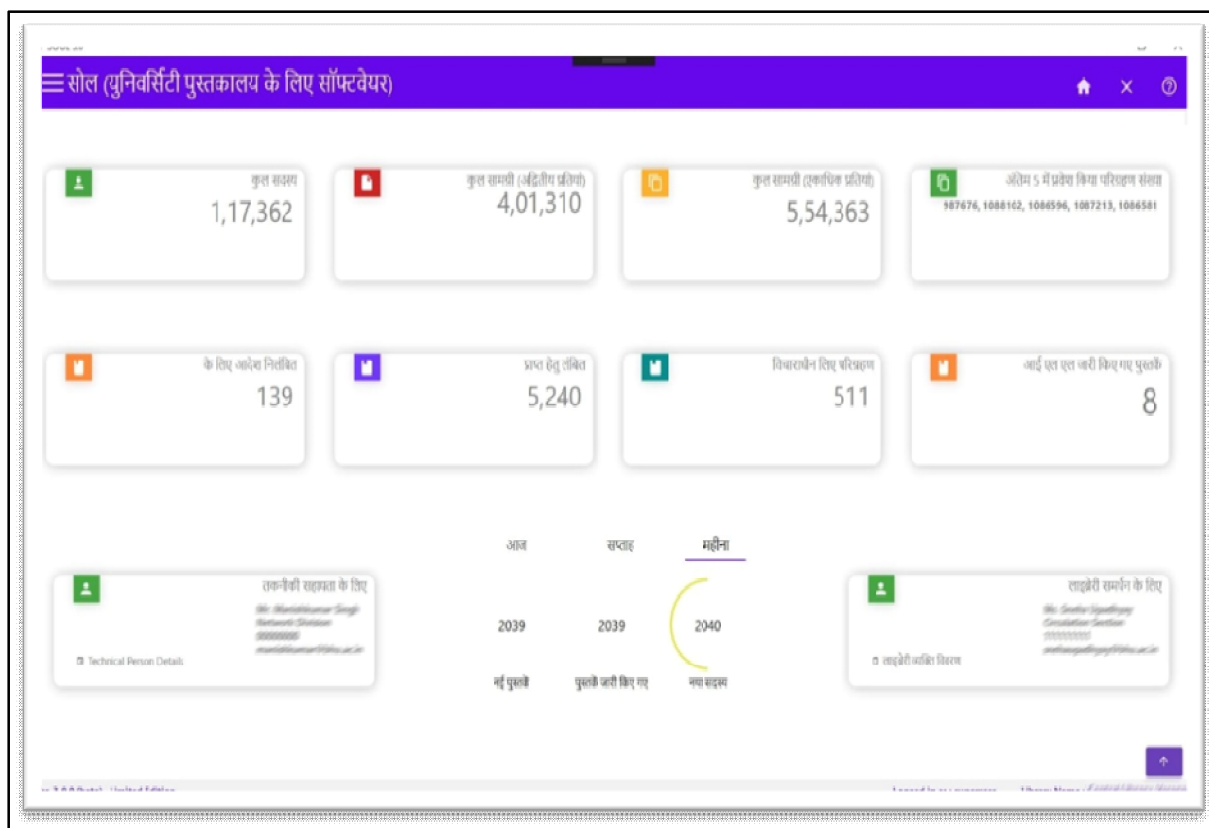


Fig. 16: SOUL 3.0 Dashboard (in Hindi)

During the period under the report, the centre has updated web OPAC and Android-based companion mobile application and provided updates to the users.

The centre has upgraded 536 institutions from SOUL 2.0 to SOUL 3.0 and provided SOUL 3.0 to 98 new institutions.

The centre has upgraded SOUL 3.0 from the beta version to the released version in 4 institutions, i.e. i) Gujarat University, Ahmedabad, Gujarat, ii) Banaras Hindu University, Varanasi, Uttar Pradesh, iii) Lalbaba College, Kolkata, West Bengal and iv) M J College, Jalgaon, Madhya Pradesh who were provided support for testing of SOUL 3.0 software.

The Centre has delivered many online lectures for the awareness of SOUL 3.0 and its new features to institutions across the country.

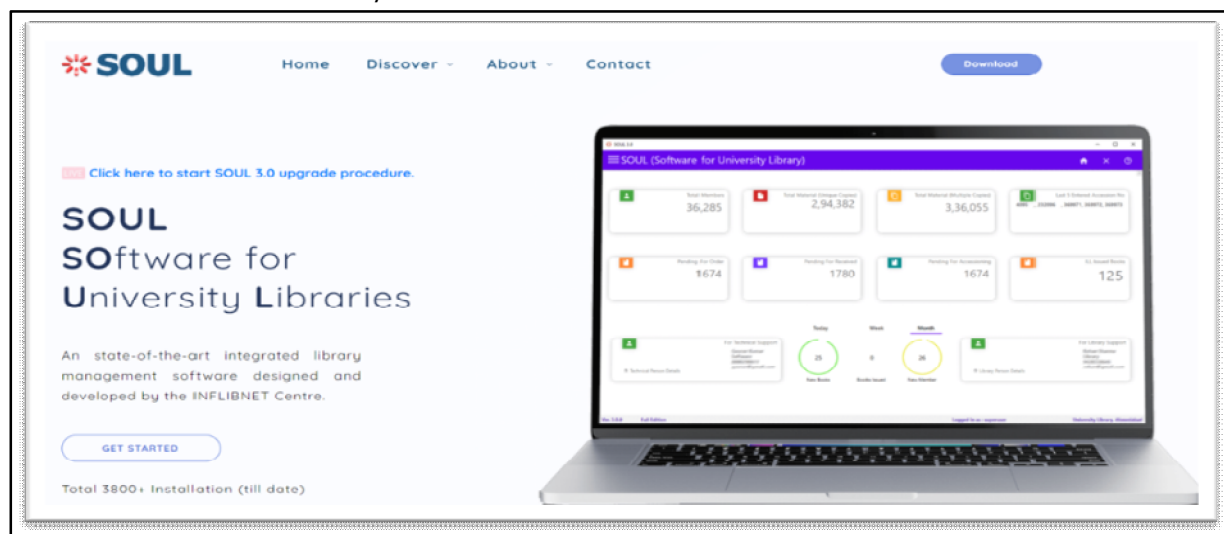


Fig.

17: Website of SOUL

A separate new website is available as shown in Figure 17, maintained by the Centre that provides detailed information about SOUL along with the updates of software.

Technologies: Microsoft Visual Studio 2017, WPF, MS SQL 2014, Microsoft Platform

3.2. SOUL 2.0

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

The SOUL 2.0 was released in January 2009 and was well received by the academic libraries in India. During the year under report, several minor enhancements were made in reporting and other functionalities.

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

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

3.3. Customization of SOUL 2.0, Data Conversion and Transfer

Customization of the SOUL 2.0 software is offered on a payment basis as per the requirement of libraries. Under this offer, SOUL 2.0 can be customized according to the requirements of a library. The software has been customised as per the requirements of the institutions.

The Centre provides an SMS Server application that facilitates libraries to send SMS through SOUL 2.0 application using SMS Gateway on a payment basis. So far 35+ institutions have started using SMS Server application services integrated with SOUL 2.0 as a customized option. The Centre has started to provide SMS Server free of cost to the institutions.

The Centre also undertakes jobs for converting clients' existing data from any format to MARC 21 format for importing it into SOUL 2.0 on a payment basis. During the year under the report, the Centre has converted data from MS Excel to SOUL 2.0 format. About 2.0+ lakhs records from 30+ institutes were converted into MARC 21 format.

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

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

3.4. SOUL-Web Edition

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

During the period under the report, the interface of the client was upgraded using material design bootstrap and Vue.js. The interface is theme-based, multilingual and user-friendly.

Technologies: Java, JSP, MySQL, REST protocol (JAX-RS), Apache Tomcat, Visual SVN, HTML, CSS, JS, JQuery

3.5. SOUL Software Sold and Upgraded for Existing Users

As depicted in Figure 18, a total number of 98 copies of SOUL 3.0 Software were sold during the year 2021-22 under report, which includes 80 copies of Limited Edition and 18 copies of Full Edition. A total of 536 copies of SOUL installations were upgraded from SOUL 2.0 to SOUL 3.0, which includes 273 copies of Limited Edition and 263 copies of Full Edition.

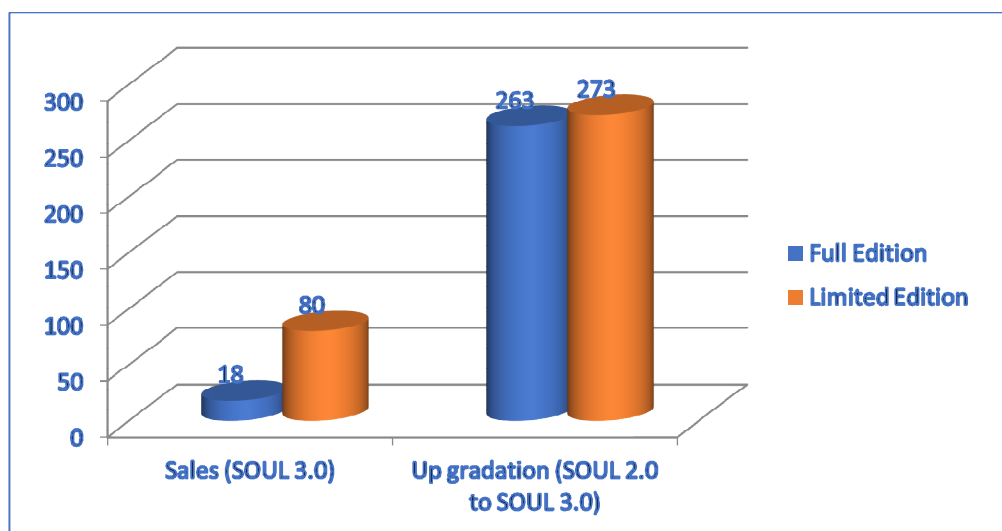


Fig. 18: SOUL 3.0 Sales and Up-gradation from April 2021 to March 2022

3.5.1. SOUL Support Services

SOUL Support Cell is a joint activity of the Software Development Group and Human Resource Development Group of the Centre. The SOUL Support Cell helps in handling queries and troubleshooting related to SOUL software, its installation and usage for a user base of 3,941 across the country as per the details given in **Appendix VI**. The SOUL Support Cell coordinates with the SOUL users and SOUL developers for resolving queries regarding SOUL software and customization issues raised by them. The SOUL Support Cell consists of staff members with library and computer science backgrounds. The tools used for handling queries are mentioned below and depicted in Figure 19.

The Centre held a virtual meeting with the officials of Mahatma Gandhi Institute (MGI), Mauritius to sign a MoU between the INFLIBNET Centre and Mahatma Gandhi Institute (MGI), Mauritius for the computerization of their MGI Library using SOUL 3.0 on 13th January 2022.

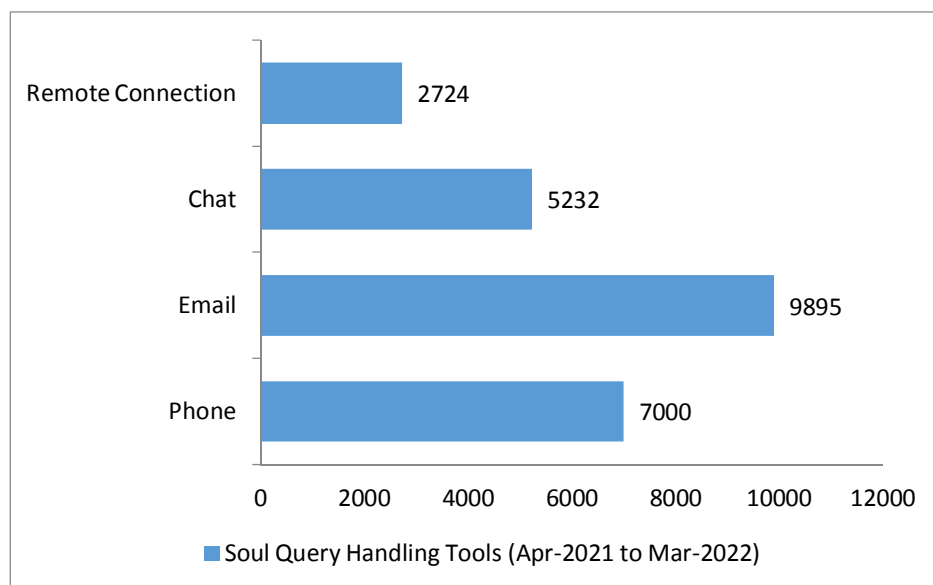


Fig. 19: SOUL Query Handled by SOUL Technical Assistants

- **Telephone Helpline:** The Centre has a dedicated telephone line (079-23268300 -8307) for handling queries from SOUL users.
- **Instant Messaging:** The Centre has created a Google email ID (soulhelp0007@gmail.com) to provide support to SOUL users through Gmail and Google Talk/Chat.
- **Remote Connection:** SOUL Support Cell uses software such as AnyDesk, Teamviewer, ShowMyPC, etc. to remotely get connected with the User's SOUL server to view and solve their problems in real-time. This method is used for fixing the problem when all other methods of solving the problems do not provide desired results.
- **Onsite Visit:** Besides all the 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 the user wants SOUL Technicians to install and upgrade the SOUL at their Institute.
- **Frequently Asked Questions (FAQs):** FAQs were developed based on the prolonged experience of SOUL Technicians. FAQs are answered with screenshots and step-wise solutions to the queries that are being asked frequently. These FAQs are available on SOUL Web site at: <https://soul.inflibnet.ac.in/faq.php>.

-
- **Soul Query Management System (SQMS):** The Centre has developed new software called "Soul Query Management System (SQMS)" that helps to keep track of problems and queries from all active users of SOUL Software. This software helps to serve the users more efficiently by keeping a record of the queries, their status and the solution offered, which can also help to solve queries from other users.
 - **Documentation and Video Tutorials of SOUL 3.0:** Users can download flow charts of all modules of SOUL 2.0 as well as of SOUL 3.0. E-book version of the User Manual to learn the operations of SOUL on their own from the SOUL Software website. Users can also download SOUL Demo Version (up to 500 entries) and can practice. Video tutorials of SOUL 3.0 modules have been uploaded on the SOUL website. The same can be viewed at <https://soul.inflibnet.ac.in/video.php>.

4. Open Access, Open Data and Research Support Initiatives

The current system of scholarly communication inhibits rather than promotes access to scholarly information at a time when technology can enable vast improvement in access, and speed of publication and save the cost of publication. 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 essential premise of the open access movement is that the scientific community and society in general benefit 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 systems.

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

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

Shodhganga is a digital repository set up in 2010 for the submission of electronic versions of theses and dissertations by students/research scholars in universities in India and makes them available in open access to the worldwide academic community in response to the UGC Notification (Minimum Standards & Procedure for Award of M.Phil. / PhD Degree, Regulation, 2009 and amendment made in 2016) where-in the responsibility of maintaining the digital repository of Electronic Theses and Dissertations (ETDs) is assigned to the INFLIBNET Centre. Shodhganga is using DSpace, open-source software that uses internationally recognized protocols and interoperability standards. Figure 20 depicts the homepage images of the Shodhganga website. The Centre has developed a

separate ingestion interface for easy submission for theses by University Coordinators and Research Scholars. The repository provides a platform to research scholars in universities to deposit, re-use and share their theses and dissertations. Shodhganga was initiated in the year 2010 and a total of 1,171 Theses were uploaded during that year. Then, after a gap of 5 years that is till 2016, the number of Theses grew to 1,16,000 in total, which means more than 1 Lakh Theses were uploaded in total during those 5 years. After that, it took a gap of only 2 years to reach 2,11,800 Theses. Till 31st March 2022, the total number of theses deposited in the repository has grown up to 3,50,000 by the contribution of 538 contributing Universities whereas 50,501 full-text theses have been submitted to the repository during the reported period (FY: April 2021-March 2022). The launching ceremony for the 3,00,000 thesis as “Uploading of 3,00,000th Thesis into Shodhganga: a reservoir of Indian Theses” was organised online by the INFLIBNET Centre on 09th April 2021 and the launching of the thesis was done by Prof Rajnish Jain, the Hon’ble Secretary, University Grants Commission, New Delhi in the presence of Prof J P Singh Joorel, Director, INFLIBNET Centre. In the last 4 years (FYs: 2018-2022), an average of 40,000 theses were getting uploaded, which is equal to the number of PhD awarded per year as per the University Grants Commission annual report.



Fig. 20: Home Page Screenshots of Shodhganga

The organisation of theses in Shodhganga reflects the academic structure of every university in the country which offers PhD programmes to facilitate the scholars to submit their theses in the respective Departments / Centres / Colleges of their Universities. The Ingestion interface of DSpace was customized to meet the specific requirements and make the process of submission easy. The customized ingestion interface is simple to use and involves a lesser number of steps in comparison to the default submission interface of DSpace developed by HP and MIT. The interface facilitates the submission of theses either by university administrators, university representatives or researchers. The Shodhganga website provides information that is helpful to the researchers, research

supervisors and university authorities concerning ETDs including their responsibilities, access policies, submission process, metadata structure, a guideline for submission, tutorial, manual, etc.

Shodhganga provides four types of searches on its homepage vis-à-vis simple search, advanced search, Google search and subject search. Besides default search and browse options provided by the DSpace, a subject-based browse and in-house developed search interface is embedded into Shodhganga consisting of six major subject categories at the first level and 28 subject categories at the second level. The major six subject categories are Arts and Humanities, Clinical, Pre-Clinical and Health, Engineering and Technology, Life Sciences, Physical Sciences and Social Sciences. The subjects are extended to the micro-level using Web of Science 260 Categories. For initial coverage, the subjects are taken from the Library of Congress Subject Heading List (LCSH) in the form of Keywords. Figure 21 and Figure 21(a) depict a subject division of Shodhganga.

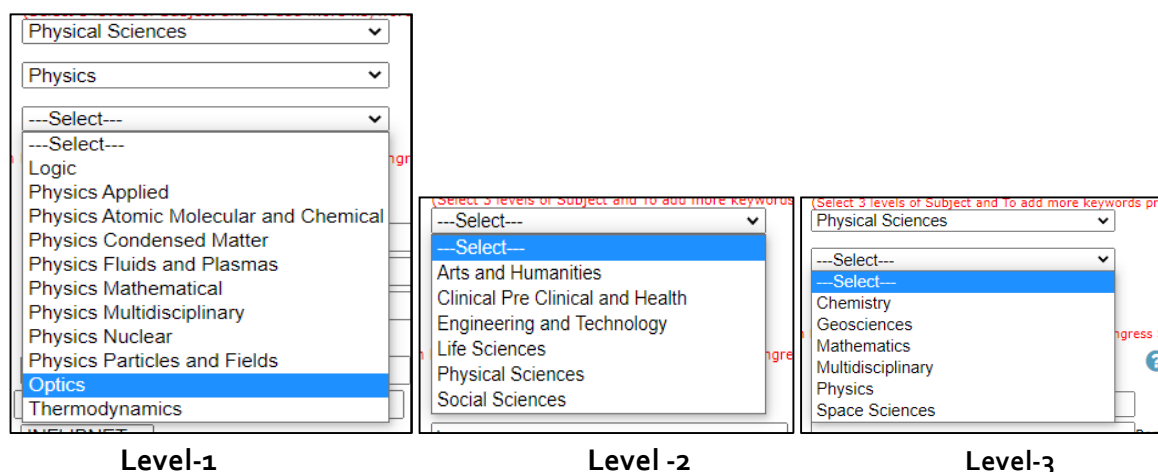


Fig. 21: Subject division Interface of Shodhganga

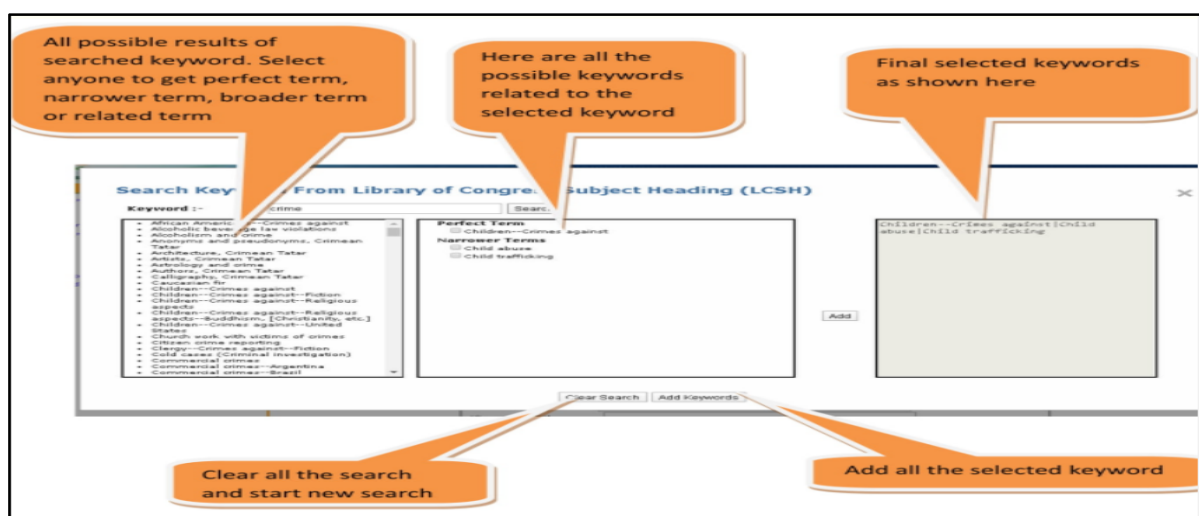
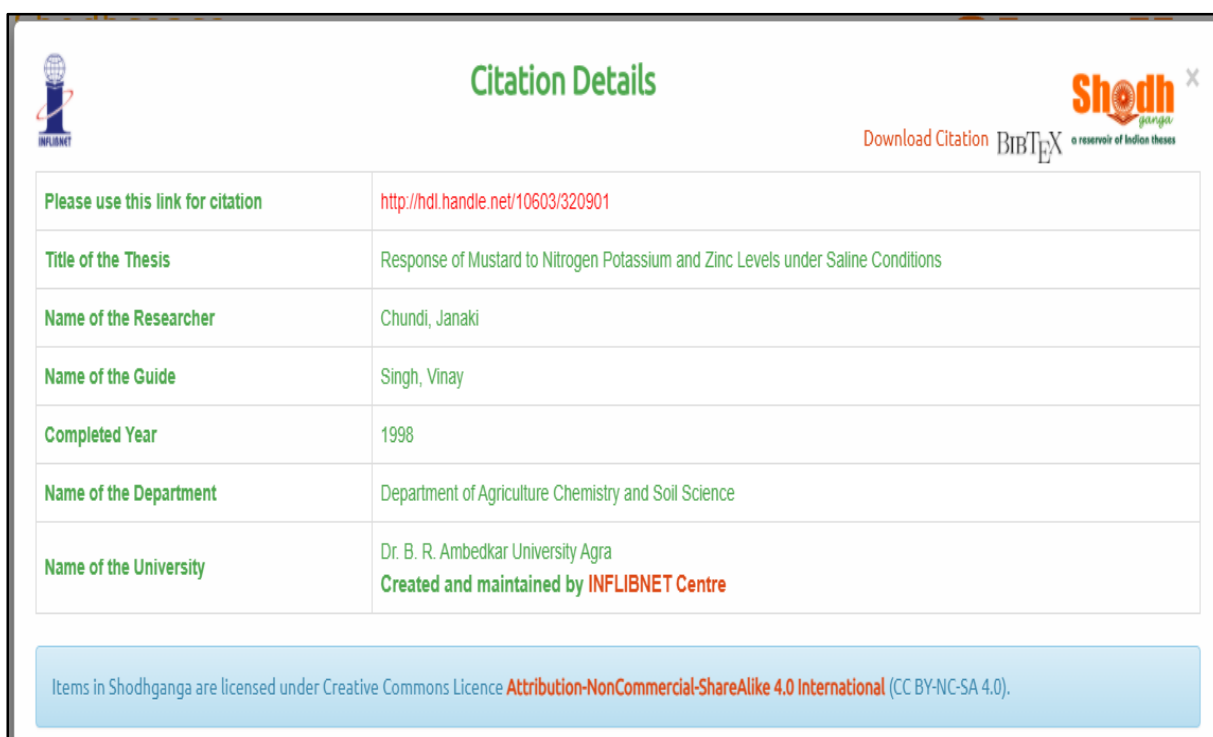


Fig. 21 (a): Subjects/Keywords from LCSH Subject Heading List

4.1.1. New Features available on Shodhganga Website

As mentioned above, Shodhganga is using DSpace as its basic platform which is being customized by our Centre with an ingestion interface for uploading theses. The basic storage of the theses is in the bitstream of Asset Store in DSpace Architecture. Whenever an online query is received, DSpace compiles the bitstream file as a PDF and delivers it to the user. The thesis files are split into various chapters for upload and download to save bandwidth from the beginning. The search results from search engines the long URLs, which generally do not have a title and metadata, this long pending issue is addressed by developing Pop-up citation details with proper metadata. This feature also has the facility to download the citation in a common exchangeable standard format such as BibTeX as shown below in Figure 21 (b). Thesis citations can be directly imported into Reference Management Tools. This has been appreciated by various experts and scholars.



Citation Details	
Please use this link for citation	http://hdl.handle.net/10603/320901
Title of the Thesis	Response of Mustard to Nitrogen Potassium and Zinc Levels under Saline Conditions
Name of the Researcher	Chundi, Janaki
Name of the Guide	Singh, Vinay
Completed Year	1998
Name of the Department	Department of Agriculture Chemistry and Soil Science
Name of the University	Dr. B. R. Ambedkar University Agra Created and maintained by INFLIBNET Centre

Items in Shodhganga are licensed under Creative Commons Licence Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0).

Figure 21 (b): Citation Details

4.1.2. Restricted Dashboard and Subject Portal

Restricted Dashboard and Subject Portal help in searching and browsing facilities including various search options like University type-wise, Subject-wise, Language-wise, Department-wise, Year-wise, etc. A sample screenshot is given below in Figure 22.

Chemistry (29420)	Engineering (24365)	Education (19674)	Physics (18935)
Commerce (17032)	Management (14113)	Economic (12734)	English (12487)
Hindi (12433)	Botany (11971)	Zoology (11281)	Mathematics (9982)
History (9405)	Computer Science (8111)	Sanskrit (6818)	Biotechnology (6483)
Sociology (6293)	Political Science (5744)	Psychology (5478)	Geography (5268)
Biology (4762)	Business (4723)	Tamil (4572)	Humanities (3507)
Law (3503)	Philosophy (3105)	Microbiology (3100)	Social Science (3049)
Statistics (2929)	Pharmacy (2896)	Library (2725)	Life Science (2553)
Arts (2503)	Environmental Science (2184)	Bengali (1921)	Agriculture (1914)
Geology (1907)	Medical (1905)	Marathi (1647)	Public Administration (1446)
Anthropology (1393)	Home Science (1347)	Gujarati (1141)	Marine (902)
Malayalam (480)	Health Science (405)	Anatomy (245)	

Fig. 22: Restricted Dashboard and Subject Portal

Out of 3,50,000 theses analysed on 31st March 2022, Chemistry has the largest number of theses with 29,420 theses, followed by Engineering with 24,365 theses, and Education with 19,674 theses. The top 20 subjects theses appeared in Shodhganga are given below in Figure 23 which also shows that Chemistry is the leading research topic in India.

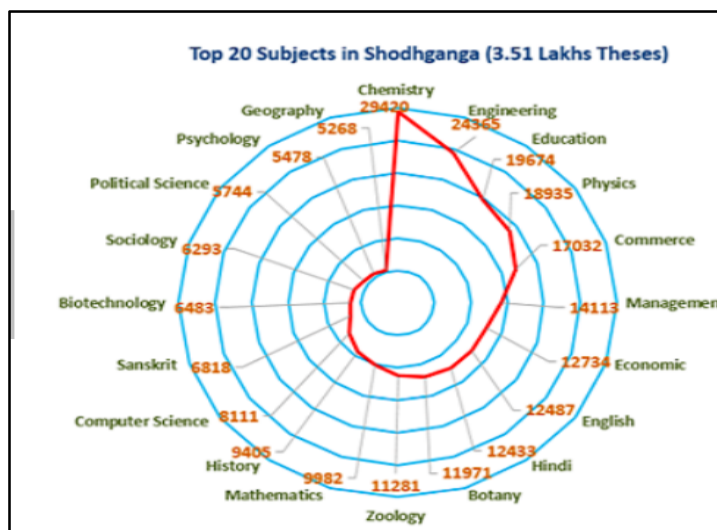


Fig. 23: Top 20 Subjects in total theses uploaded in Shodhganga

Similarly, Language theses are also listed separately, as mentioned in Figure 24.

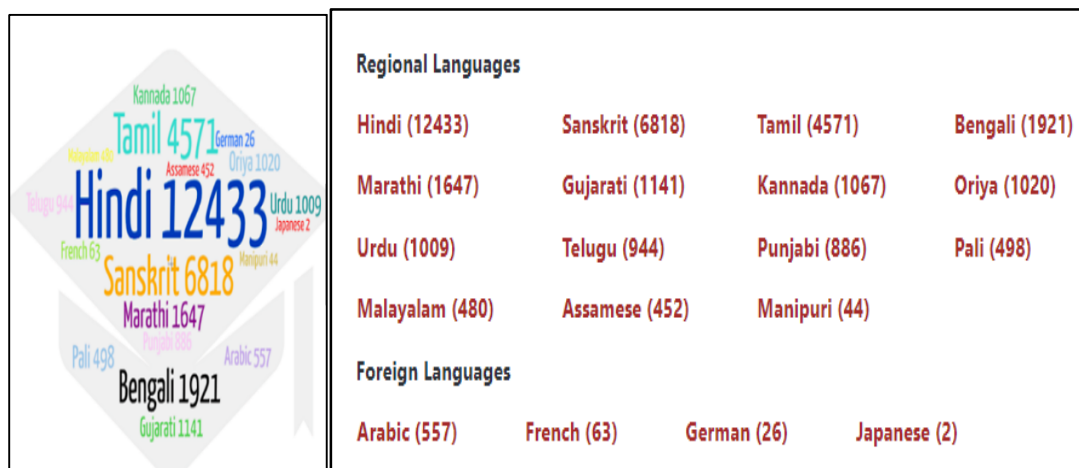



Fig. 24: Regional Language Theses

The Universities, while signing MoU with the INFLIBNET Centre, are granting non-exclusive rights to the INFLIBNET Centre for hosting their ETDs on Shodhganga under Creative Commons Licence (CC BY-NC-SA 4.0) Attribution-NonCommercial-ShareAlike 4.0 International . As on 31st March 2022, a total of 685 (640 Universities+45CFTIs/INIs) have signed MoU with the INFLIBNET Centre which includes 87 (63 universities +24 CFTIs) during the reported period. The list of universities who have signed MoU with the INFLIBNET Centre on Shodhganga is available at **(Annexure-1)** http://shodhganga.inflibnet.ac.in/annual_report/mou2021_2022.pdf.

Currently, a total of 538 universities are contributing their theses to the Shodhganga repository as per the UGC Notification. Without signing MoU also, 11 universities have contributed their Theses into Shodhganga during the reported period as shown in Table 8:

Sl. No.	Name of Universities which contributed theses without MoU	No. of Theses
1	Karnataka Veterinary, Animal and Fisheries Sciences University	102
2	Indian Institute of Technology (Indian School of Mines), Dhanbad	53
3	North Eastern Regional Institute of Science and Technology (NERIST)	29
4	Sri Sathya Sai Institute of Higher Learning	24
5	Maharashtra Animal and Fishery Sciences University	17
6	Guru Angad Dev Veterinary and Animal Sciences University	5
7	Bhupendra Narayan Mandal University	4
8	Jai Prakash Vishwavidyalaya	3
9	Jodhpur National University	2
10	Sabarmati University (Formerly known as Calorx Teachers' University)	2
11	Netaji Subhas Open University	1

Table 8: Contributing Universities without signing MoU

The total number of theses submitted into the repository has grown to 3,50,000 as on 31st March 2022. Figure 25 depicts year-wise Theses submissions into Shodhganga.

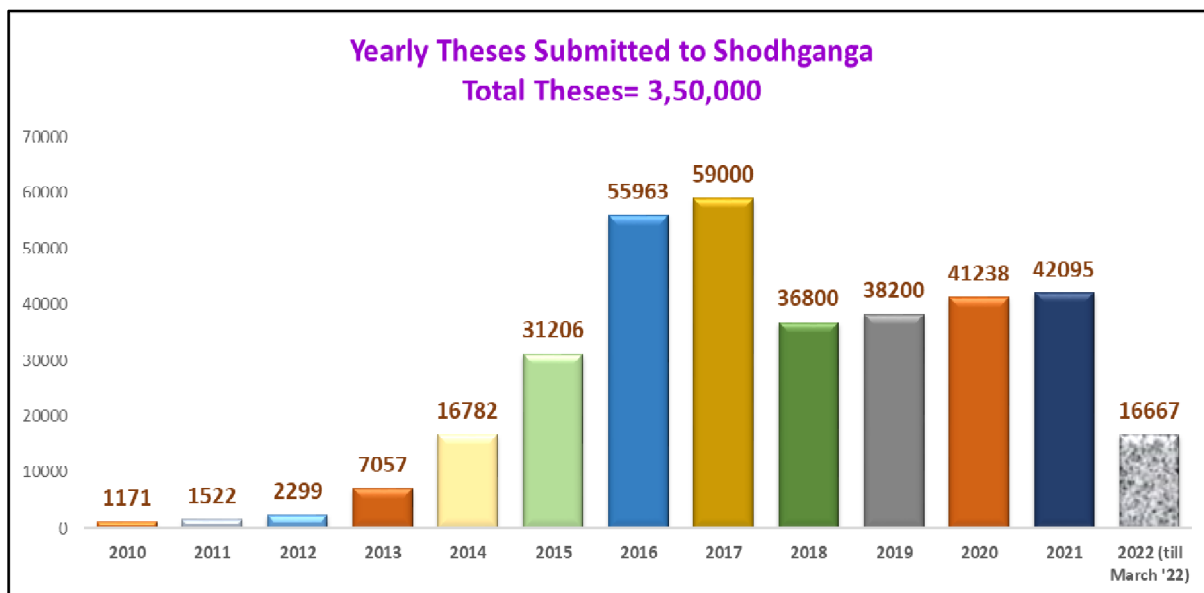


Fig. 25: Year-wise Theses Submission into Shodhganga

Figure 26 depicts Month-wise submissions into Shodhganga during the reported period. The Month of February witnessed exponential additions during the period under report.

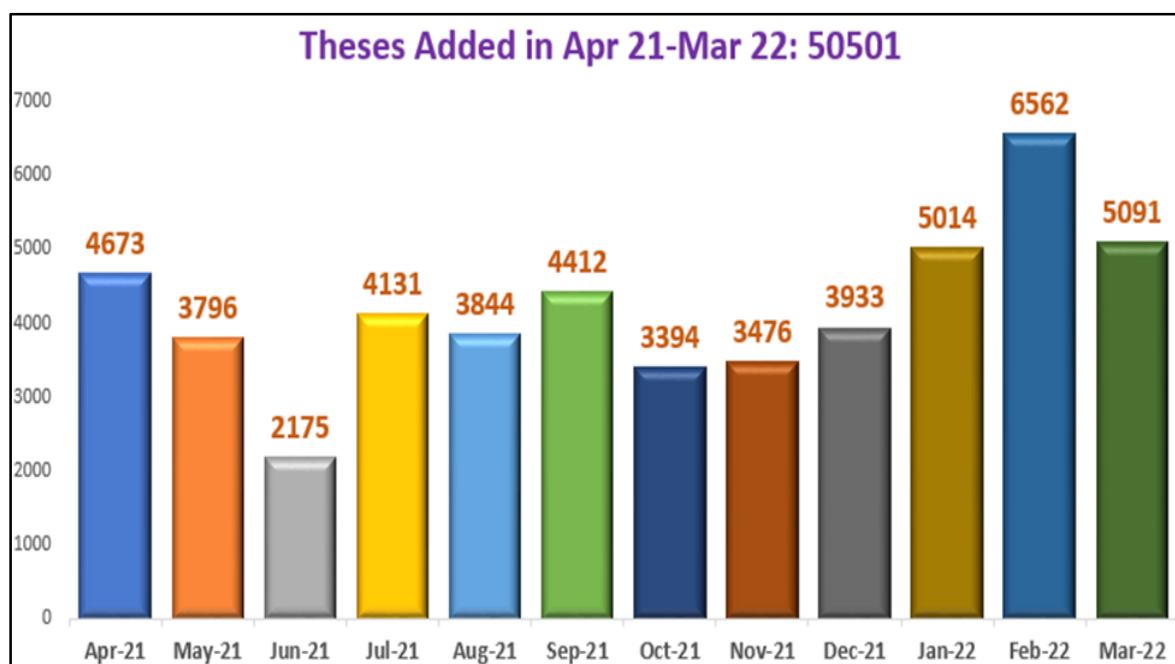


Fig. 26: Month-wise Theses Submissions into Shodhganga during April 2021-March 2022

4.1.3. Usage Statistics of Theses from Shodhganga

Usage of theses hosted in the Shodhganga repository by the academic community across the world is monitored by the Centre to measure its usage as well as for load balancing of the server. General statistics of Shodhganga including month-wise page views, theses views, department views, university views and website views are shown below in Table 9. The usage has considerably increased with the hosting of the repository on robust infrastructure. The yearly usage summary for Shodhganga for FY 2021-22 is given in Figure 27.

Views in Lakhs	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Total
Page Views	125.16	125.2	125.29	127.64	119.42	114.81	111.79	95.5	118.34	141.22	131.47	112.1	1447.94
Theses Views	38.8	55.25	40.19	43.72	37.94	43.97	36.3	36.98	37.13	37.97	46.91	30.23	485.39
Dept. Views	7.39	8.26	8.34	9.81	8.99	9.21	8.06	7.17	7.81	8.64	9.06	6.52	99.26
Univ. Views	2.73	2.93	3.16	3.75	3.61	4.09	3.37	2.93	3.3	3.43	3.45	2.91	39.66
Searches	9.1	11.15	15.38	13.91	13.96	14.65	12.78	11.6	11.15	16.93	18.68	16.49	165.78

Table 9: Month-wise Usage Statistics of Shodhganga generated by DSpace

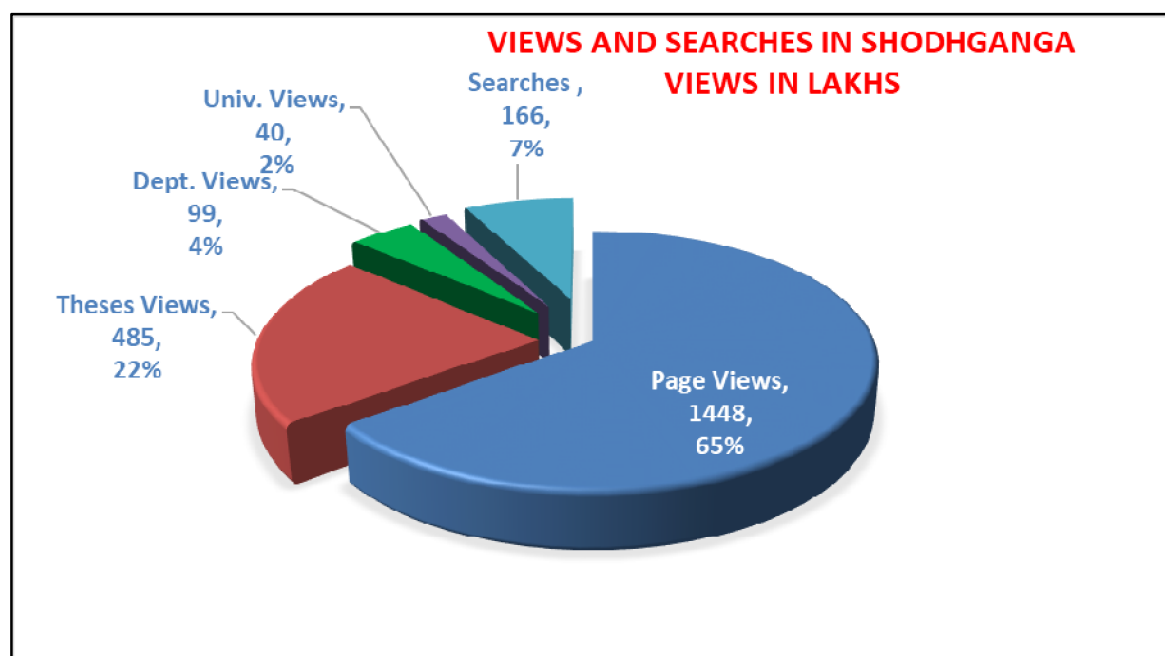


Fig. 27: Views and Searches in Shodhganga for FY 2021-22

4.1.3.1. Top 10 Theses Viewed Highest Number of Times in Shodhganga

The Top 10 theses that were viewed the highest number of times as on 31st March 2022 are given below in Table 10:

Sl. No.	Title and Its Unique URL	No. of Views
1	Trace based comparison of mobility models for routing in Manet (10603/30248) (http://shodhganga.inflibnet.ac.in/handle/10603/30248)	86,274
2	A study of Karmavipaka Samhita (http://shodhganga.inflibnet.ac.in/handle/10603/78407)	24542
3	Humour in Malayalam short stories ഹാസ്യം മലയാള ചെറുകഥയില് (http://shodhganga.inflibnet.ac.in/handle/10603/7650)	24009
4	Dissertation (10603/157251)	22461
5	Multiple query processing using soft computing tools (http://shodhganga.inflibnet.ac.in/handle/10603/75389)	21978
6	Students attitude towards entrepreneurship a study of MBA students of management institutes in Pune district (http://shodhganga.inflibnet.ac.in/handle/10603/95837)	21644
7	Gujarati rudhiprayog :prastavna ane sabdkosh (ગુજરાતી રૂઢીપ્રયોગ : પ્રસ્તાવના અને શબ્દકોશ) (10603/49648) (http://shodhganga.inflibnet.ac.in/handle/10603/49648)	21342
8	Telugu navala sahithyamulu chitanya sravanti (http://shodhganga.inflibnet.ac.in/handle/10603/63376)	21324
9	Women freedom fighters in tamilnadu (http://shodhganga.inflibnet.ac.in/handle/10603/14211)	20147
10	A Project Report On Hotel Management System (http://shodhganga.inflibnet.ac.in/handle/10603/98932)	19587

Table 10: Top 10 Theses Viewed in Shodhganga

4.1.2.2 Views and Searches in Shodhganga

The visits/hits on Shodhganga for views and searches on an average of 3 lakhs pages viewed per day during the period as depicted in Table 11 and Figure 28.

Month	Shodhganga Page Views Average
April 2021	302,731
May 2021	306,027

June 2021	347,316
July 2021	371,132
Aug 2021	345,811
September 2021	367,095
October 2021	304,410
November 2021	284,440
December 2021	362,551
January 2022	403,719
February 2022	427,720
March 2022	454,681
Average	356,469

Table 11: Page Views and User Visits

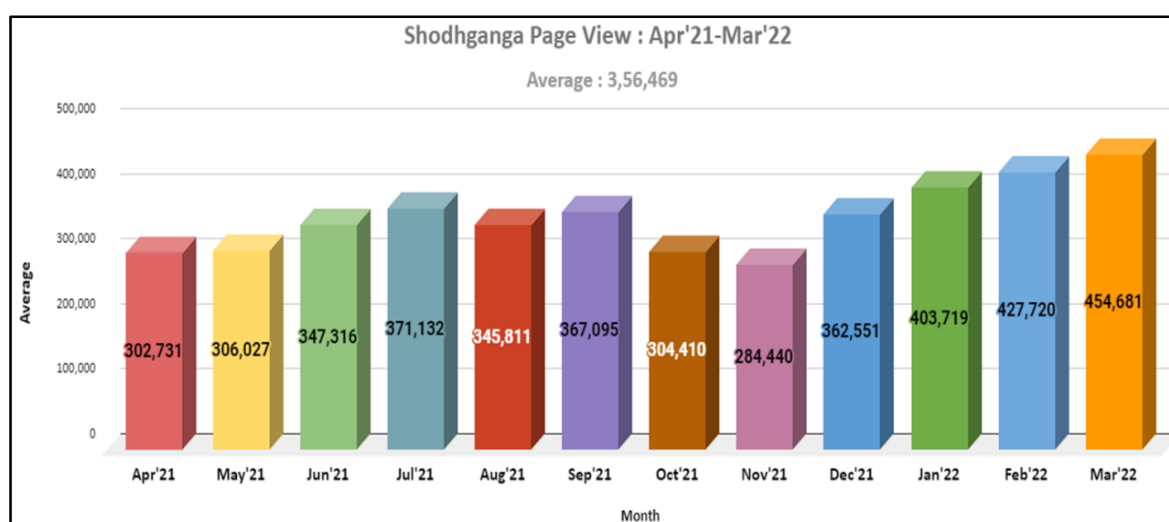


Fig. 28: Page Views and User Visits

4.2. Shodhgangotri: Repository of Indian Research in Progress

Initiated in 2013, Shodhgangotri is a repository of Indian Research in Progress that hosts Synopses/Research Proposals for PhD programmes with MRPs/PDFs/ Emeritus Fellowship. Under this initiative, research scholars/research supervisors in universities could deposit an electronic version of the approved synopsis submitted by research scholars to the universities for registering themselves under the PhD programme with MRPs/PDFs/ Emeritus Fellowship. Synopses in Shodhgangotri would later be mapped to full-text thesis in Shodhganga. As such, once the full-text thesis is submitted for a synopsis, a link from the synopsis in Shodhgangotri to the full-text theses in Shodhganga will be provided. During the reported period, a total of 115 universities have contributed their synopses for PDFs, MRPs & Emeritus fellowships into Shodhgangotri. The total number of synopses submitted into the repository grew to 8571 contributed by 115 institutions.

From 2019-2020 onwards Minor/Major Research Projects (MRPs) are also available in Shodhgangotri. During the period 2021-22, 19 MRPs were added in Shodhgangotri. Figure 29 depicts the website of Shodhgangotri: Repository of Indian Research in Progress which is available online at <http://shodhgangotri.inflibnet.ac.in/>.



Fig. 29: Website of Shodhgangotri: Repository of Indian Research in Progress

4.3. ShodhShuddhi: Plagiarism Detection Software 'OURIGINAL' (formerly URKUND)

The Ministry of Education, Govt. of India through its initiative 'ShodhShuddhi' provides access to Plagiarism Detection Software (URKUND now OURIGINAL) to all universities including Central, State, Deemed and Private as well as Centrally Funded Technical Institutions (CFTIs) in India through central funding to enhance Academic Integrity in Academic Institutions and to curb plagiarism w.e.f. 1st September 2019. This program is being executed by the INFLIBNET Centre, Gandhinagar. The Plagiarism Detection Software has been selected based on the Global Tender Process. Access to this online software system is based on the User ID and Password. The software has been implemented in all identified 1060 Universities/Institutions by creating a User ID and Password for each University Coordinator (UC) with admin rights. The University/Institutions Coordinators are responsible for creating login credentials for their faculty, Research Scholars of their respective Universities/Institutions.

As on 31st March 2022, overall a total of 19,88,174 documents (as per PDS Portal) have been submitted & scanned for checking Plagiarism by 1,27,777 users from 817 Universities Universities/institutions since its inception on 1st September 2019 by PDS. A total of 8,73,905

documents were submitted & scanned for checking plagiarism during the reported period. The rest of the Universities are either using the other software or research programmes have not yet started. The status of PDS implementation is given below in Table 12. The Number of Documents Submitted for Plagiarism Check in PDS during the period under report in Table 13 and the Status of PDS under ShodhShuddhi is given below in Table 14:

Total Member Institutions	1061
Total Users	1,27,777
Total Documents Submitted (as per PDS Portal)	19,88,174
Documents Submitted in March 2022 (1 Doc. = 20-A4 Pages)	66,167

Table 12: The Current Status of PDS implementation

Month (April 2021- March 2022)	No. of Documents Submitted
2021-April	59446
2021-May	56549
2021-June	80346
2021-July	96981
2021-August	82388
2021-September	76335
2021-October	72447
2021-November	62960
2021-December	96505
2022-January	63190
2022-February	60591
2022-March	66167
Total	873905
Average	72825.42

Table 13: Number of Documents Submitted for Plagiarism Check in PDS

University Type	No. of Universities	No. of Documents submitted	No. of Users (Receivers)
Central Open University	1	8885	629
Central University	51	304395	9846
Deemed University-Government	34	27921	5025
Deemed University-Government Aided	10	30491	1550
Deemed University-Private	81	160523	15846
Institute of National Importance (CFTI)	144	86538	16586

Institute under State Legislature Act	5	661	103
IUCs of UGC	8	6166	293
State Open University	16	10919	574
State Private Open University	1	0	0
State Private University	336	365745	27436
State Public University	373	985930	49889
Total	1060	1988174	127777

Table 14: Status of PDS under ShodhShuddhi as on 31st March 2022

4.4. IR@INFLIBNET (<https://ir.inflibnet.ac.in/>)

The Centre has established an institutional repository called IR@INFLIBNET using DSpace, open-source software accessible at <http://ir.inflibnet.ac.in/>. The papers published in the proceedings of the CALIBER and PLANNER are uploaded into the repository. The Repository also includes course materials, newspaper clippings, etc. The repository has 1,859 full-text articles. Routine tasks like periodic statistics generation and maintenance of the website are performed. The details of usage statistics are given in below Table 15.

Usage Statistics Apr 2021 to March 2022	
Bitstream Views	8,74,233
Item Views	9,64,158
Collection Views	45,874
Community Views	16,595
Searches Performed	15,48,134

Table 15: Usage Statistics

4.5. Institutional Repositories Customizations, Support and Hosting Services

The INFLIBNET Centre is assisting institutions of higher learning in the process of creation and maintenance of institutional repositories. The Centre is using self-developed expertise in open-source software like DSpace, Linux, Perl, Java, Apache Tomcat, PostgreSQL, MySQL etc. Under this initiative, the Centre has installed, configured, customized and hosted institutional repositories for various institutions. During the year under report, the Centre has provided help and support to the institutes given below in Table 16.

Sl. No.	Name of Institute	Services Provided
1	Birla Vishvakarma Mahavidyalaya, Vallabh Vidyanagar	DSpace Installation, Customization

2	Mahapurusha Srimanta Sankaradeva Viswavidyalaya, Nagaon	DSpace Installation, Customization, Hosting, Maintenance, Routine trouble-shooting
3	Shivaji University, Kolhapur	Maintenance Service (Renewed), Backup, Statistics generation, Log maintenance, Routine trouble-shooting
4	ARAI, Pune	Maintenance Service (Renewed), Backup, Statistics generation, Log maintenance, Routine trouble-shooting
5	Nirma University, Ahmedabad	Maintenance Service (Renewed), Backup, Statistics generation, Log maintenance, Routine trouble-shooting
6	Gujarat University, Ahmedabad	Hosting Service (Renewed), Routine trouble-shooting
7	Krishna Kanta Handiqui State Open University, Guwahati	Hosting Service (Renewed)
8	Mizoram University, Aizawl, Mizoram	Hosting Service (Renewed)
9	Gulbarga University, Gulbarga, Karnataka	Hosting Service (Renewed)
10	Shree Somnath Sanskrit University, Veraval	Hosting Service (Renewed)
11	Rajiv Gandhi University, Arunachal Pradesh	Hosting Service (Renewed)

Table 16: Institutions and DSpace Customization Services Provided by the INFLIBNET Centre

The Centre has provided hosting services to host INFED Identity Provider to the below Institutes as given below in Table 17.

Sl. No.	Name of Institute	Services Provided
1	Dr Hari Singh Gour Vishwavidyalaya, Madhya Pradesh	Hosting Services
2	Central University of Tamil Nadu, Tamil Nadu	Hosting Services
3	Gulbarga University, Gulbarga, Karnataka	Hosting Services (Renewed)
4	Nagaland University, Nagaland	Hosting Services (Renewed)
5	Central University of Jammu, Jammu and Kashmir	Hosting Services (Renewed)
6	Manipur University, Manipur	Hosting Services (Renewed)

Table 17: Institutions & INFED Identity Provider Hosting Services Provided by the INFLIBNET Centre

Besides, the Centre also provides proactive help, and support to some of the institutions over the phone, email or via remote login to manage and maintain their repositories on their own.

This group is also responsible for supporting and maintaining the INFLIBNET Centre's Institutional Repositories as well as other open access initiatives like Shodhganga and Shodhgangotri. The other regular and routine tasks performed are, index generation, periodic statistics generation, log maintenance, database backup and syncing data with a backup site at a defined frequency, database restore and indexing on mirror site, updating of Shodhganga, Shodhgangotri main website when required, metadata-export, fetching the list of duplicate records etc. The Centre has also prepared material related to Institutional Repository to help Library Professionals to establish the IR on their own. The Centre has also explored some of the new features of DSpace.

4.6. InfoPort: A Subject Gateway to Indian Scholarly Internet Resources

INFOPORT: INFLIBNET Subject Gateway for Indian Electronic Resources is designed to facilitate registering an Internet resource into the portal and extending its access to users. It is accessible online at <http://infoport.inflibnet.ac.in/>. INFOPORT supports browsing of Internet resources by Dewey Decimal Classification (DDC) Scheme. The main functional parts of INFOPORT are:

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

During the year under report, several features and functionalities of the subject gateway were enhanced based on feedback from users and additional Internet resources were added to the portal. The interface is populated with more than 1,740 e-resources.

4.7. ICSSR Data Service: Indian Social Science Data Repository

The INFLIBNET Centre was given a project for setting up a Data Repository for Social Science by the Indian Council of Social Science Research, New Delhi. ICSSR Data Service was set up using NADA (National Data Archive) - open-source data repository software developed by IHSN (International Household Survey Network). NADA uses the Data Documentation Initiative (DDI) metadata standard for describing datasets. NADA facilitates importing of existing datasets in DDI format. Figure 30 depicts the website of ICSSR Data Service.



Fig. 30: ICSSR Data Service's Website

Unit level data for each dataset have been converted to SPSS format (*.sav), STATA format (*.dta) and Tab Separated Value format (*.dat) and uploaded with the original datasets on the portal. These datasets have been categorised, described and documented according to DDI Standards. Registered users can download any dataset and do further analysis as per their requirements.

During the period under the report, handled users' queries and resolved the issues they were facing. User activation was being handled by the Centre as depicted in Table 18.

No. of Datasets	140 (93 NSS, 44 ASI, 1 Time use Survey, 2 Economic Census)
Total Registered Users	5020
Total Number of Downloads	50,57,166
Total Number of Views	3,34,07,827

Table 18: Queries Handled by the INFLIBNET Centre

4.7.1. ICSSR Data Analytic Tool

The Centre has developed an "ICSSR Data Analytic Tool" that facilitates users to explore unit-level data available in datasets online. The Beta version of the tool is available at <http://www.icssrdataservice.in/shiny/analytictool/> as shown in Figure 31. This tool is developed using the "R" language to facilitate advanced analysis and visualization of datasets. Various operations (like maintaining the uniform key variable name, and removing duplicate fields) were performed on each block of the dataset for making the ICSSR Data Analytic Tool functional. Users can perform

several analytical operations by using this tool such as univariate analysis, data transformation, cross-tabulation and pivot analysis. Users can visualize the resultant data using various charts like histograms, bar plots, stacked charts, column charts, heat maps, etc. Apart from this, the user can generate a map of state-wise data derived through analysis. During the period under the report, 4 datasets were cleaned and uploaded in the Data Analytic Tool.

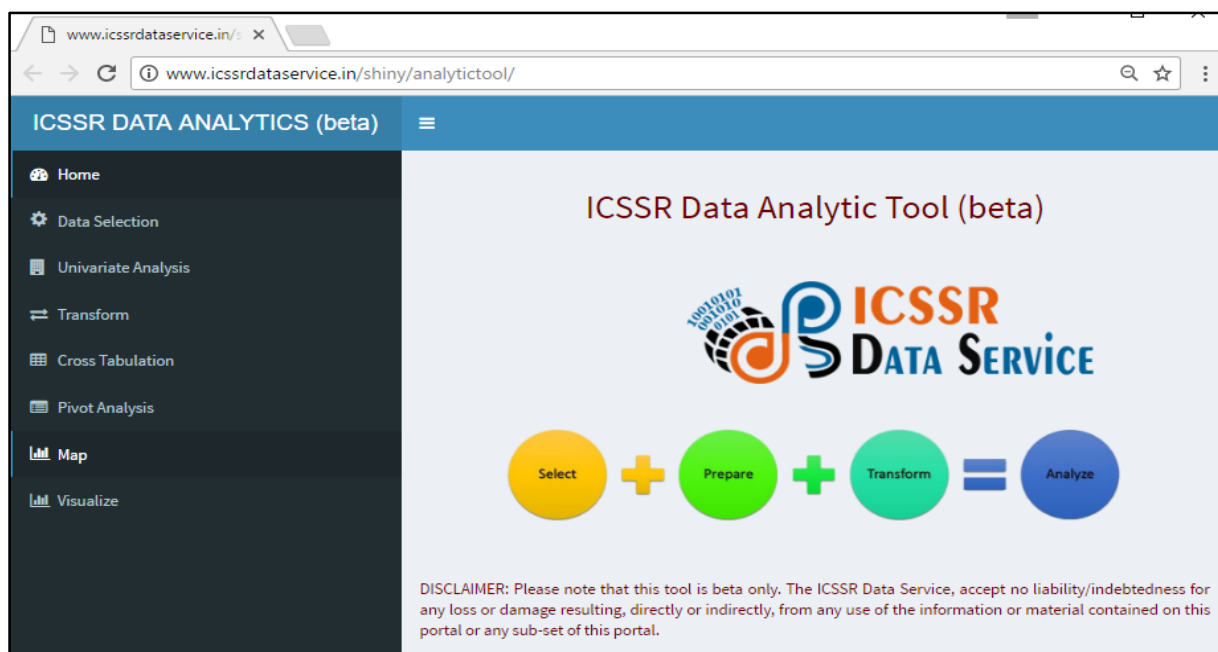


Fig. 31: ICSSR Data Analytic Tool

4.8. National Research Data Repository (NRDR)

The National Research Data Repository is envisaged to build up a Research Data Repository with the research datasets generated by the academic and research institutions from across India. The research data generated by the faculty and research scholars would be considered for depositing into the NRDR. The National Education Policy 2020 (Point No. 24.4(C)) encourages online education and emphasizes the creation of digital repositories. The Centre has developed a pilot instance of NRDR and it will be made available to the academic community as soon as it is officially launched.

4.9. Shodh-Chakra (Beta Version)

Shodh-Chakra is a unique initiative of Information and Library Network (INFLIBNET) Centre, Gandhinagar under the guidance of the University Grants Commission (UGC), New Delhi to help the academic community during their research life cycle. Shodh-Chakra will provide a unique space to the researcher, guide/supervisor and university to manage the research lifecycle of a research

scholar online. It will work as a digital workspace wherein researchers can collect, store, organize and cite their research work. Shodh-Chakra would help researchers to create their profiles and manage their preferences. The process of using the portal starts with signing an MoU between the University and INFLIBNET Centre. The university/institute has to provide valid information about the researcher and supervisor. Further, a researcher can log in to the system and avail the features of Shodh-Chakra. The system will generate login credentials for all the researchers, supervisors and universities. Figure 32 depicts Home Page with the Login Interface of Shodh-Chakra.



Fig. 32: Home Page with the Login Interface of Shodh-Chakra

In Shodh-Chakra, Research Scholars, Guides/Supervisors, and Universities are the stakeholders. The system has been designed keeping a view of the following key benefits specific to each stakeholder:

Researchers:

- Profile Management
- Assistance for Literature Work
- Knowledge Resources
- Resource Aggregation
- Publications (Workshops & Conferences)
- Reference Management
- Interaction with Guide
- Thesis Submission

Guides/Supervisors

- Dashboard
- Profile Management
- Work Progress Tracking
- Interaction with Researchers
- Knowledge Resources

Universities

- Dashboard
- Profile Management (Researcher & Guide)
- Communication / Intimation Module among Researchers, Guides and University
- Work Progress View
- Report Generation

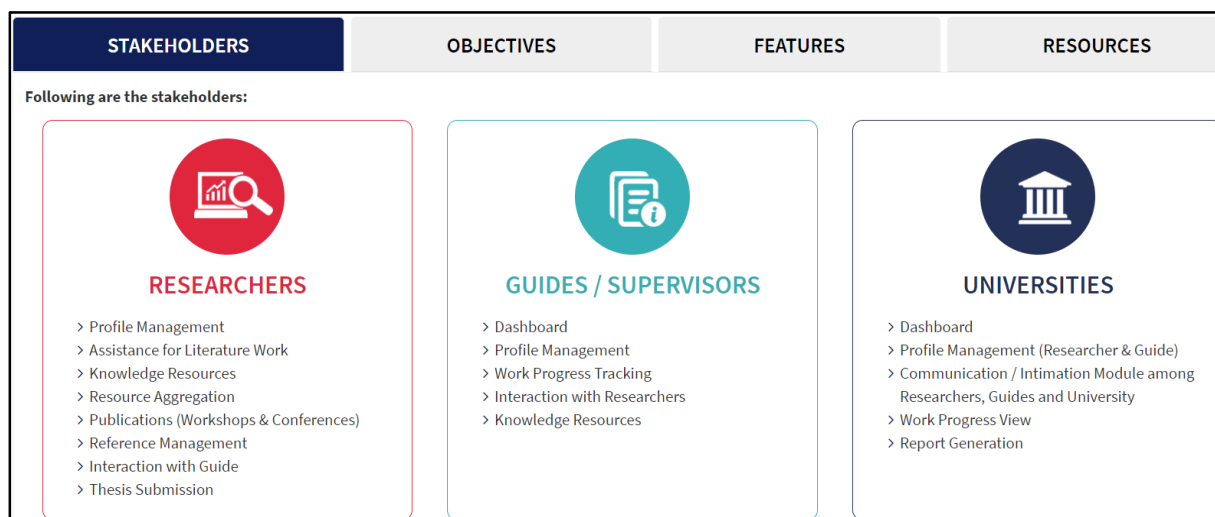


Fig. 33: Objectives of Shodh-Chakra

Following are key objectives behind the development of Shodh-Chakra:

- to provide consistent support to the researchers;
- to provide a single point of access to view the research activities of all research scholars;
- to understand the research trends across the universities;
- to provide an interactive platform between guide and researcher;
- to provide a single point of access to all the research needs of higher education institutions in India;
- to provide a dedicated platform for searching, storing, organising and managing literature;
- to provide research support to the academic community by amplifying the latest tools for conducting research;

-
- to empower and educate research scholars in conducting their research work;
 - to supply bibliographic information of millions of scholarly communications through a single platform; and
 - to provide a single portal for managing researcher, guide, and university's research activities.

4.9.1. Features and Functions of Shodh-Chakra

Following are the major features and functions of Shodh-Chakra:

- The Shodh-Chakra creates and maintains the research profile of scholar(s) & guide(s);
- It provides access to more than three lakhs of full-text theses directly from Shodhganga;
- It helps researcher(s) to find out relevant literature from millions of scholarly articles from Google Scholar, IRINS, Crossref and other databases;
- Store, collect, organize and manage scholarly resources in a personalized resource space known as My Library;
- It stores information on Scholarship/Fellowship received by researchers and other administrative details of the researchers;
- Single search box to find out resources using keywords from major metadata fields;
- The Shodh-Chakra provides access to pre-populated Knowledge Resources that are useful sources of information for a researcher before beginning the research work. (Shodhganga, MOOCs Module on Research Ethics, etc.);
- It gathers information on upcoming seminars/workshops and conferences in all the fields across the country on the participatory approach;
- It has a unique feature to mark the favourite resource so that it can be referred to in future while preparing the manuscript;
- Reference management tool (Zotero) is integrated with the portal that will help researchers to manage resources/references; and
- It also facilitates researchers to annotate the resources.

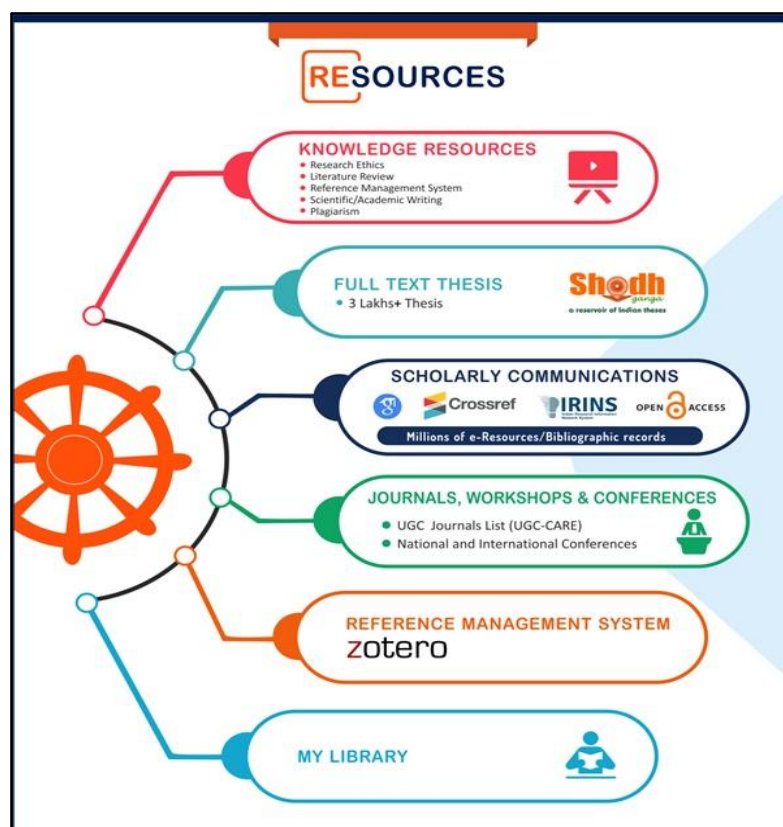


Fig.34: Resources available for Academicians in Shodh-Chakra

5. Library Consortium and its By-products: e-ShodhSindhu, N-LIST, InfiStat, J Gate Plus and INFED

The Centre is responsible for executing consortia, namely e-ShodhSindhu including its college component called “National Library and Information Services infrastructure for Scholarly Contents (N-LIST)” with an aim to extend access to e-resources to CFTIs, universities and colleges in India. Two separate entities within the umbrella of e-ShodhSindhu were maintained not only to cater to the diverse needs of two sets of institutions, namely CFTIs & universities and colleges, but also to satisfy the requirements of different economic models of these two consortia.

For the year 2022, the consortium subscribed to the existing 16 resources available through central funding for eligible institutions during 2021. The total number of resources to be made available through central funding includes 7096+ journals and four databases for Universities/CFTIs. e-ShodhSindhu continued to provide current as well as archival access to these peer-reviewed journals and bibliographic/citation databases in different disciplines from several publishers and aggregators to its core member institutions including centrally funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act.

5.1.1. Governance

The Ministry of Education (MoE), Government of India has constituted three national committees consisting of Ministry of Education officials, representatives of member institutions and experts in the library and information science. The composition of these three committees and their role and responsibilities are given below.

5.1.2. National Advisory Committee

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

5.1.3. National Steering Committee

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

5.1.4. Joint Negotiation Committee

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

5.2. Member Institutions

Access to e-resources is being provided to different categories of institutions through central funding as mentioned below in Table 19, and the list of colleges is available at <http://nlist.inflibnet.ac.in/collegelist.pdf>.

Sl. No.	Category	No. of Institutions
1	12 (B) / 2 (f) State Universities	137
2	Central Universities	41
3	Deemed Universities (UGC funded)	21
4	IUCs of UGC	6

5	National Law Schools/Universities	12
	Universities	217
6	IITs & IISc	24
7	NITs, SLIET & NERIST	32
8	IIMs	20
9	IISERs	7
10	SPAs	3
11	IIITs, IIST, NITIE, NIFFT and NITTTR	12
	CFTIs (Total CFTIs)	98
	Total	315

Table 19: Categories of Institutions Getting Access to e-Resources through Central Funding

In addition, access to three e-resources (ASCE, ASME, Bentham Pharmacy) to 75 institutions including Government engineering colleges and universities is provided with funding from the AICTE. The Consortium also provides access to 6,150 e-journals and 7,99,536 e-books to 3,414 colleges under the NLIST programme, the college component of e-ShodhSindhu described at 5.9.

Other Higher Education Institutions can join the Consortium through an online portal available on the Consortium website and subscribe to e-resources required by them at the rates negotiated by the Consortium.

5.3. Current Status: Services and Activities

The INFLIBNET Centre acts as a nodal agency for the implementation, monitoring and execution of e-ShodhSindhu through the Committees mentioned above. It coordinates all activities concerned like negotiation, renewal of the subscription to e-resources and subsequent troubleshooting on behalf of the member institutions. e-ShodhSindhu also promotes cooperation amongst member institutions and facilitates better terms of reference for the use and preservation of subscribed electronic resources.

5.3.1. Coordination, Negotiation and Licensing of e-Resources

The consortium coordinates the meeting of various committees of the consortium and negotiates rates of subscription to e-resources and terms and conditions of access to e-resources. The INFLIBNET Centre has also developed a Model License Agreement for the subscription of e-resources. The INFLIBNET Centre also signs a license agreement with the publishers on behalf of the member institutions of e-ShodhSindhu.

5.3.2. Mode of Access to e-Resources

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

5.3.3. Maintain and Update Consortium Website

The INFLIBNET Centre maintains a comprehensive website for e-ShodhSindhu programme to provide detailed information about subscribed e-resources and member institutions. Tutorials and promotion materials have been developed for imparting training and technical support to member institutions. e-ShodhSindhu website provides options for searching and browsing subscribed journals, searching for member institutions and viewing the e-resources subscribed for them by the consortium. The member institutions can also download a list of journals available under various e-resources in .xls format, which in turn, can be used for updating their local library systems. Figure 35 depicts the home page of e-ShodhSindhu website.

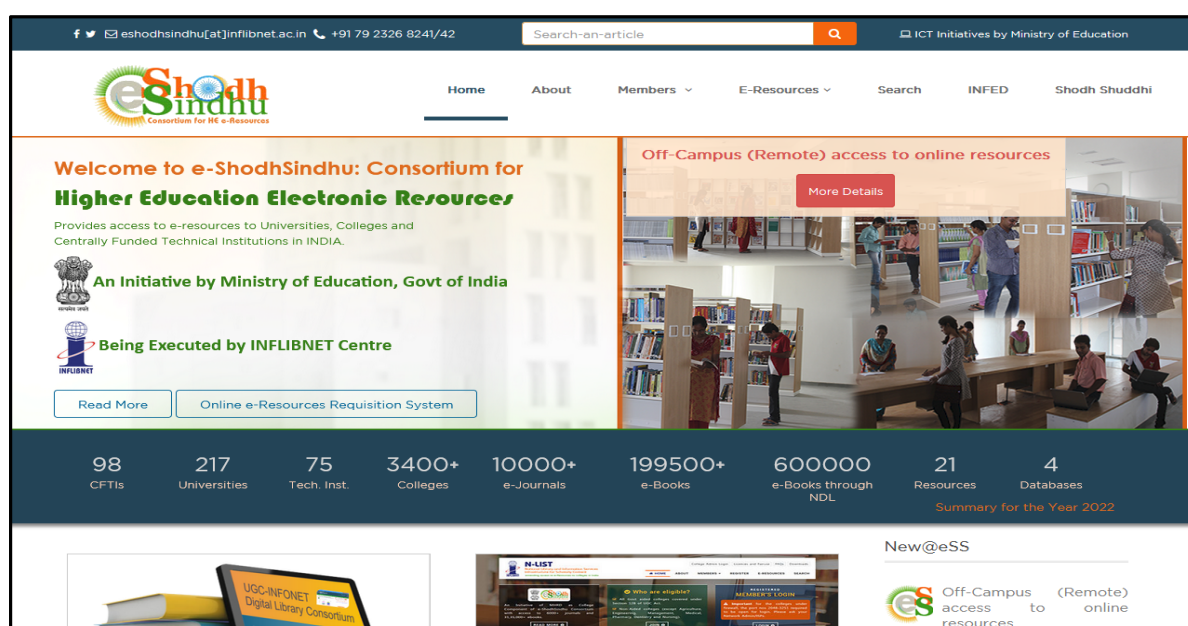


Fig. 35: e-ShodhSindhu Website

5.3.4. InfiStats: Monitoring of Usage of e-Resources

The Centre has developed a software called InfiStats, for monitoring the usage statistics of various e-resources made accessible to the member institutions. InfiStats uses the "Standardized Usage Statistics Harvesting Initiative (SUSHI)" Protocol (ANSI/NISO Standard No. Z39.93-2007) that defines an automated request and response model for harvesting usage data for electronic resources using a Web services framework. InfiStats portal imports the usage data from the publisher's website automatically and stores it in a database on the InfiStats platform. InfiStats interface provides title-level COUNTER-compliant reports to member institutions. The member institutions can also log on to this portal for monitoring the usage of their respective e-resources. Figure 36 depicts the home page of InfiStats website. The Consortium is maintaining only COUNTER R5 usage for member institutions from January 2020 onwards.

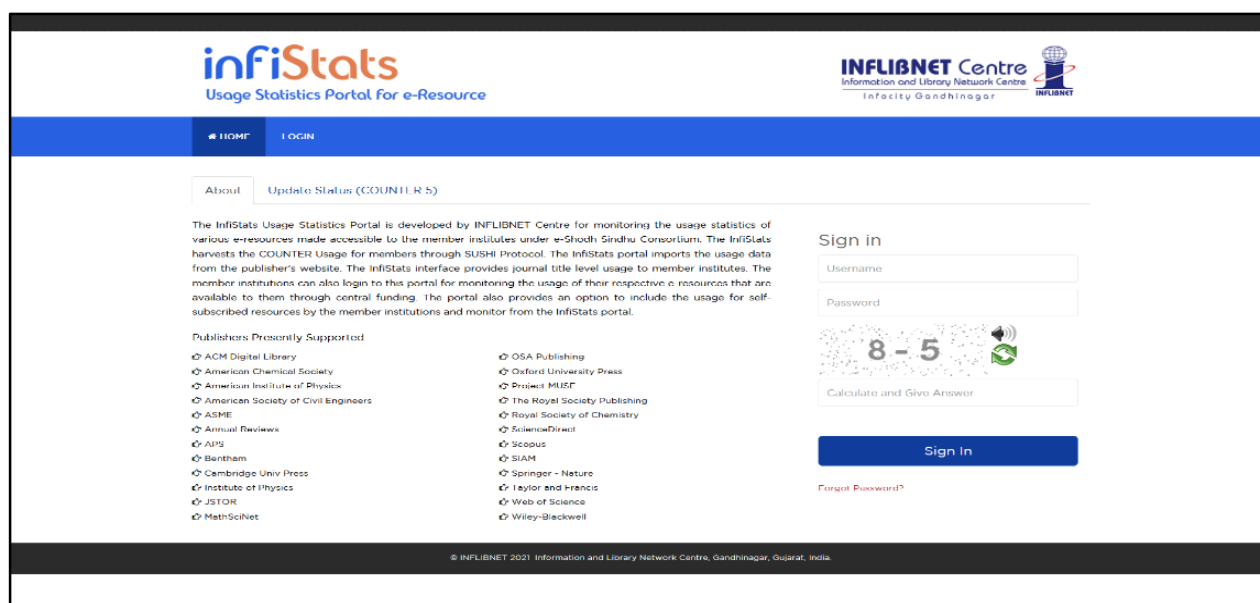


Fig. 36: InfiStats Website

5.3.5. Off-Campus Access to e-Resources

While IP-based access is the most convenient, safe and hassle-free authentication mechanism for publishers as well as for subscribing institutions, it has its limitations. One of the most serious limitations of IP-filtered access to e-resources is that the users can access e-resources only when they are on the Institute campus. Ideally, an authorized user should be able to access e-resources irrespective of their physical location at any time as long as he has access to the Internet. To overcome this limitation, the INFLIBNET Access Management Federation (INFED) was set up which uses Shibboleth, a standard-based open source software, for authenticating authorized users from

colleges and universities and providing them seamless access to e-resources from anywhere, anytime. More details about INFED is available in 5.10.

5.4. Electronic Resources

The Consortium has negotiated rates of subscription for several electronic resources covering all major subject disciplines being taught in CFTIs, universities and colleges. It includes a wide variety of materials including e-journals, bibliographic databases, factual databases, state-of-the-art reviews published by scholarly societies, university presses, institutions, commercial publishers and aggregators. While 16 e-resources are subscribed with central funding, the remaining e-resources can be subscribed by member institutions with self-funding. The member institutions are provided differential access to these 16 e-resources based on their e-resource requirements registered on the Online e-Resource Requirement Portal developed for this purpose. Access to American Chemical Society journals is discontinued from the year 2022.

5.5. Major Achievements of e-ShodhSindhu

As on 31st March 2021, a total number of 3,414 member colleges are getting access to resources subscribed under N-LIST programme. The list of resources available to member institutions of e-ShodhSindhu is listed below in Table 20.

Sl.No.	Name of Resource	No. of Titles	Category of Institutions 2022
1	JSTOR	3000+	138 Univ. + 74 CFTIs + Colleges
2	EPW	1	145 Univ. + 57 CFTIs + Colleges
3	JGate Plus (JCCC)	DB	143 Univ. + 51 CFTIs
4	Oxford University Press	262	102 Univ. + 61 CFTIs + Colleges
5	ASME Journals Online	33	58 CFTIs
6	ASCE Journals Online	36	51 CFTIs
7	ACM Digital Library	154	63 CFTIs
8	AIP - eSS Collection	19	94 Univ. + 34 CFTIs + Colleges
9	APS - eSS Collection	17	89 Univ. + 39 CFTIs
10	ISID Database	DB	All
11	Web of Science/LA	DB	93 Univ. + 57 CFTIs
12	Annual Reviews	43	83 Univ. + 30 CFTIs + Colleges
13	Project Muse	731	74 Univ. + 27 CFTIs
14	MathSciNet	DB	54 Univ. + 38 CFTIs
15	Springer Link + Nature journal	1724	138 Univ. + 62 CFTIs
16	Taylor and Francis	1076	128 Univ. + 1 CFTI
17	Royal Society of Chemistry	23	Colleges

18	Institute of Physics	46	Colleges
19	H W Wilson	3,075	Colleges
20	eBrary e-Books	1.85 Lakhs	Colleges
21	Indian Journals.com	186	Colleges
22	WEL (For NDL)	6.00 lakhs	All
23	South Asia Archives		All

Table 20: e-Resources Made Accessible to Eligible Member Institutions

Univ: 12(B)/Central/Funded Deemed Universities, **Colleges:** Eligible NLIST Colleges

CFTIs: Centrally funded Technical Institutions (IISc, IITs, NITs, IIMs, IISERs, IIITs etc)

The Negotiation Committee of e-ShodhSindhu negotiated rates of subscription for 133 e-resources collections from 45 publishers/vendors and to get the lowest rates of subscription; the consortium renewed the 2022 subscription for existing resources for the existing number of institutions as subscribed in 2021.

5.6. Funds Released

The Consortium received Rs. 140.89 crores during FY 2021-22 for subscription to e-Resources for Universities/CFTIs, and colleges under N-LIST Programme.

5.7. Usage of e-Resources: Analysis

Most publishers maintain detailed usage statistics for resources made accessible to subscribing institutions. The publishers provide usernames and passwords to subscribing institutions for accessing the usage statistics for their resources for monitoring purposes. The Consortium analyses the usage using various parameters as mentioned below.

5.7.1. Research Output of Member Institutes Covered under e-ShodhSindhu

The success of a programme depends on the impact that it has on the extent and quality of research carried out in the institutions where access to e-resources is provided through e-ShodhSindhu Scheme. The Centre has measured the research output of 257 member institutes using the citation database Web of Science (WoS). A total of 96692 papers are published by 257 member institutes during CY 2021. Member category-wise distribution of papers published by member institutes is given below in Figure 37.

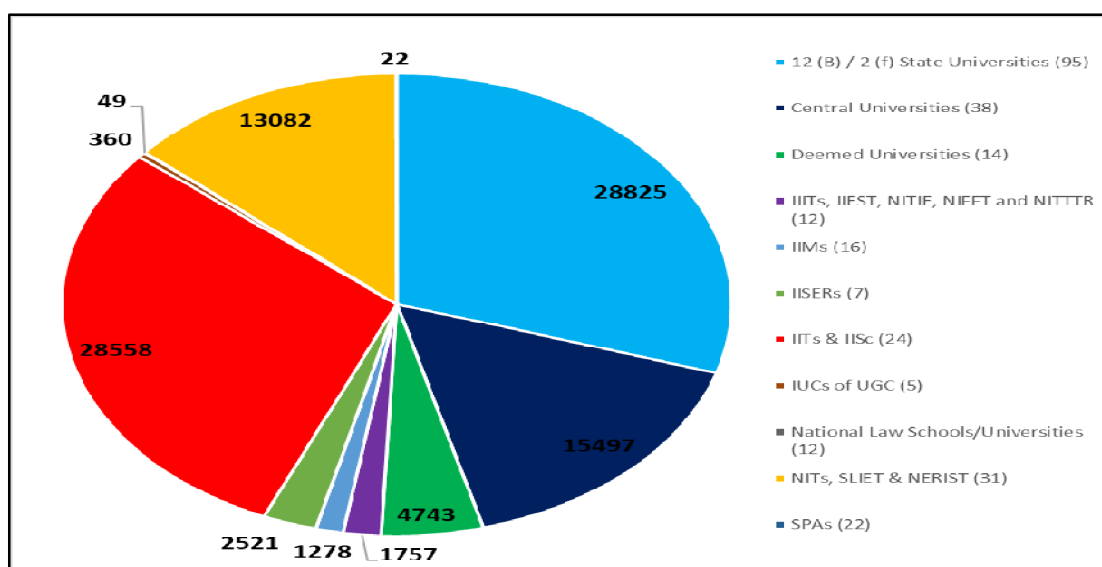


Fig. 37: Distribution of Papers Published by Member Institutes (Category-wise)

5.7.2. Correlation between Numbers of Downloads and Publications Pattern of Institutions

The correlation between the numbers of full-text article downloads and publication of member institutions of e-ShodhSindhu during the CY 2020 has been calculated. A total of 256 member institutes having access to full-text e-resources are considered for the analysis. The Pearson correlation coefficient for e-ShodhSindhu Consortium for 2021 is 0.86. This indicates that there is a positive correlation between these two variables.

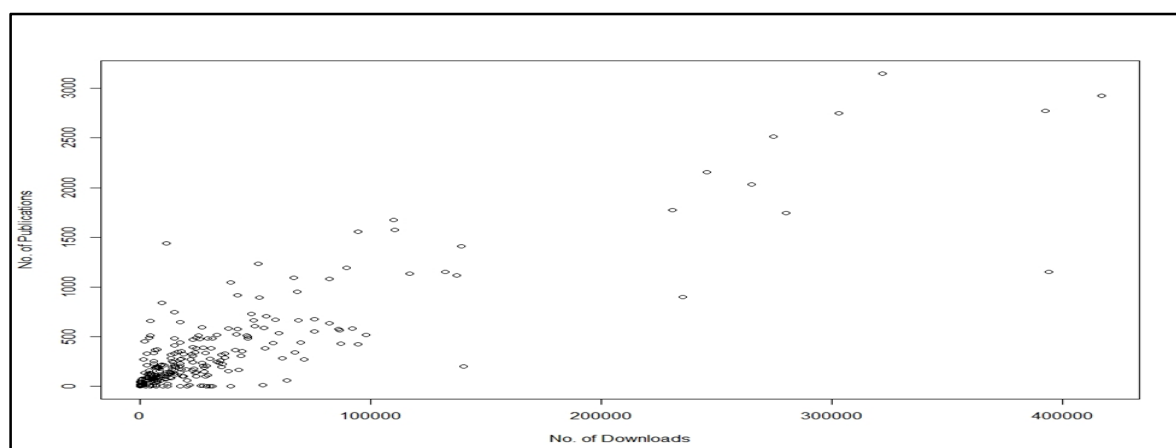


Fig. 38: Scatter Plot - Correlation between Numbers of Download & Publication

5.7.3. Average Cost of an Article

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

downloaded. Table 21 given below, provides the cost per download of an article. The cost per download is the lowest for JSTOR (Rs. 11.17) and the highest for Project Muse (Rs.774.17), whereas the Consortium average is Rs. 83.51. In the case of databases, the cost per search for MathSciNet is Rs. 18.75, for Web of Science Rs. 150.96 and the cost per hit for JGate is Rs. 21.11.

Sl. No.	Resource Name	No. of institutions subscribed	Downloads	Cost per download /search
1	ACM Digital Library	63	126007	₹ 280.00
2	American Chemical Society	109	814971	₹ 138.08
3	American Institute of Physics	128	644798	₹ 181.91
4	American Physical Society	128	628605	₹ 128.90
5	Annual Reviews	113	73079	₹ 412.98
6	ASCE Journals Online	51	146716	₹ 198.75
7	ASME Journals Online	58	101727	₹ 257.65
8	JSTOR	211	2463582	₹ 11.17
9	Oxford University Press	163	238493	₹ 332.84
10	Project Muse	101	71178	₹ 774.17
11	Springer Link + Nature	200	8112962	₹ 57.27
12	Taylor and Francis	129	363268	₹ 255.56
	Total For FT Resources		13785386	₹ 83.51
13	JGate Plus (JCCC)	194	945730	₹ 21.11
14	MathSciNet	92	1573058	₹ 18.75
15	Web of Science/LA	150	1037182	₹ 150.96

Table 21: Cost per Download for Full-Text e-Resources for the Year 2021

Note: Usage for ISID & EPW is not available and the cost per download is not computed. Usage statistics for JCCC is a proprietary format and not COUNTER complaints. Usage for all other resources is based on COUNTER 5 provided by the publishers.

5.8. Document Delivery through J-Gate Plus @e-ShodhSindhu

J-Gate Plus@e-ShodhSindhu is a virtual library of journal literature created as a customized e-journal articles access gateway and database solution for member institutions of e-ShodhSindhu. It provides article-level access to e-journals subscribed under the Consortium as well as e-journals subscribed by 25 university libraries designated as ILL Centres of the INFLIBNET Centre. Moreover, an increasing number of CFTIs are now contributing their journal subscription details to J-Gate Plus. It acts as a gateway to search 58,000+ journals including 29,200+ journals subscribed by the

Consortium as well as universities designated as ILL Centres. J-Gate Plus interface facilitates triggering of an email request for articles that are not accessible online and are available only in universities designated as ILL Centres. During the period under report, 46 ILL requests were received from member universities to the INFLIBNET Centre out of which 36 requests were fulfilled. Details of the numbers of article requests received from member universities are given below in Table 22:

Sl. No	Requested By	DDR-DU	DDR-F	DDR-UF	Total
1	Mother Teresa Womens University	0	9	0	9
2	Kannur University	0	5	2	7
3	Central University of Jharkhand	0	5	0	5
4	Indira Gandhi National Open University	3	0	0	3
5	GITAM (Deemed to be University)	0	2	0	2
6	Sant Longowal Institute of Engineering & Technology	1	0	1	2
7	Central University of Haryana	0	1	0	1
8	Central University of Rajasthan	0	1	0	1
9	Chhatrapati Shahu Ji Maharaj Kanpur University	0	1	0	1
10	Dayalbagh Educational Institute	0	1	0	1
11	Dr. B.R. Ambedkar Memorial Library - Acharya Nagarjuna University	0	0	1	1
12	Indian Institute of Management - Calcutta	0	1	0	1
13	Indian Institute of Technology - Delhi	0	0	1	1
14	Indian Institute of Technology - Roorkee	0	1	0	1
15	Informatics Publishing Limited	0	0	1	1
16	Jiwaji University Gwalior	0	1	0	1
17	National Institute of Technology - Jamshedpur	0	1	0	1
18	Osmania University	0	1	0	1
19	Patna University	0	1	0	1
20	Rajiv Gandhi National University of Law Punjab	0	1	0	1
21	Ranchi University	0	1	0	1
22	The National Law School of India	0	1	0	1
23	University of Allahabad	0	1	0	1
24	Veer Surendra Sai University of Technology	0	1	0	1
	Total Requested	4	36	6	46

\$DDR-DU: Document Delivery Request-Delay, *DDR-F: Document Delivery Request-Fulfilled
+DDR-P: Document Delivery Request - Pending, #DDR-UF: Document Delivery Request-Unfulfilled

Table 22: Document Delivery Requests made by Different Universities

During the period under report, a total number of 408 requests were received by the 32 ILL Centres and by the INFLIBNET Centre from all the member universities, out of which 193 were fulfilled as per the details given below in Table 23.

Sl. No.	University Name	DDR -DU	DDR -F	DDR -P	DDR-UF	Total	% Fulfilled
1	Aligarh Muslim University	0	16	0	5	21	76.19
2	Andhra University	0	12	0	0	12	100
3	Annamalai University Library	0	38	0	7	45	84.44
4	Assam University	0	0	0	0	0	NA
5	Banaras Hindu University	0	1	1	2	4	25
6	Banasthali University	0	10	0	6	16	62.5
7	Bangalore University	0	0	1	0	1	0
8	Birla Institute of Technology and Science	0	0	3	0	3	0
9	Cochin University of Science and Technology	0	18	0	7	25	72
10	Indian Institute of Science	5	0	8	1	14	0
11	Indian Institute of Technology (IIT-BHU) Varanasi	0	2	0	0	2	100
12	Jadavpur University	0	0	76	0	76	0
13	Jawaharlal Nehru University	0	2	0	0	2	100
14	Kurukshetra University	0	0	0	0	0	NA
15	Mangalore University	0	0	14	0	14	0
16	North Eastern Hill University	0	0	1	0	1	0
17	Panjab University	2	11	0	2	15	73.33
18	Pondicherry University	0	0	0	2	2	0
19	Punjabi University	0	0	0	1	1	0
20	Pt. Ravishankar Maharaj Shukla University	0	0	0	0	0	NA
21	Rashtrasant Tukadoji Maharaj University	0	0	0	0	0	NA
22	Sardar Patel University	0	0	0	0	0	NA
23	Savitribai Phule Pune University	0	0	0	1	1	0
24	South Asian University	0	4	0	2	6	66.67
25	Tata Institute of Social Sciences	0	7	0	2	9	77.78
26	The Maharaja Sayajirao University of Baroda	0	2	0	1	3	66.67
27	University of Calcutta	0	1	0	37	38	2.63

28	University of Delhi	0	0	11	0	11	0
29	University of Hyderabad	1	33	0	6	40	82.5
30	University of Madras	0	0	0	0	0	NA
31	University of Pune	0	0	0	0	0	NA
32	University of Rajasthan	0	0	0	0	0	NA
33	INFLIBNET Centre	4	36	0	6	46	78.26
	Total Delivered	12	193	115	88	408	47.3

\$DDR-DU: Document Delivery Request-Delay, *DDR-F: Document Delivery Request-Fulfilled
+DDR-P: Document Delivery Request - Pending, #DDR-UF: Document Delivery Request-Unfulfilled

Table 23: Document Delivery Requests Received by 32 ILL Centres and INFLIBNET Centre

Figure 39 depicts the comparison between DDR-Fulfilled and the total number of DDR received by each ILL Centre.

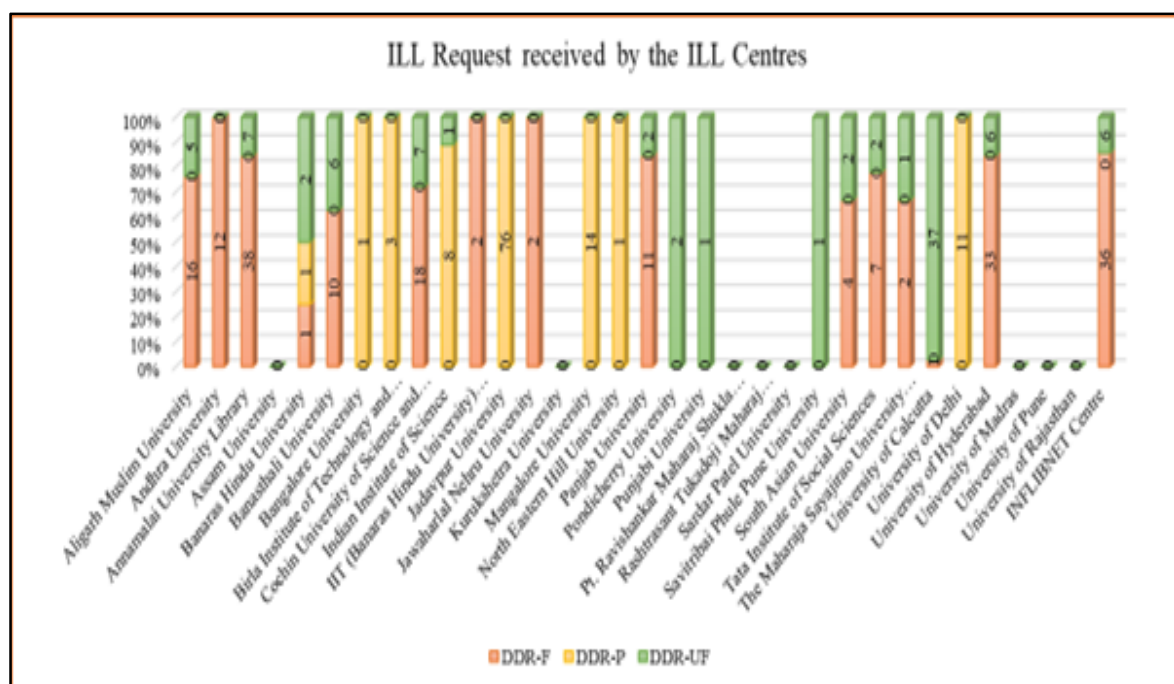


Fig. 39: Document Delivery Requests Received (DDR-R) Vs Full-filled (DDR-F) by 26 ILL Centres

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

The "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)", is part of e-Shodh Sindhu: Consortia for Higher Education E-Resources as a college component that provides access to 6,500+ e-journals and 7,99,536 e-books to all Govt.-aided as well as non-aided colleges through a proxy server installed at the INFLIBNET Centre. Electronic resources subscribed under N-LIST project cover 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.

5.9.1. Current Status

As on 31st March 2022, a total number of 3,414 member colleges are getting access to resources subscribed under N-LIST programme. Log-in IDs and passwords have been issued to more than 5.22 lakhs faculty members, students and researchers after obtaining the list of authorized users from these 3,414 registered colleges.

5.9.1.1. Number of Colleges

Figure 40 given below reflects the year-wise number of colleges that joined N-LIST Programme from the year 2010 to 2022. Due to changes in eligibility criteria of membership, there was a slight decrease in the total number of registered colleges after 2017.

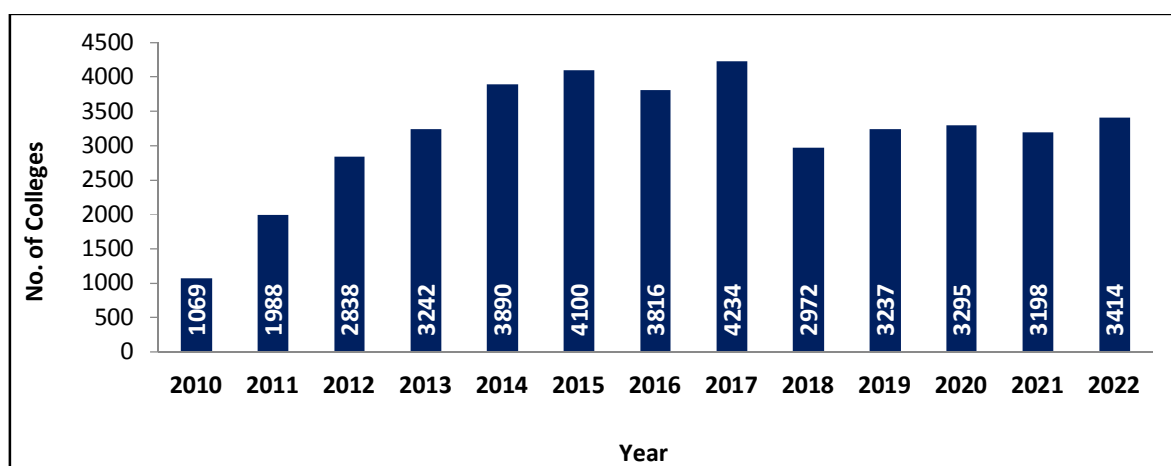


Fig. 40: Year-wise Registration of Colleges

5.9.2. Electronic Resources Subscribed under N-LIST Programme

5.9.2.1. Full-text Electronic Resources

Full-text electronic resources contain complete articles along with their bibliographic details. N-LIST programme subscribes to full-text e-resources from scholarly societies, commercial publishers and aggregators like the American Institute of Physics, American Physical Society, Oxford University Press, Royal Society of Chemistry, H W Wilson, etc. All the names of the full-text e-resources subscribed under N-LIST programme are provided in below Table 24.

Sl. No.	E-resources	Publishing Country	No. of Journals	Backfiles from
1	American Institute of Physics	USA	18	Ten yrs.
2	Annual Reviews	USA	33	Ten yrs.
3	Economic and Political Weekly (EPW)	India	1	1966+
4	Indian Journals	India	186	2007+
5	Institute of Physics	UK	46	Vol. 1+
6	JSTOR	USA	2500	Vol. 1+
7	Oxford University Press	UK	262	1996+
8	Royal Society of Chemistry	UK	29	Ten yrs.
9	H. W. Wilson	USA	3,075	1982+
	Total		6150	

Table 24: Full-text Electronic Resources

5.9.2.2. Electronic Books

Electronic books are either subscribed on an annual subscription basis as in the case of 'ebrary' or are purchased on a one-time payment and perpetual access basis as in the case of all remaining publishers listed below. The total number of electronic books accessible to colleges under N-LIST programme exceeds 1,99,536 as revealed below in Table 25.

Sl. No	E-book Name	Publishing Country	Purchased Books
1	ProQuest Academic Collection (formerly known as E-brary)	USA	1,85,227
2	Cambridge Books Online	UK	1,800
3	EBSCOhost-Net Library	USA	936
4	Hindustan Book Agency	India	65
5	Institute of SouthEast Asian Studies(ISEAS) Books	India	382
6	Oxford Scholarship Online	UK	1,402
7	Springer eBooks	Germany	2,300
8	Taylor & Francis eBooks	UK	1,800
9	Mylibrary-McGraw Hill	USA	1,124
10	Sage Publication eBooks	UK	1,000
11	Open Access (Net Library)		3,500
	Total	4,93,334	1,99,536

Table 25: Electronic Book

5.9.3. E-Resources Available through National Subscription

Access to the South Asia Archives (SAA) and World E-Book Library (WEL), subscribed by e-ShodhSindhu on behalf of the National Digital Library (NDL), are made available to member colleges of N-LIST Programme through a proxy server set up at the INFLIBNET Centre. The World e-Book Library includes 6,00,000 primary sources spanning the past 1,000 years of world history in more than 320 different languages. The South Asia Archive contains more than 4.5 million pages spanning the period of the 18th and mid-20th century from documents across the Indian subcontinent, including India, Pakistan, Burma, Afghanistan and Bangladesh.

Sl. No.	Name of Collection	No. of Titles
1	World eBook Library	6,00,000
2	South Asia Archive	4.5 million pages

Table 26: Electronic databases

5.9.4. Mode of Access

The INFLIBNET Centre has implemented EZ-Proxy from OCLC for authenticating registered individual users from colleges. Users can directly access and download articles from journals and chapters from books directly from the publisher's website once they are duly authenticated as authorized users through the authentication mechanism deployed at the INFLIBNET Centre. The Centre has also implemented Shibboleth-based authentication of authorised N-LIST users for off-campus access to American Institute of Physics, Annual Reviews, Institute of Physics, Royal Society of Chemistry, Springer eBooks, Cambridge eBooks, and Taylor & Francis.

5.9.5. Cost-effectiveness of N-LIST Project

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

5.9.6. Analysis of Usage

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

5.9.6.1. Publisher-wise Usage of E-journals

Figure 41, given below, shows the number of articles downloaded by the users from different publishers during the financial year 2021-2022. It can be observed that JSTOR is the highly used resource followed by Indian Journals and H W Wilson. The usage of EPW could not be analysed due to the lack of usage data from the publisher.

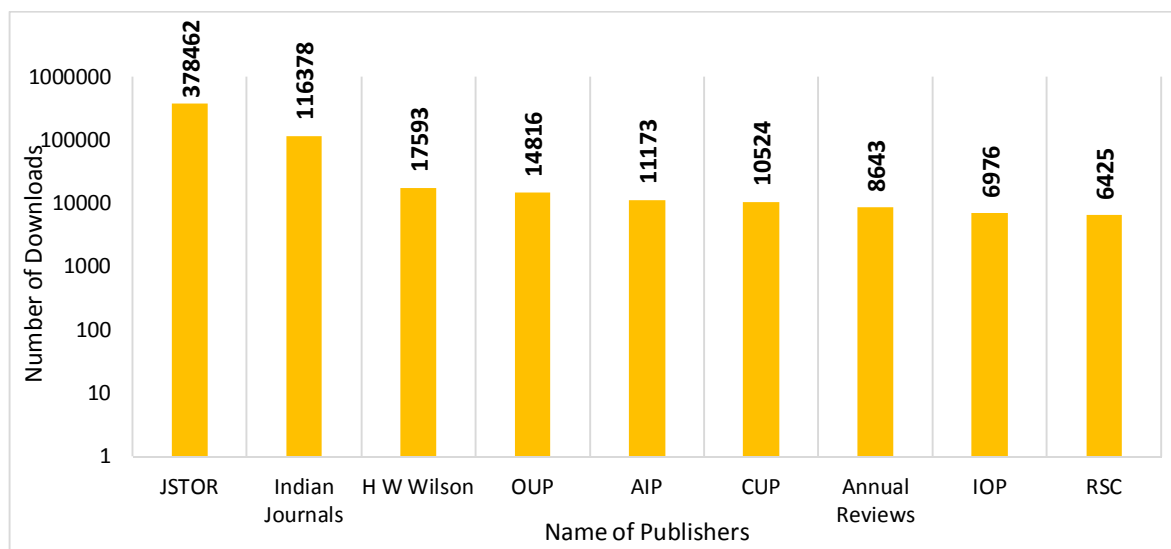


Fig.41: Publisher-wise Usage of E-Journals 2021-2022

5.9.6.2. Publisher-wise Usage of E-Books

Figure 42 given below, shows publisher-wise usage of e-books during the financial year 2021- 2022. It can be observed that Ebrary is the highly used resource followed by Springer and Sage e-books.

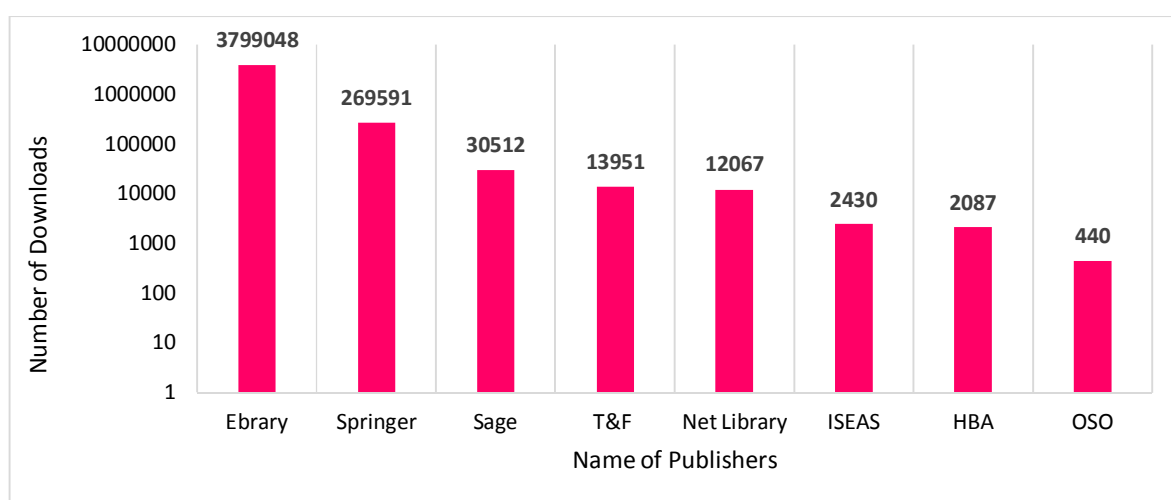


Fig.42: Publisher-wise Usage of E-Books 2021-2022

5.9.6.3. Month-wise Usage of E-Resources

Figure 43 given below reflects month-wise usage of e-journals and e-books during the financial year 2021- 2022.

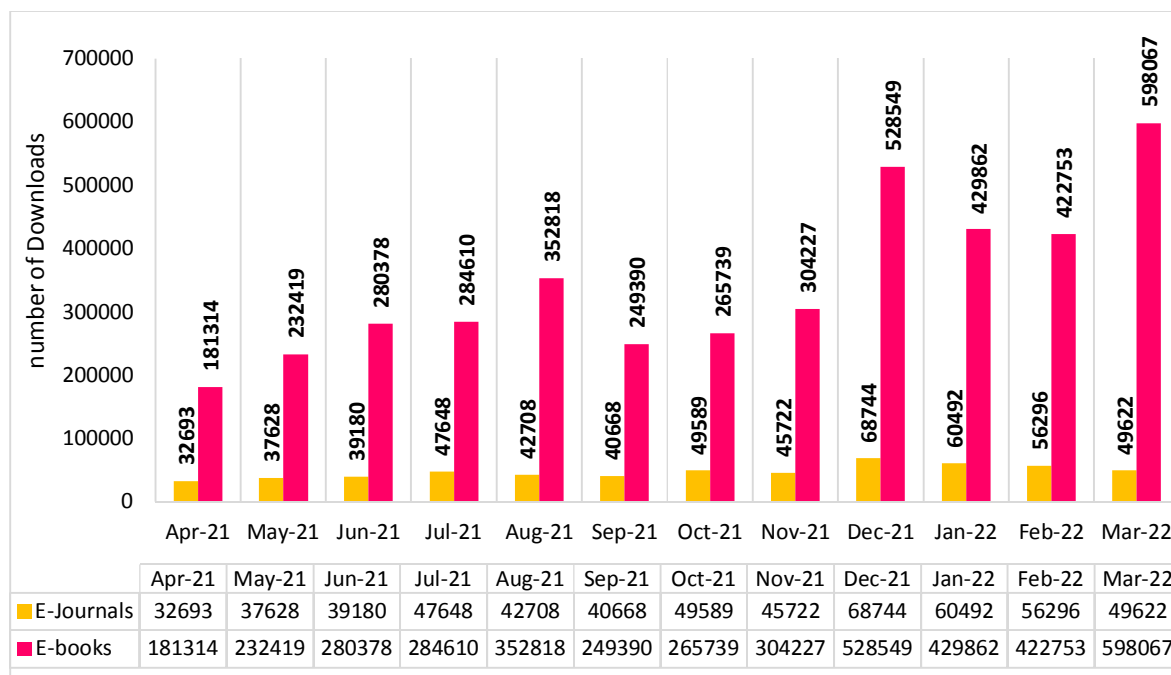


Fig. 43: Month-wise Usage of E-resources for 2021-2022

5.9.6.4. Month-wise Unique Users, Times Login and Pages Views

N-LIST Programme has implemented a new method for reporting usage statistics with the change in N-LIST access methodology from July 2021. The usage includes page views and unique sessions for each user of the college based on the logs generated from N-LIST. Usage statistics of users are updated in the first week of every month. Figure 44 given below shows month-wise unique users who have accessed e-resources, times login and pages viewed to N-LIST resources. The graph shows an average of 24,975 unique users monthly, 75,810 times login and 5,62,714 pages viewed from 3,414 member colleges.

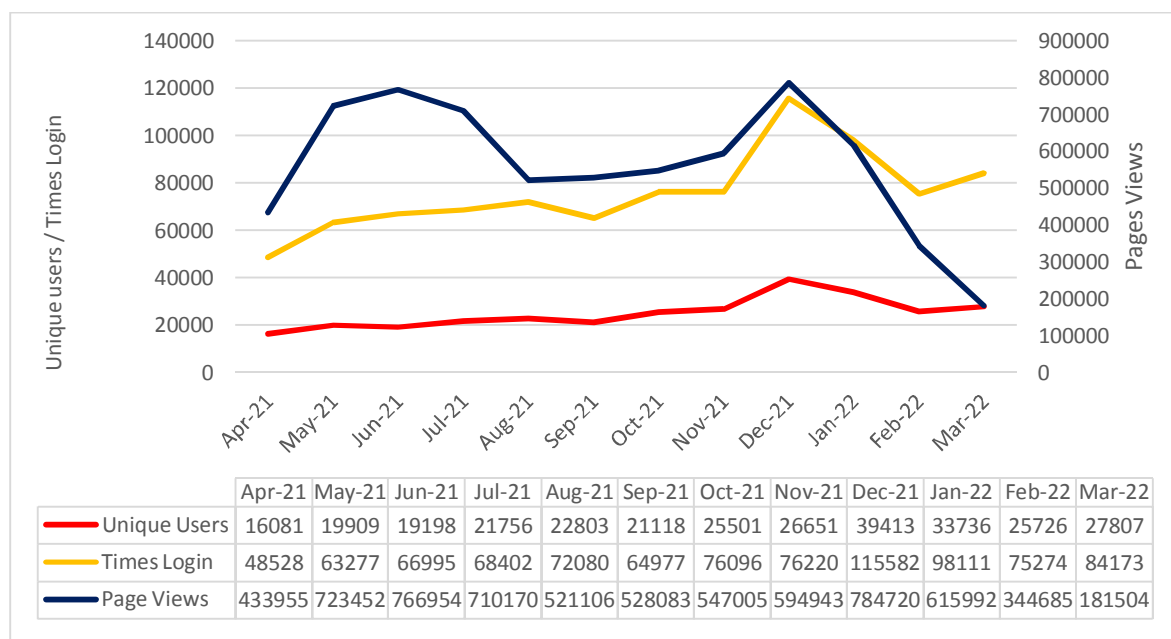


Fig. 44: Month-wise Unique Visitors of N-LIST Programme 2021-2022

5.9.6.5. Daily & Monthly Pages Viewed

A total number of 67,52,569 pages were viewed by the users in member colleges from the subscribed e-resources. An average of 18,500 pages are viewed every day. Figure 45 given below depicts daily pages viewed by the users in member colleges.

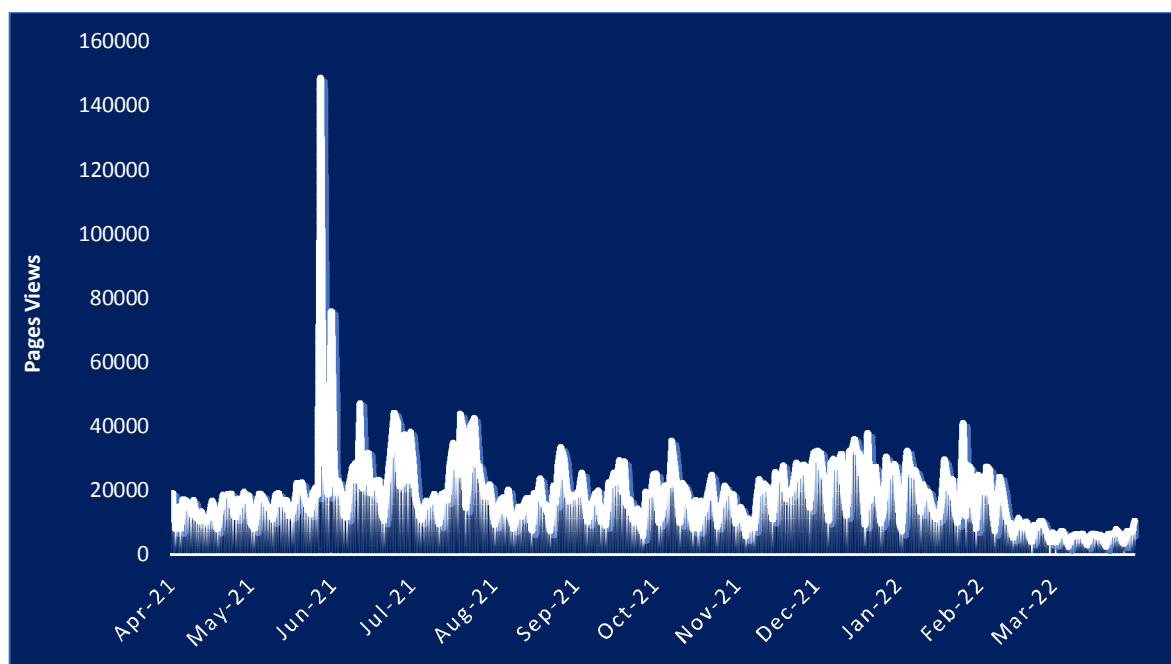


Fig. 45: Month-wise Pages Viewed 2021-2022

5.9.7. Economics of N-LIST Programme

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

5.9.7.1. Cost Recovery

The recovery of cost incurred on e-resources subscribed through N-LIST Programme can be judged in terms of the intensity of use of resources. The cost recovery is calculated on the presumption that if the electronic resources were not available through 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 figure 46 given below that N-LIST Programme has recovered the cost incurred on subscription for all e-resources.

The total cost that has been recovered for the year 2021 amounts to Rs. 477.77 crores as against the total expenditure of Rs. 7.33 crores with Rs. 585.09 crores as the cost of articles downloaded in excess.

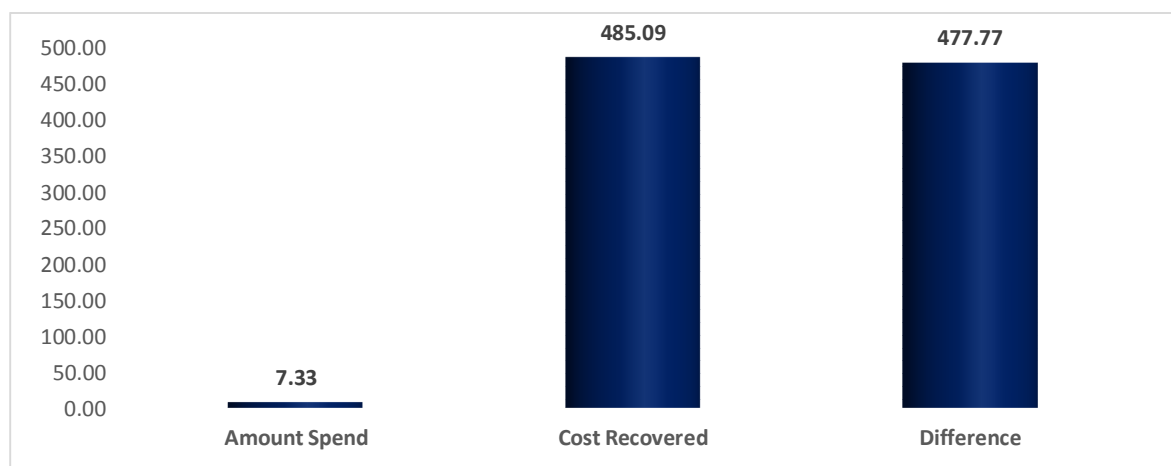


Fig.46: Cost Recovery Factor of e-Journals Subscribed under N-LIST Programme for 2021

5.9.7.2. Lower Rates of Subscription

N-LIST Programme has used a highly innovative pricing model for subscription to e-resources wherein one subscription 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 N-LIST Programme. As such, a total number of 16 subscriptions (on prorated basis) were paid for 3,200 colleges during the financial year under report.

5.9.7.3. Annual Increase in Rates of Subscription

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

5.9.7.4. Average Cost of E-resources Subscribed under N-LIST Programme

5.9.7.4.1. Average Cost of Journals per College

N-LIST programme subscribes to a total number of 6,150 journals for its member colleges. The cost of subscription to e-resources comes down with an increase in the number of colleges. As such, the average cost of a single journal per college computes to Rs. 2.73 in the year 2021 when only 3414 colleges were enrolled for the scheme.

E-resources	No. of colleges	No. Res. Titles.	Price per College Title in Rs
AIP	2000	18	₹ 348.31
Annual Reviews	3200	33	₹ 40.33
EPW	3200	1	₹ 1003.00
Indian Journals	3200	186	₹ 8.60
IOP	2000	46	₹ 48.74
JSTOR	3200	2500	₹ 0.39
OUP	3200	262	₹ 6.74
RSC	2000	29	₹ 121.55
H.W. Wilson	3200	3075	₹ 0.83

Table 27: Average Cost of Journals per College

5.9.7.4.2. Average Cost of E-books

Most of the e-books under N-LIST programme had already been purchased for all existing 3,414 colleges on a “one-time purchase basis or perpetual access basis”. In 2021-2022, only Ebrary was subscribed on an annual subscription basis for 3200 colleges. The average cost per book per college of Ebrary was Rs. 0.04.

E-resources	No. of colleges	No. Res. Titles	Price per College per Title in Rs.
ProQuest Academic Collection (formerly known as Ebrary)	3200	185227	₹ 0.04

Table 28: Average Cost of E-books per College per Title

5.9.8. New Method for Reporting Usage Statistics

N-LIST Programme has implemented a new method for reporting usage statistics with the change in N-LIST Access Methodology from July 2021 and the old format is available for the previous month and years also. Colleges can select the months to show the usage statistics. The new usage statistics now include page views and unique sessions for each user of the college based on the logs generated from N-LIST. Usage statistics of users are updated in the first week of every month. This feature is available under the Usage Statistic tab in the NLIST College Administrator Module. Users Activity shows the unique users of that college who have access to e-resources, Times login shows how many times users have logged in and page views show pages viewed by the users during that period. College can download the said information in CSV format as well as the chart in jpeg format for their reference.

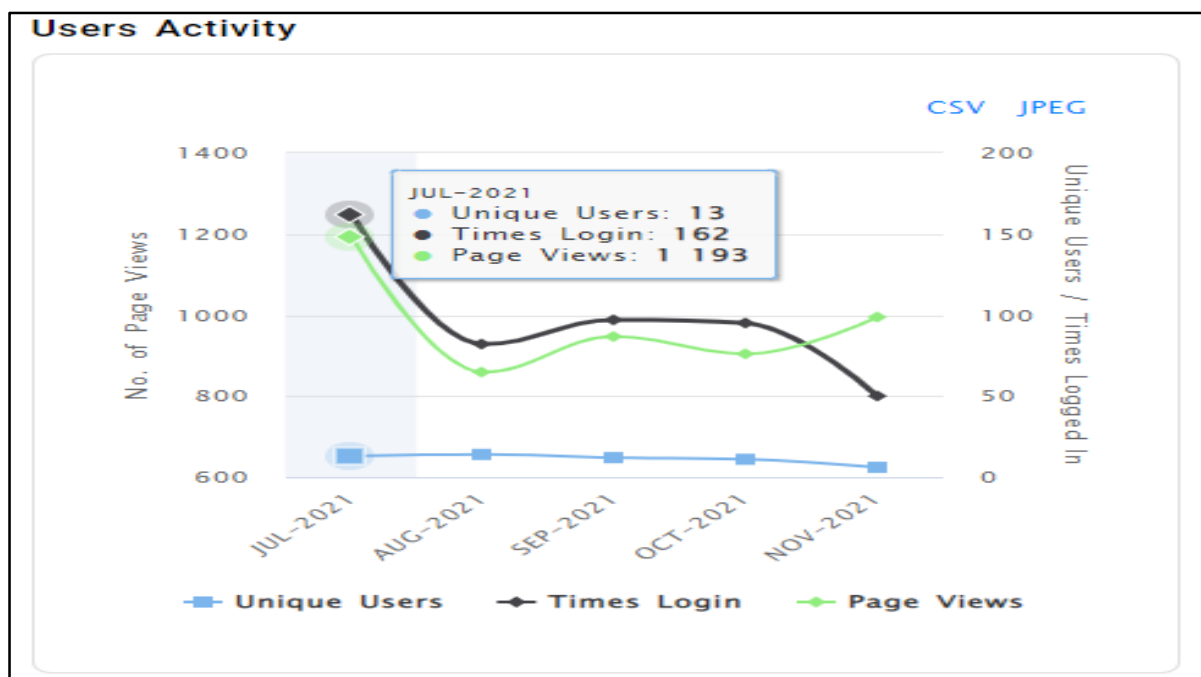


Fig. 47: Users' activity

Colleges can download the data of the top 10 users in CSV format as well as save the chart in JPEG format of selected specific months for their reference.

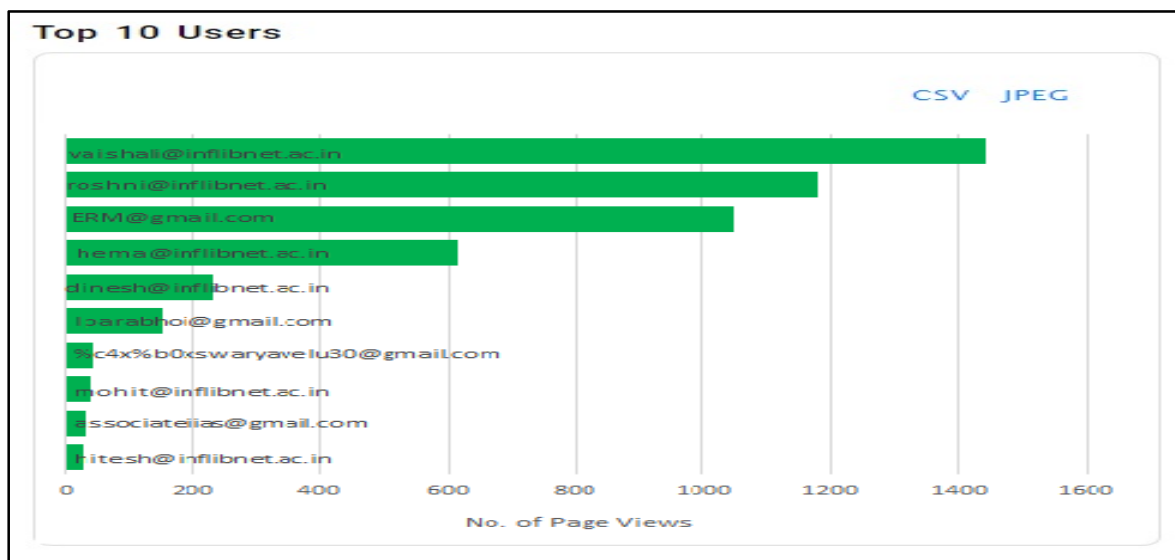


Fig. 48: Top Ten Users

Daily Page views indicate the pages visited by the users of the college. Daily Page views can be downloadable in CSV format and the chart in jpeg format. Details of the usage statistics show the overall usage of the college for selected specific months and it can be exported in excel format. Colleges can maintain the list in ascending order or descending order to check the users' activity by clicking on the particular field mentioned in the table.

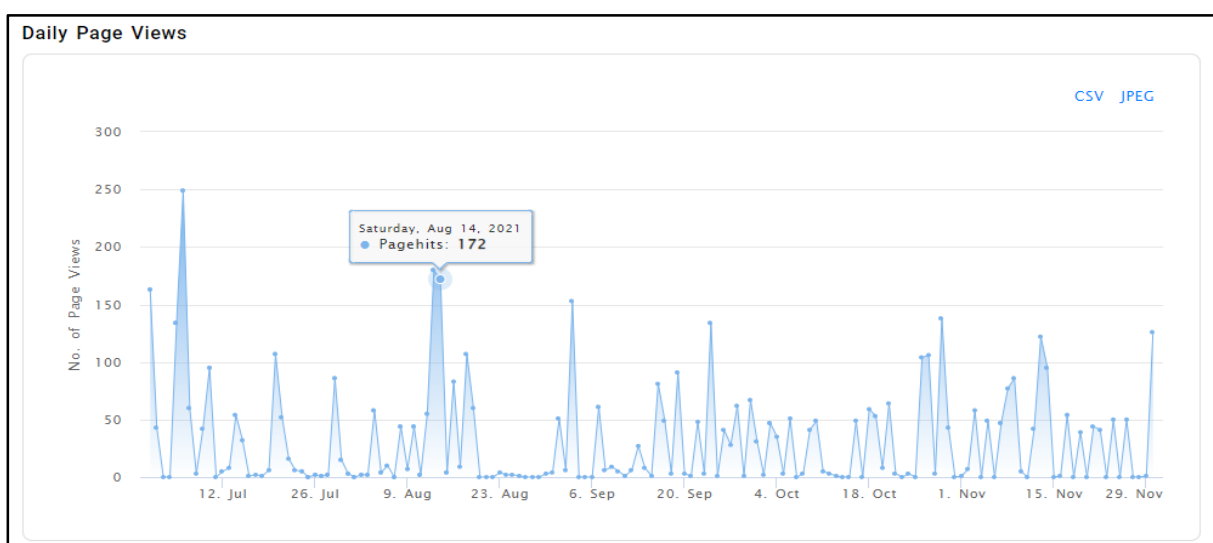


Fig. 49: Daily page Views

Detailed Usage Statistics						
Export		Search: INFLIBNET				
Name	Username	Department	Month	Year	Times Logged In	Page Views
Mrs. Hema	hema@inflibnet.ac.in	INFLIBNET and OTHER Members	11	2021	13	615
Mrs. Vaishali Parikh	vaishali@inflibnet.ac.in	INFLIBNET and OTHER Members	09	2021	13	568
Mrs. Vaishali Parikh	vaishali@inflibnet.ac.in	INFLIBNET and OTHER Members	10	2021	8	370
Roshni	roshni@inflibnet.ac.in	eshodhsindhu	07	2021	101	349
Roshni	roshni@inflibnet.ac.in	eshodhsindhu	10	2021	40	330
Mrs. Vaishali Parikh	vaishali@inflibnet.ac.in	INFLIBNET and OTHER Members	07	2021	6	310
Roshni Yadav	roshni@inflibnet.ac.in		11	2021	23	226
Mrs. Vaishali Parikh	vaishali@inflibnet.ac.in	INFLIBNET and OTHER Members	08	2021	4	192
Roshni	roshni@inflibnet.ac.in	eshodhsindhu	09	2021	43	161
Dinesh	dinesh@inflibnet.ac.in	INFLIBNET and OTHER Members	10	2021	9	113

Showing 1 to 10 of 27 entries (filtered from 56 total entries)

Previous 1 2 3 Next

Fig. 50: Detailed Usage Statistics

5.9.9. Online payment CMP E-Collection (VAN) facility for NLIST membership fees

The NLIST programme adopted an online payment CMP E-Collection (VAN) facility for NLIST membership. Bank Account Number is unique and applicable for your college only. The Annual Membership fee shall be paid through CMP E-Collection (VAN) facility. A Virtual Account Number is a unique account number that is based on logic and masks the original account number.

Membership fees can be remitted to these virtual account numbers through Internet Banking, Branch cash/cheque, NEFT, or RTGS modes. The virtual account no. is a combination of two parts – 'A' which is an institute's masked account (character) and 'B' is a unique college id (digits). Proforma Invoice is available on N-LIST website, and it is mandatory to download the proforma invoice for all N-LIST college Members as the Virtual Account Number will be unique for all college members. Here, Colleges can be easily identified which have paid the membership fees through VAN, so that colleges can get access to NLIST e-resources immediately.

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

The INFLIBNET Access Management Federation (INFED), the first and only access management federation in India, is based on Shibboleth, standard-based open source software, for authenticating authorized users from colleges, universities and other institutes in India. The federation, set up with

the permission of the Governing Board, INFLIBNET Centre provides seamless access to e-resources from anywhere, anytime. INFED is a member of eduGAIN.

As on 31st March 2022, 210 institutes have joined INFED, However, only 158 institutes have completed their setup and availing of INFED services as per the details given below in Table 29 (a). The INFED is working with 43 publishers that are providing access to e-resources to e-ShodhSindhu as per the details given below in Table 29 (b). Moreover, 32 publishers have formally signed membership (Λ) of INFED as per the details given below.

Name of the Institutes	
Alagappa University, Tamil Nadu	LIGO-India Test Scientific Collaboration
Alliance University	Madurai Kamraj University
Ambedkar University Delhi	Mahatma Gandhi University, Kerala
Amet University	Management Development Institute Murshidabad
Anjuman-I-Islam's Kalsekar Technical Campus	Manipal University Jaipur
Anna University	Manipur University
Assam University	MKSSS's Cummins College of Engineering For Women, Pune
Avinashilingam University, Tamil Nadu	Motilal Nehru National Institute of Technology, Allahabad
B.S.Abdur Rahman Crescent Institute of Science and Technology	Nagaland University
Babasaheb Bhimrao Ambedkar University	National Institute for Research in Tuberculosis
Banaras Hindu University	National Institute of Design
Bharathidasan University	National Institute of Fashion Technology
Bharati Vidyapeeth Deemed University, Pune	National Institute of Technology Delhi
BITS Hyderabad	National Institute of Technology Durgapur
BITS Pilani K K Birla Goa Campus	National Institute of Technology Goa
BITS Pilani	National Institute of Technology Tiruchirappalli
Central University of Kerala	National Institute of Technology, Hamirpur
Central University of Haryana	National Law University Odisha
Central University of Jammu	NIIT University
Central University of Odisha	Nirma University
Central University of Punjab	NLIST Users
Central University of South Bihar	O.P. Jindal Global University
Central University of Tamilnadu	PES University
CEPT University	Prin. L. N. Welingkar Institute of Management Development and Research
Cochin University of Science and Technology, Kerala	PSG Technology

Coimbatore Institute of Technology	Regional Centre for Biotechnology
Gandhigram Rural Institute, Tamil Nadu	Sant Longowal Institute of Engineering and Technology
Goa University	Sardar Vallabhbhai National Institute of Technology, Surat
Government Engineering College, Bhuj	School of Planning and Architecture
Government Engineering College, Dahod	Shiv Nadar University
Government Engineering College, Valsad	LIGO-India Scientific Collaboration
Gulbarga University	Shivaji University, Kolhapur
Indian Institute of Engineering Science And Technology, Shibpur	Sikkim University
Indian Institute of Information Technology, Nagpur	South Asian University
Indian Institute of Management Sirmour	Sree Shankaracharya University of Sanskrit
Indian Institute of Management, Ahmedabad	Sri Ramakrishna Engineering College
Indian Institute of Science, Bengaluru	SRM University AP Amaravati
Indian Institute of Technology (Indian School of Mines) Dhanbad	St Joseph Engineering College, Mangalore
Indian Institute of Technology Delhi	Tamil Nadu Physical Education and Sports University
Indian Institute of Technology Guwahati	Tamil Nadu Veterinary and Animal Sciences University
Indian Institute of Technology Madras	Techno India University
Indian Institute of Technology Palakkad	Thapar Institute of Engineering and Technology
Indian Institute of Technology, Palakkad	Translational Health Science And Technology Institute (THSTI)
Indira Gandhi Institute of Development Research (IGIDR)	Tumkur University
Indraprastha Institute of Information Technology Delhi (IIIT-Delhi)	University of Calicut
INFLIBNET Staff	University of Delhi
Institute for Social and Economic Change	University of Madras
Institute of Infrastructure Technology Research and Management	Vellalar College For Women
International Institute of Information Technology Bangalore	Vidyasagar University
Inter-University Centre for Astronomy and Astrophysics, Pune (IUCAA)	VIGNAN's Foundation for Science, Technology and Research
JSS Academy of Higher Education and Research	Vinayaka Mission's Research – DU
Kongu Engineering College	Vivekanand Education Society

Kurukshetra University	Zeal College of Engineering and Research
L.E. College Morbi	

Table 29 (a): Institutes IDP set up done by the INFLIBNET Centre

Publishers Members of INFED	
ACM Digital Library (^)	MathSciNet (^)
American Chemical Society (^)	Mathworks(^)
American Institute of Physics (^)	Nature (^)
American Physical Society	Optical Society of America (^)
Annual Reviews (^)	Oxford University Press (^)
ASCE Journals Online (^)	Palgrave (^)
ASME Journals Online (^)	PHI Learning Pvt. Ltd. (^)
ASTM Standards Digital Library	Portland Press
Cambridge University Press (^)	Project Euclid(^)
Capital Market Publishers India Pvt. Ltd.(^)	Project Muse (^)
Capitaline (^)	Proquest (^)
CRIS INFAC Industrial Information	Royal Society of Chemistry (^)
Ebsco (^)	Sage (^)
Emerald Publishing (^)	ScienceDirect(^)
Euromonitor Passport (^)	SciFinder Scholar
Faculti Media Limited (^)	Scopus (^)
IEEE Electronic Library Online (^)	SheerIDInc (^)
Indian Journals (^)	SIAM (Society For Industrial and Applied Mathematics)
Institute of Physics (^)	Springer Link (^)
J-Gate Plus (^)	Taylor and Francis (^)
JSTOR (^)	Web of Science (^)
LIGO India IUCAA (^)	Wiley Blackwell Publishing (^)

(^)**Formally Signed Membership**

Table-29 (b): Publishers

6. e-Learning, Content Development and MOOCs

Since the pandemic situation of Covid-19 across the country, the Centre has taken it as an opportunity and opened its wings to the academic community. Some of the major initiatives are ILMS (INFLIBNET Learning Management Service), Online Digital Platform, Scaling up e-Learning portals such as Integrated e-Content Portal, e-PG Pathshala, etc. Currently, the Centre is providing the following e-Learning services:



Fig. 51: E-learning platforms

6.1. INFLIBNET Learning Management Service (ILMS) (<https://www.inflibnet.ac.in/ilms>)

The INFLIBNET Learning Management Service (ILMS) is a service offered by the Information and Library Network Centre to institutions of higher education across the country. This service is being offered to all the Central, State and Deemed universities. Some of the core features of this service are Course creation, Enrollment, Assignment & Assessment, Discussion forum, etc.

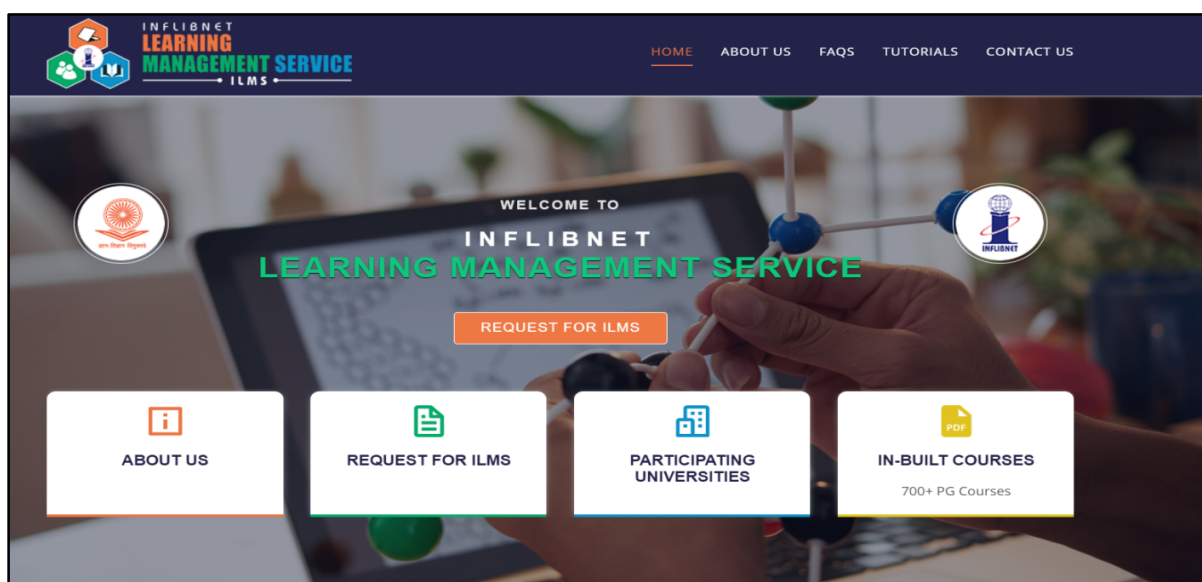


Fig. 52: INFLIBNET Learning Management Service (ILMS)

The unique feature of this platform/service is its courses i.e. it provides pre-populated learning content of PG courses which was developed under e-PG Pathshala as per the prevailing guidelines of

UGC. The Centre is working for UG and archival of SWAYAM courses also to incorporate in it. The Centre is using open-source learning management (Moodle) software.

During the Covid-19 pandemic, Institutes were suffering to conduct their routine academic activities properly, and this ILMS platform helped participating institutions in their academic teaching activities. The dedicated website of ILMS is available at <https://www.inflibnet.ac.in/ilms/>. As on 31st March 2022, the INFLIBNET Centre has deployed this ILMS service for 31 institutions in the country including 14 during the reported period, i.e. Central University of Andhra Pradesh, Anantapur; National Institute of Social Defence, New Delhi; Central University of Rajasthan, Ajmer, Jagat Guru Nanak Dev Punjab State Open University (PSOU), Patiala, Indian Maritime University, Mangalayatan University, Aligarh; Swami Vivekanand Subharti University, Meerut; Cotton University, Guwahati; Karnataka Samskrit University, Bangalore; Doon University, Dehradun; University of Jammu, Jammu Manav Rachna International Institute of Research and Studies, Faridabad; NIIT University, Neemrana; and Gujarat Vidyapith, Ahmedabad. Currently, a total of 1000+ courses are incorporated into the repository. Prof Manoj K Dhar, Vice-Chancellor on behalf of the University of Jammu and Prof J P Singh Joorel, Director on behalf of the INFLIBNET Centre, Gandhinagar Gujarat signed a Memorandum of Understanding (MoU) for the implementation of INFLIBNET Learning Management Service (ILMS) on 10th January 2022.

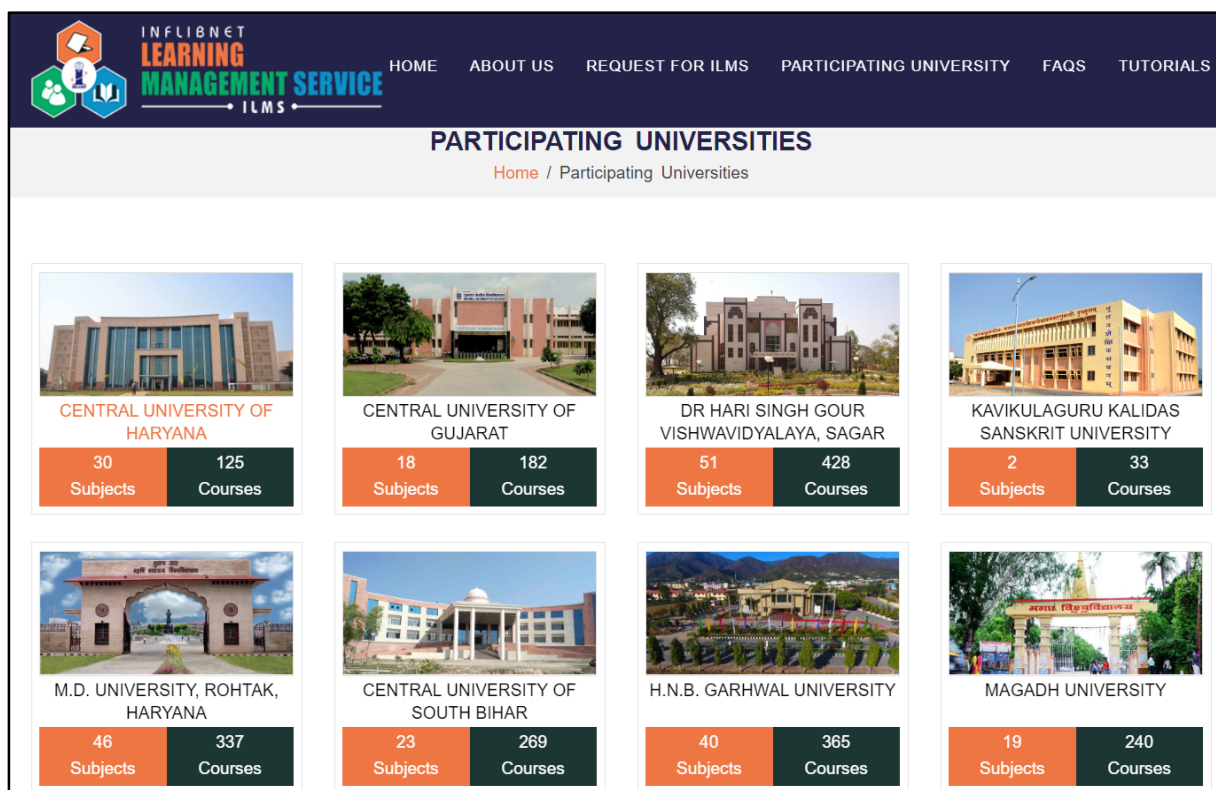


Fig. 53: Participating Universities in ILMS

6.2. e-PG Pathshala: Production of Courseware E-content for Postgraduate Subjects

(<http://epgp.inflibnet.ac.in/>)

The Centre has completed the e-PG Pathshala, a Ministry of Education, Government of India initiative under its National Mission on Education through ICT (NMEICT), executed by the UGC. The Centre is continuing the maintenance work of the website as well as creating e-books. Currently, more than 700+ e-books have been created.

The outcomes of e-PG Pathshala are as follows:

- Developed e-content in 70 subject areas at the PG level drawing expertise from subject experts in colleges and universities;
- 23000+ e-modules for PG courses and available in open access.
- Modules are in four-quadrant (e-Text, video, self-assessment, learn more)
- Satisfactory usage of e-content amongst students and peers

6.3. SWAYAM PRABHA

The SWAYAM PRABHA, a Ministry of Education, Government of India project under NMEICT, is conceived as a group of 34 DTH channels devoted to telecasting high-quality educational programmes on a 24X7 basis using the GSAT-15 transponders. The INFLIBNET Centre has continued the task of development and maintenance of the SWAYAM PRABHA portal and its hosting including archiving of videos for all the channels during 2021-22.



Fig. 54: SWAYAM PRABHA Website

The platform provides for uploading of programme schedule by the channel coordinators, display of programme schedule (current, upcoming and archives), searching of e-content/videos using different kinds of filters such as channel-wise search and subject-wise search; and dashboard for the Ministry of Education, BISAG and admin view. Channels details are as follows:

Sr No	Discipline	Channel	Name
1	Higher Education	CH_o1	Channel o1: VAGEESH: CEC/UGC: Humanities- 1, Language and Literature
2	Higher Education	CH_o2	Channel o2: SANSKRITI: CEC/UGC: Humanities- 2, History, Culture & Philosophy
3	Higher Education	CH_o3	Channel o3: PRABODH: CEC/UGC: Social Science -1, Social & Behavioral Sciences
4	Higher Education	CH_o4	Channel o4: SAARASWAT: CEC/UGC: Social Science - 2, Education, Psychology, Home Science and related subjects
5	Higher Education	CH_o5	Channel o5: PRABANDHAN: CEC/UGC: Social Science - 3, Management, Library Science, Information Science and related subjects
6	Higher Education	CH_o6	Channel o6: VIDHIK: CEC/UGC: Social Science - 4, Law, Legal Studies, Human Rights and related subjects
7	Higher Education	CH_o7	Channel o7: KAUTILYA: CEC/UGC: Economics, Commerce and Finance
8	Higher Education	CH_o8	Channel o8: ARYABHATT: CEC/UGC: Physical sciences, Mathematics, Physics, Chemistry and related Subjects
9	Higher Education	CH_o9	Channel o9: SPANDAN: CEC/UGC: Life Sciences, Botany, Zoology, Bio-Science and related subjects
10	Higher Education	CH_10	Channel 10: DAKSH: CEC/UGC: Applied Sciences, Allied Physical and Chemical sciences and related subjects
11	Higher Education	CH_11	Channel 11: NPTEL: Mechanical Engineering and related subjects

12	Higher Education	CH_12	Channel 12: NPTEL: Civil Engineering and related subjects
13	Higher Education	CH_13	Channel 13: NPTEL: Computer Science/IT and related branches
14	Higher Education	CH_14	Channel 14: NPTEL: Electrical engineering, Electronics and Communication and related subjects
15	Higher Education	CH_15	Channel 15: NPTEL: Engineering Sciences and related subjects
16	Higher Education	CH_16	Channel 16: NPTEL: Humanities, Management and other branches
17	Higher Education	CH_17	Channel 17: IGNOU: Social Science and Humanities
18	Higher Education	CH_18	Channel 17: IGNOU: Basic and Applied Sciences
19	Higher Education	CH_19	Channel 19: Professional and Vocational Education
20	Higher Education	CH_20	Channel 20: IGNOU: State Open Universities and Teacher Education
21	Higher Education	CH_21	Channel 21: Vyas (CEC)
22	Higher Education	CH_22	Channel 22: IIT PAL
23	School Education	CH_23	Channel 23: Class-1 PM-eVidya
24	School Education	CH_24	Channel 24: Class-2 PM-eVidya
25	School Education	CH_25	Channel 25: Class-3 PM-eVidya
26	School Education	CH_26	Channel 26: Class-4 PM-eVidya
27	School Education	CH_27	Channel 27: Class-5 PM-eVidya
28	School Education	CH_28	Channel 28: Class-6 PM-eVidya
29	School Education	CH_29	Channel 29: Class-7 PM-eVidya
30	School Education	CH_30	Channel 30: Class-8 PM-eVidya
31	School Education	CH_31	Channel 31: Class-9 PM-eVidya
32	School Education	CH_32	Channel 32: Class-10 PM-eVidya

33	School Education	CH_33	Channel 33: Class-11 PM-eVidya
34	School Education	CH_34	Channel 34: Class-12 PM-eVidya

Table 30: Details of Channels

6.3.2. Silver Creator Award by YouTube to the Swayam Prabha channel

The Swayam Prabha channel, the INFLIBNET Centre has been awarded the Silver Creator Award by YouTube, for its impressive milestone of reaching 100,000 subscribers on YouTube. A Certificate and a Silver Plate have been provided to the INFLIBNET Centre as part of the recognition for the same.



Fig. 55: Silver Creator Award by YouTube to the Swayam Prabha channel

6.4. Study Webs of Active Learning for Young Aspiring Minds (SWAYAM): UGC-MOOCs

The INFLIBNET is executing this project under the guidance of the University Grants Commission. The major role of the INFLIBNET Centre is to provide a web interface for course proposals and a dedicated portal for UGC-MOOCs being used by UGC and CEC. Portal provides a dashboard for SWAYAM coordinators, and mentors, information on PG-courses updates, workshop details, etc. The Centre has continued all the said activities for the year 2021-2022.

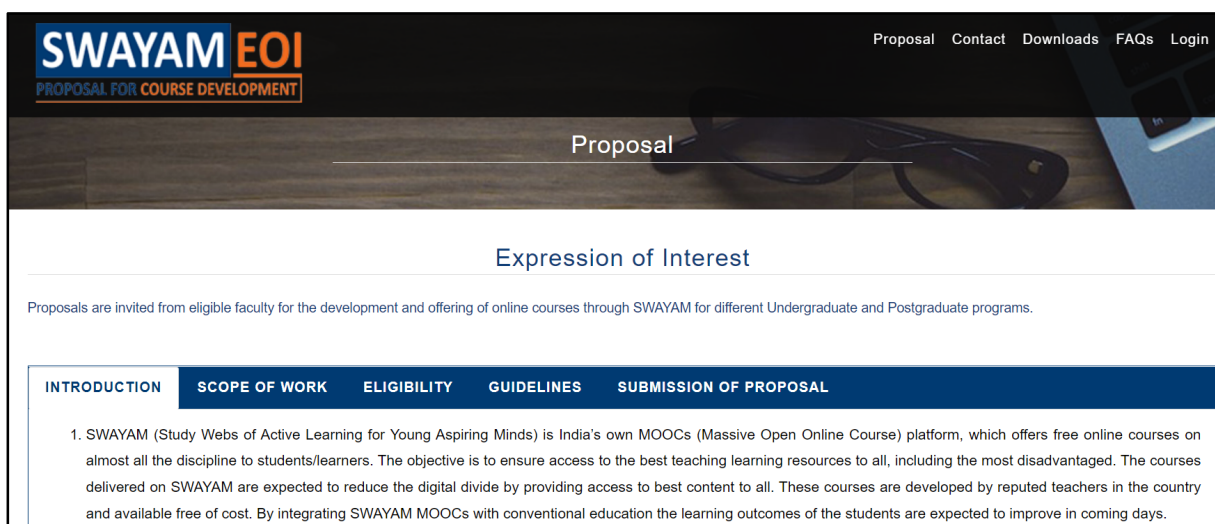


Fig. 56: Home page of UGC-MOOCs-EoI



The Centre has continued the web application for the invitation of the proposal through <https://swayam.inflibnet.ac.in>. All the new courses under said national coordinator have been identified through the portal. The portal also facilitates a dashboard for the University Grants Commission for the administrative task and relevant information on UGC-MOOCs.

6.4.1. INFLIBNET Centre as an Anchor Institute for SWAYAM-MOOC Course on Research Ethics

The 4-credit UGC SWAYAM-MOOC course (15 Weeks) on Research Ethics under 'Development of Non-Technology PG Degree Online Courses' was successfully conducted for the 3rd consecutive year in the 2021 (July-December'2021) Semester.

There were 3063 learners & students enrolled in this course which is conducted by the INFLIBNET Centre as an Anchor Institute and the Central University of Himachal Pradesh as the Host Institute. The majority of age groups enrolled in the course were between 20 - 30 years old (1313 out of 3063) and 50.14% were students, 33.10% were faculty members, 9.27% were employed and 7.44% were others as per the SWAYAM portal. Each module has 10 graded questions comprising 15 Internal Assessments (Quiz/MCQs). Further, 914 students/learners registered for the final exam which was conducted on 21st & 22nd February 2022 by the National Testing Agency (NTA) and it is recorded as the highest number of students registered for the final examination. Paper Evaluation of Answer Booklets of 914 students for Final Examination (Pen & Paper) have been evaluated and completed on 31st March 2022.

Shri Manoj Kumar K, Scientist-E (CS), INFLIBNET Centre, Gandhinagar, Gujarat was the Course Coordinator (CC) for the MOOC course.


[About Swayam](#) | [All Courses](#) | [SIGN-IN / REGISTER](#)

[Courses >](#)

Research Ethics

By Shri Manoj Kumar K | Central University of Himachal Pradesh

Learners enrolled: 3063



Summary

Course Status :	Ongoing
Course Type :	Core
Duration :	15 weeks
Start Date :	01 Jul 2021
End Date :	31 Oct 2021
Exam Date :	15 Nov 2021 IST
Enrollment Ends :	31 Aug 2021
Category :	◦ Multidisciplinary
Credit Points :	4
Level :	Postgraduate

Academic honesty, integrity and research ethics are underlying tenets for conducting qualitative research.

Fig. 57: UGC Swayam-MOOCs Course organised by the INFLIBNET Centre

Table 31 shows the total enrollment of students in the UGC-SWAYAM MOOC Research Ethics Course from 2019 to 2022.

Sl. No.	Academic Year	Total Enrolment	Total Registration in Final Examination	Remarks
1	July-December Semester 2019	2295	160	Result Declared
2	July-December Semester 2020	1806	183	Result Declared
3	July-December Semester 2021	3063	914	Result in Process
4	January-July Semester 2022	1557	n/a*	On Going

Table 31: Total enrollment of students in the UGC-SWAYAM MOOC Research Ethics Course

6.5. Vidya-Mitra

The Vidya-Mitra Project was assigned to the INFLIBNET Centre in May 2014. It is an integrated e-Content Portal for all the e-content projects developed under the NMEICT, Ministry of Education,

Government of India. Vidya-mitra hosts 66,000+ Video (Self-learning / e-Tutorial) and 44,000+ e-Text. Though the project has been completed, INFLIBNET Centre is providing free hosting services for e-contents developed by faculty members/academia across Indian institutions on a request basis. The Centre is continuing the work of hosting and maintenance of Vidya-Mitra.

6.6. One India Digital Platform

The INFLIBNET Centre has taken an initiative to make available all the resources being developed under NMEICT, Ministry of Education, Government of India through a single web interface. As an outcome, "One India Digital Platform" is being developed by the Centre and it is under beta mode. It is an integrated e-Content portal that provides a facility to search and browse all hosted content or metadata of other hosted content wherein a learner can easily access the desired material including audio/video learning material, textual material, multimedia enriched materials etc. It is made for learners of higher education. The major source of content i.e. archival courses of SWAYAM (Non-Technology), video tutorial of SWAYAM-PRABHA and e-PG Pathshala has been incorporated.

7. Ranking of Institutions and Accreditation

The Centre is involved with all the government agencies of accreditation and ranking including India Rankings under NIRF, ARIIA, e-NBA, and NAAC.

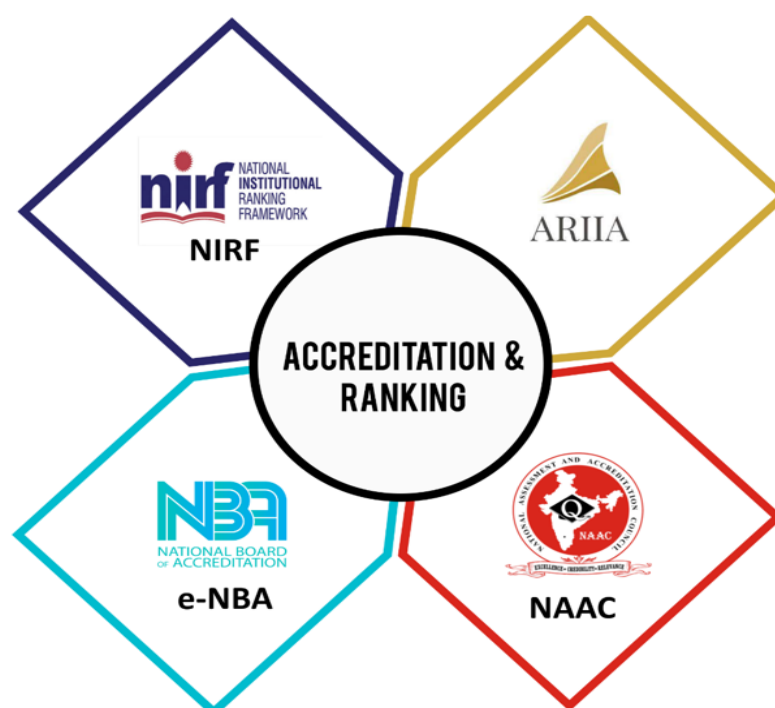


Fig. 58: NIRF, ARIIA, e-NBA, and NAAC

7.1. e-Release of India Rankings 2021 under National Institutional Ranking Framework (NIRF)

The INFLIBNET Centre has continued the project National Institutional Ranking Framework (NIRF) and successfully executed the 6th exercise of "India Rankings 2021" under NIRF. The Centre was responsible for the development of the NIRF Web Portal/platform including several modules of NIRF such as a data capturing system, feedback system, and ranking module along with research data incorporation. The Centre also provided and verified data on publications, citations, patents and highly cited papers. The Centre has also deployed a technical help desk team at its premises to support institutions with their queries.

India Rankings 2021 was e-released by the Hon'ble Minister of Education, Shri Dharmendra Pradhan in the august presence of Hon'ble Ministers of State for Education, Smt. Annapurna Devi and Dr Subhas Sarkar, and Dr Rajkumar Ranjan Singh, Hon'ble Minister of State for External Affairs and Education on 09th September 2021. The work done by INFLIBNET Centre was appreciated. Further, the Centre has started to work for the 7th exercise of NIRF, i.e. NIRF 2022.



Fig. 59: India Rankings 2021

7.2. Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2021-2022

ARIIA is an initiative of the Ministry of Education to systematically rank all major higher educational institutions and universities in India on indicators related to "Innovation and Entrepreneurship Development" amongst the students and faculties. The INFLIBNET Centre has successfully executed the 3rd year exercise of the Atal Ranking of Institutions on Innovation Achievements (ARIIA) framework which was launched by Hon'ble Minister of State for Education, Dr Subhas Sarkar on 29th December 2021 during the reported period. The Centre is a technical partner of ARIIA project and has signed MoU with AICTE for the same.



Fig. 6o: ARIIA 2021

The Centre has done the following activities under ARIIA.

- A dedicated website of ARIIA
- Web applications
- Registration module
- Data Capturing Module
- Feedback Mechanism Module
- Ranking / Scoring Module
- Analytical dashboard
- Created MRIP (Metadata Repository for Indian Patent)

7.3. e-NBA: Accreditation Workflow Management System (AWMS)

The Centre is continuing the “Accreditation Workflow Management System (AWMS)” awarded by e-NBA to automate their accreditation workflow. The Centre is involved in developing a full-fledged online platform of accreditation workflow management system for technical institutes based on requirements provided by the National Board of Accreditation since 2018. The Centre has developed the Pre-Qualifiers (PQs) and Self-Assessment Report (SAR) for Management, Diploma Pharmacy and HMCTs disciplines. Besides, the Centre has completed the Team composition and Evaluator workflow system for the Engineering discipline which is under a testing environment. Apart from that, the Centre has also created multi-level dynamic reporting for NBA and Ministry of Education, Government of India to view daily statistics based on PQs and SAR for various disciplines.

7.4. NAAC: The INFLIBNET Centre has been assigned the job of providing publications, citations, H-index and other related bibliometric data to NAAC for institutions that are to be accredited by NAAC since November 2017. The Centre has continued the work for the reported period.

8. VIDWAN and Indian Research Information Network System (IRINS)

(<http://vidwan.inflibnet.ac.in>)

VIDWAN: Expert Database and National Researcher's Network is the premier database of profiles of scientists and faculty members working in leading academic institutions and other R & D organizations in India and abroad. The principal objectives of this database are: i) to provide information about experts to peers, prospective collaborators, funding agencies, policymakers and research scholars in the country; ii) to establish communication between subject experts and research scholars; iii) to identify peer reviewers for reviewing articles and research proposals; iv) to create information exchanges and networking opportunities among scientists and v) to discover prospective collaborators for on-going research projects.

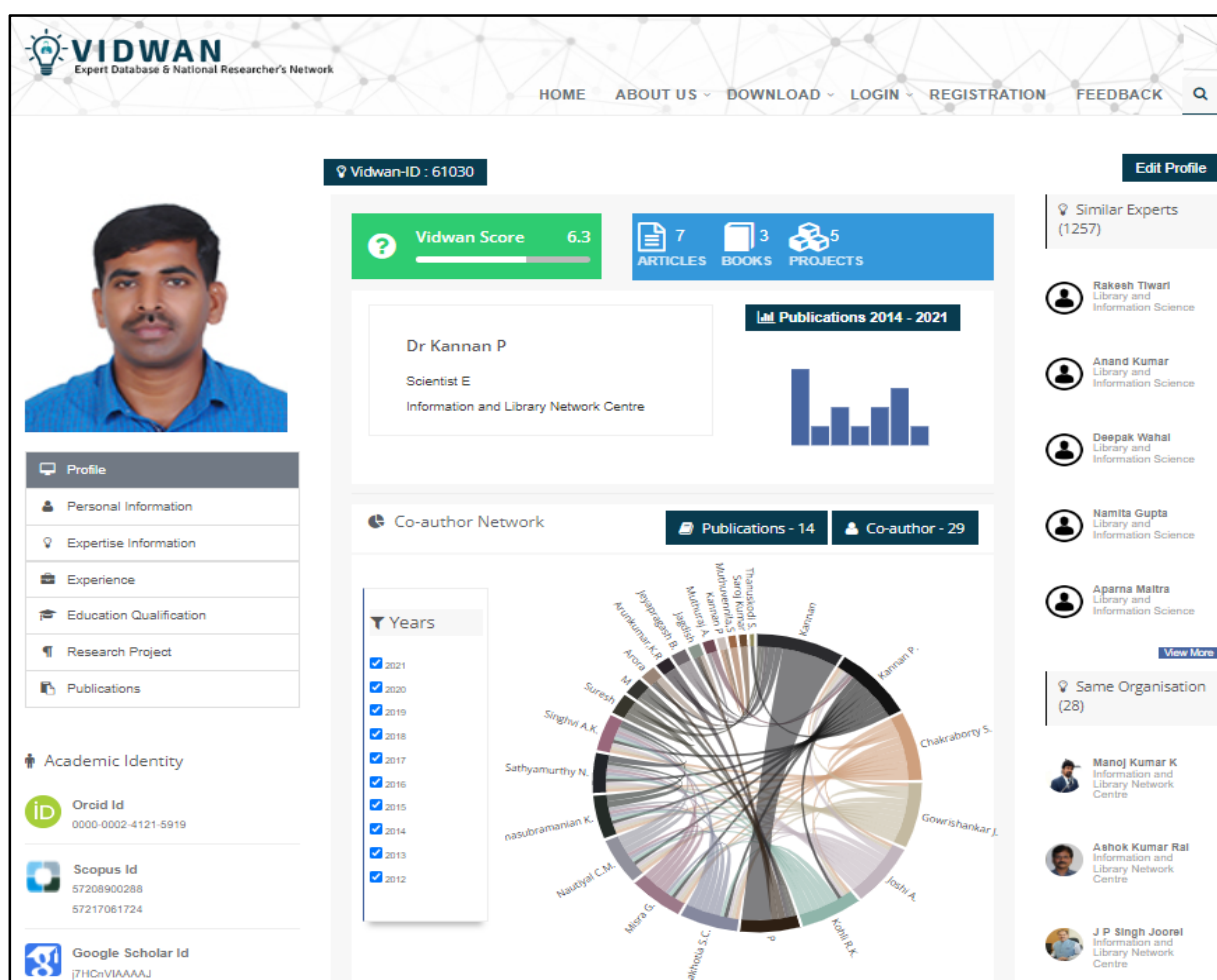


Fig. 61: VIDWAN: Expert Profile with Co-author Network

A persistent URL with credentials are issued to each expert facilitating them to edit and update their profile information. Data ingest dashboard was developed to import the profile information as the

administrator. A solr-based faceted search interface was incorporated to search the database on various parameters such as name, designation, area of expertise, organization, organization type, state, etc. with filters to narrow down the search. The profiles of an expert can also be browsed by Web of Science Subject Categories and organization categories. As on 31st March 2022, the database contained 1,21,988 expert profiles from more than 12,510 institutions including academic and R&D organizations in India and abroad. Also, VIDWAN database contains more than 17.12 lakhs of publication metadata from various sources. Figure 61 depicts a screenshot of an Expert Profile with Co-author Network in VIDWAN. And, during the reported period, a total of 33,527 numbers of new profiles were created/added in VIDWAN. The total page views for VIDWAN expert database was 7,952,139 during the reported period.

8.1. Progress made During the Year 2021-2022

During the reported period, a total of 33,527 new expert profiles and 4.95 lakhs of publication metadata were added into the database and existing profiles were updated with scholarly articles and academic identities, etc. An API to harvest citation information from scite (smart citations) was added during the period.

8.2. Indian Research Information Network System (IRINS) (<http://irins.inflibnet.ac.in>)

Indian Research Information Network System (IRINS) is the Web-based research information management and network system developed by the INFLIBNET Centre under the National Mission on Education through ICT (NMEICT) -II. The portal facilitates the academic, R&D organizations, faculty members, and scientists to collect, curate and showcase their scholarly communication activities and provides an opportunity to create a scholarly network. IRINS is available as free software-as-service to academic and R&D organizations in India. It supports the organisation to integrate the existing academic system such as the HR system, grant management system, institutional repository, etc. It has been integrated with academic identities such as ORCID ID, Scopus ID, Research ID, Microsoft Academic ID, Google Scholar ID and scite for retrieving scholarly publications and citations.

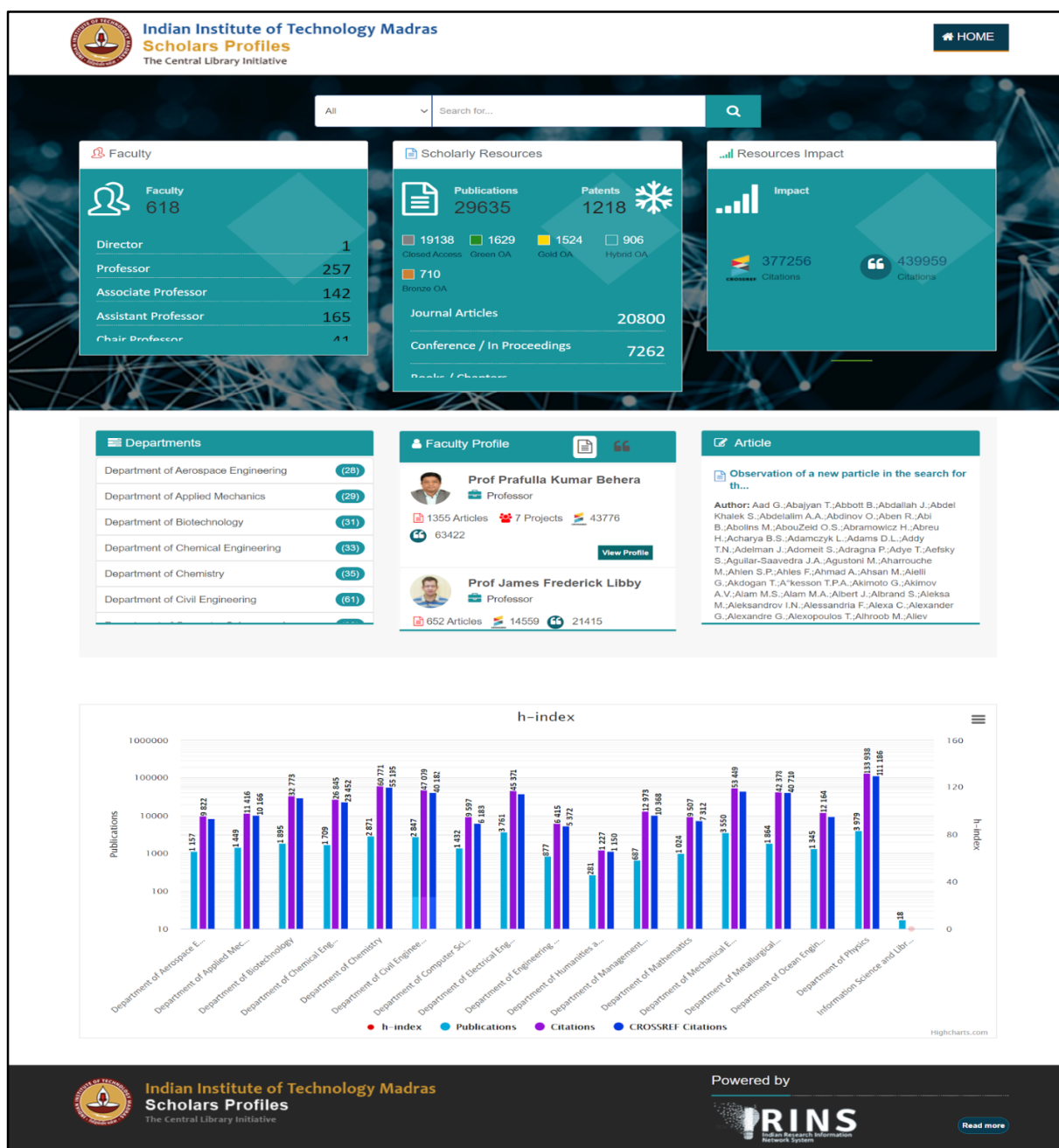


Fig. 62: IRINS Instance of IIT Madras

8.2.1. Key Features and Functionalities of IRINS

IRINS supports the organisation in systematically collecting scholarly communication data and generating various reports as and when required. IRINS supports the research scholars and students in finding the desired faculty members in their respective areas of interest for research work and higher studies. The system facilitates the faculty members to share their research contributions to

the academic community and bring more visibility to their research works. Also, it supports the faculty members in doing collaborative research in their respective areas of expertise and increasing national and international funding opportunities. IRINS supports policy makers by providing experts for project review and other national-level collaborative projects.

IRINS provides more significant exposure to the faculty members for sharing their research contributions to the international community and brings more collaborators for multidisciplinary research, and it improves the research metadata quality and reduces the repetitive data entry for various assessment systems. IRINS enables the administrator to build research reports, and performance assessments, and strategically analyse the research progress for better decision-making on funding, faculty assessment and resource allocation.

The core features and functional use of IRINS are given below:



Fig. 63: Functional use of IRINS

- The nodal officer/research administrator could organise the data and generate various reports required by the head of the institute and funding agencies, such as the number of articles published by the institute, department and faculty members with citation and h-Index.
- It supports the faculty members and institute to organise the information of the project with funding details.
- The research-related data supports the organisation of an annual academic review of the department and faculty members. It assists the faculty members to pull scholarly communication data from different sources;
- Faculty could generate CVs with up-to-date information for project proposals, job applications, etc.

-
- The system supports the institute to provide faculty and their publication information for national and international level assessment systems such as the National Institutional Ranking Framework (NIRF), the National Assessment and Accreditation Council (NAAC), the Atal Ranking of Institutions on Innovation Achievements (ARIIA), etc.
 - The publication metadata in the system interlinked with the institutional repository and other open-access platforms for full-text articles brings more visibility to the faculty members' research contribution and the institute.
 - Solr-based search engine to search the desired faculty profile with various filters such as areas of expertise, the designation with the number of publications and citations.
 - The co-author network shows the faculty's collaboration pattern for the specific period and provides the graphical representation of collaborating authors with the number of publications.

8.2.2. IRINS: Instances

IRINS is being offered as a “software-as-service” to the participating institutes. The INFLIBNET Centre has created a total number of 475 IRINS instances for Institutions till the reported period and connected 75,417 faculty members through this project. The project retrieved a total of 13,35,513 publications metadata from various sources and received a total of 147,82,003 citations & received a total of 41,53,333 Altmetrics mentions till the reported period. And, during the reported period, a total of 195 numbers of IRINS instances were created, where a total of 22,939 faculty members got connected, and a total of 398,657 publications metadata were retrieved.

The data analytics dashboard has been created, which is a visual display of research information gathered through IRINS instances with key performance indicators, publications, and metrics. This dashboard provides various tables, graphs, and charts to monitor and analyze the research performance of the institute. It allows the research administrator to benchmark institutes based on publications, and citations. The analytic data dashboard supports the funding agency, and policymakers understand its research performance and department by comparing with one another. The dashboard provides the total number of faculty connected, publication with the venue, citation from Scopus and CrossRef, top 1000 faculty based on research performance, etc.

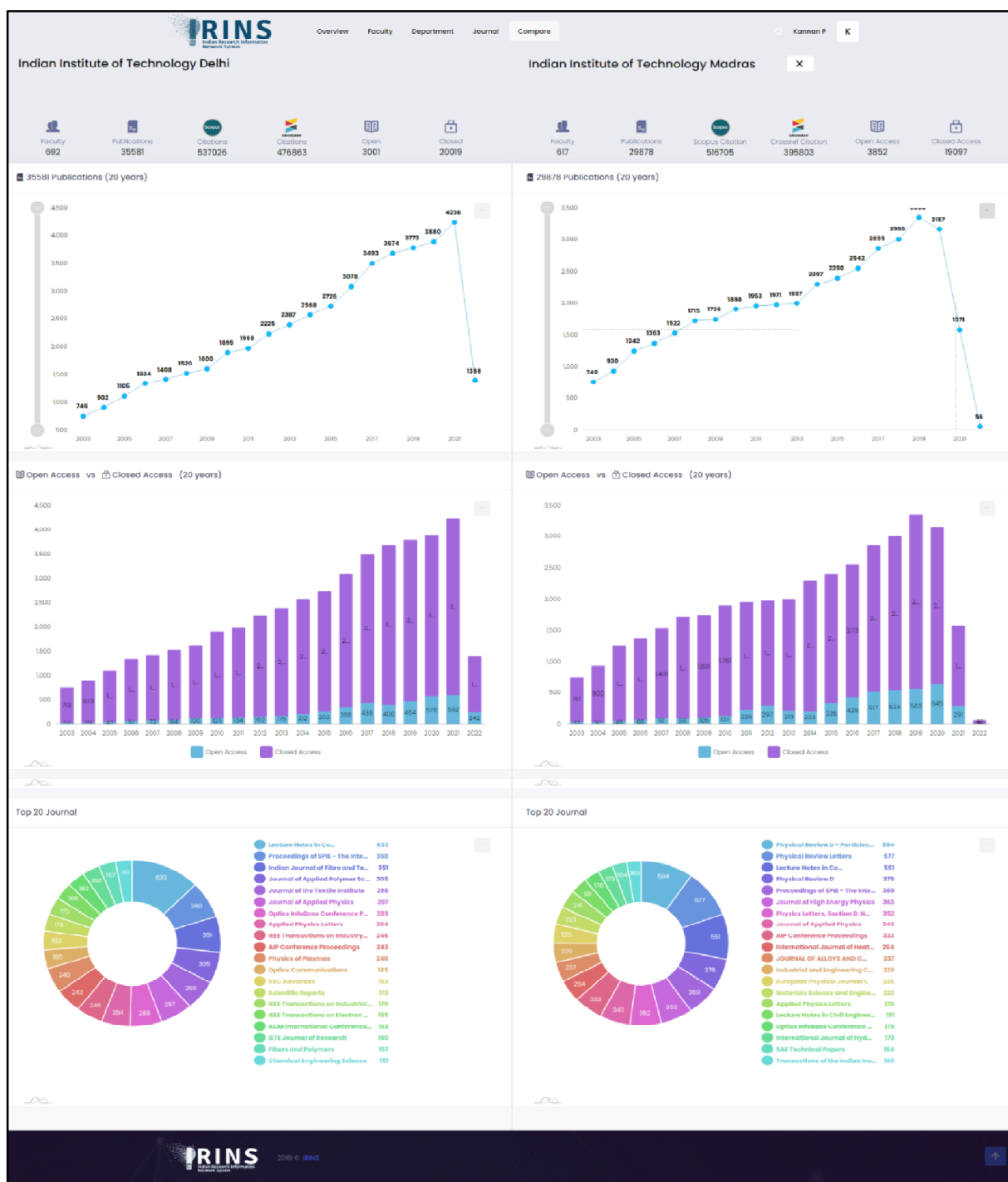


Fig.64: Benchmarking and Comparison of Institutions on IRINS Dashboard

8.2.3. Region-wise Online IRINS Coordinator's Meeting 2021

The INFLIBNET Centre organized the following region-wise Online IRINS Coordinator's Meeting 2021. A total of 204 participants (Institute IRINS Coordinators and Nodal Officers) attended the

meetings. Mr Kannan P, Scientist-E (LS) and Mr Pallab Pradhan, Scientist-C (LS) coordinated the programme. The main objective of these meetings was to get connected with all the IRINS Coordinators/Nodal Officers of the participating institutions across the country virtually. The participants were given brief demonstrations about IRINS & the newly developed features and functionalities in the IRINS Dashboard. Five IRINS Coordinators/Nodal Officers in each meeting were invited to share their experiences & feedback on using IRINS and its benefits for their own institutional academic & research community, and the support they are receiving from the Team IRINS@INFLIBNET Centre.

Sl. No.	Region	Date	Speaker/ Moderator	Registration	Attendees
1	South Region-1: Telangana, Tamil Nadu, Andhra Pradesh and Pondicherry	18 th October 2021	Mr Kannan, P, Scientist-E (LS) / Mr Pallab Pradhan, Scientist-C (LS)	52	48
2	South Region-2: Karnataka, Kerala	20 th October 2021	Mr Kannan, P, Scientist-E (LS) / Mr Pallab Pradhan, Scientist-C (LS)	60	49
3	East, West, and North-East Region	21 st October 2021	Mr Kannan, P, Scientist-E (LS) / Mr Pallab Pradhan, Scientist-C (LS)	75	60
4	North Region	22 nd October 2021	Mr Kannan, P, Scientist-E (LS) / Mr Pallab Pradhan, Scientist-C (LS)	52	47

Table 32: List of Region-wise Online IRINS Coordinator's Meeting 2021

9. INFLIBNET's Website Development and Maintenance

The Centre uses web technology to provide organized and structured access to its services and resources to the academic community through the Centre's Website. The Centre's Website is designed to work as an integrated interface for all services and resources accessible to the academic community in the universities and colleges. The Web Development Team has especially been set up for designing innovative web-based interfaces for effective and efficient delivery of services using the latest web-based tools and technologies. The Group undertakes all activities related to the

selection, organisation and presentation of services and resources in a meaningful way for the benefit of the user community.

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

The Centre maintains a comprehensive Website of its own in English and Hindi as shown in Fig. 65. Several new additions were made to the new version of the Institute's website. The responsive website of the Centre is developed with the latest web technologies such as HTML5, PHP, Bootstrap and jQuery. The new website of the Centre has the following main features:

- Powerful search and browse interface;
- Recent and new events;
- Download forms and documents;
- Mailing list, video gallery, webmail, etc.;
- Latest news, jobs, tenders, etc.;
- Minutes of Meeting of the Council, Governing Board and Finance Committee;
- Annual Reports, Newsletters (in PDF and Flipbook format); and
- Training Programme Calendar.



Fig. 65: INFLIBNET's Website

9.2. Intranet (<https://intranet.inflibnet.ac.in/>) for INFLIBNET Staff Only

A separate Intranet website is maintained for the internal staff of the Centre as shown in Figure 66. The website provides detailed information to scientists and staff of the Centre to fulfil the following requirement:

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

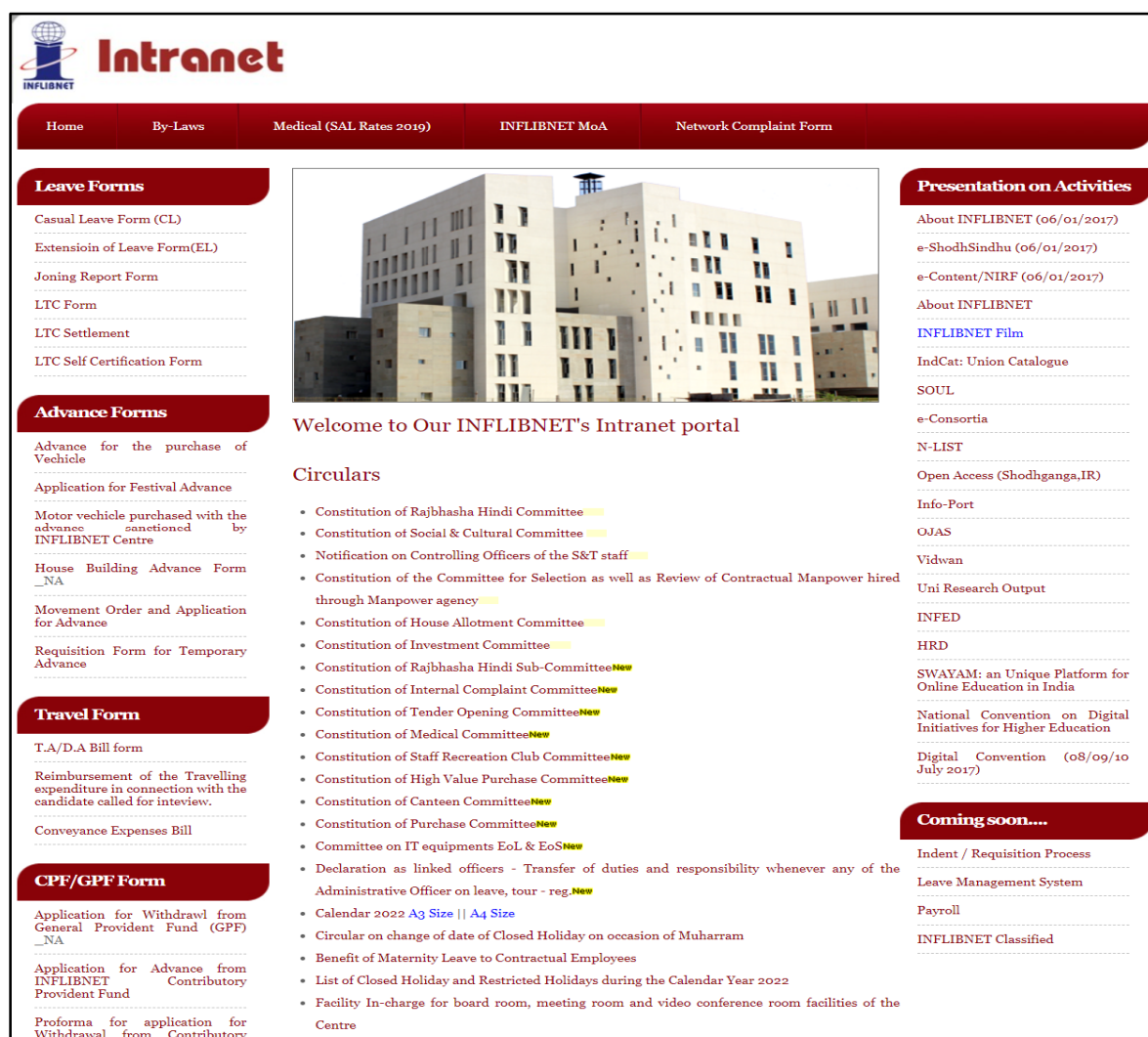


Fig. 66: INFLIBNET's INTRANET Website

9.3. IHRMS (INFLIBNET Human Resource Management System) (<https://hrm.inflibnet.ac.in/>)

The INFLIBNET Centre maintains an IHRMS Module (INFLIBNET Human Resource Management System), a web-based interface to facilitate routine administrative activities online as shown in Figure 67. It provides a dashboard showing all sub-functional modules as shown in Figure 68. Each employee has to log in with a password to get access to their profile to get into the dashboard. Many new features & functionalities were added into IHRMS as per the requirements that arose during the reported period. Currently, IHRMS facilitates the following:

Admin:

- EL, CL, RH, HPL (Employee's leave balance, leave application & approval process)
- Tour Approval
- Transport requisition
- User Leave Balance
- Attendance Certificate
- Out of Station

Purchase:

- View claims (Newspaper, medical, etc.)
- Requisition
- Newspaper claim
- Indent
- Asset Management

Finance / Accounts:

- View salary slip
- Form-16
- Investment Declaration History

Note Management:

- Office Note

Communication (Circulars/Notice)

Request/Issues/Note to admin

Download

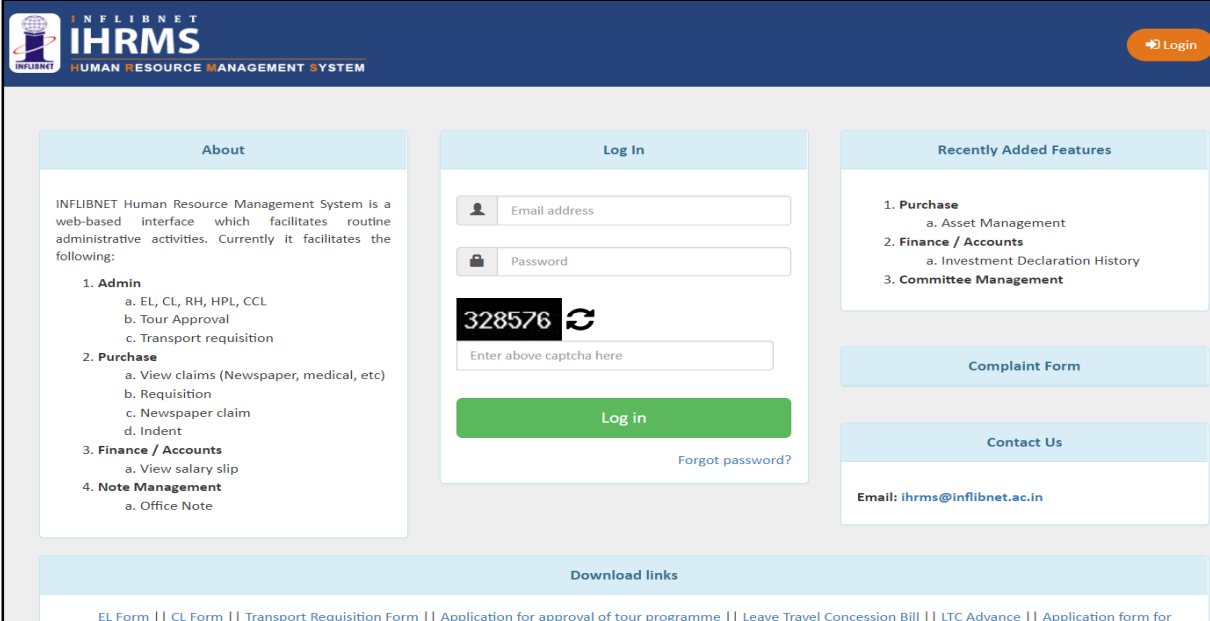
- Holiday Lists

Newsletter:

- Content submission

Committee List

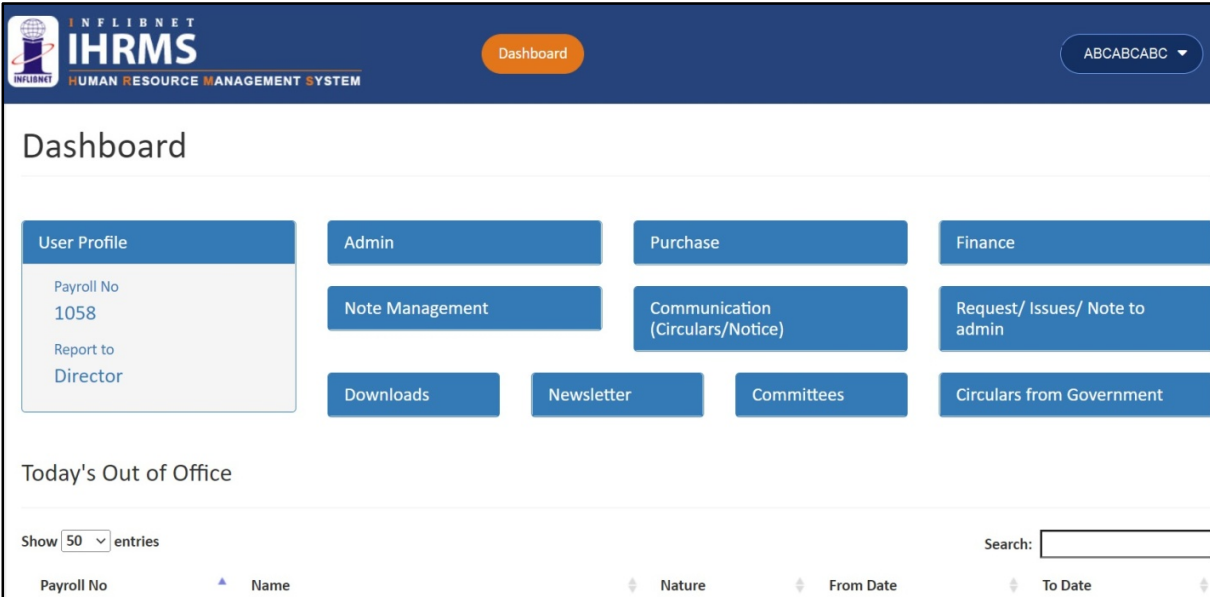
Circulars from Government



The screenshot shows the login page of the INFLIBNET Human Resource Management System (IHRMS). The header includes the INFLIBNET logo and the text 'IHRMS HUMAN RESOURCE MANAGEMENT SYSTEM'. A 'Login' button is in the top right corner. The main content area is divided into three columns: 'About', 'Log In', and 'Recently Added Features'. The 'About' section describes the system and lists features under four categories: Admin, Purchase, Finance / Accounts, and Note Management. The 'Log In' section contains fields for Email address, Password, a CAPTCHA (328576), and a 'Log in' button, with a 'Forgot password?' link. The 'Recently Added Features' section lists three items: Purchase (Asset Management), Finance / Accounts (Investment Declaration History), and Committee Management. Below these are links for 'Complaint Form' and 'Contact Us' (Email: ihrms@inflibnet.ac.in). A 'Download links' section at the bottom lists various forms like EL Form, CL Form, Transport Requisition Form, etc.

Fig.

67: INFLIBNET's IHRMS Interface



The screenshot shows the dashboard of the INFLIBNET Human Resource Management System (IHRMS). The header includes the INFLIBNET logo, the text 'IHRMS HUMAN RESOURCE MANAGEMENT SYSTEM', a 'Dashboard' button, and a user profile dropdown (ABCABCABC). The main content area is titled 'Dashboard' and features a 'User Profile' sidebar on the left showing 'Payroll No 1058' and 'Report to Director'. The main area contains a grid of buttons for various functions: Admin, Purchase, Finance, Note Management, Communication (Circulars/Notice), Request/ Issues/ Note to admin, Downloads, Newsletter, Committees, and Circulars from Government. Below this is a section titled 'Today's Out of Office' with a search bar and a table with columns: Payroll No, Name, Nature, From Date, and To Date. The table shows 50 entries.

Fig.

68: IHRMS's Dashboard

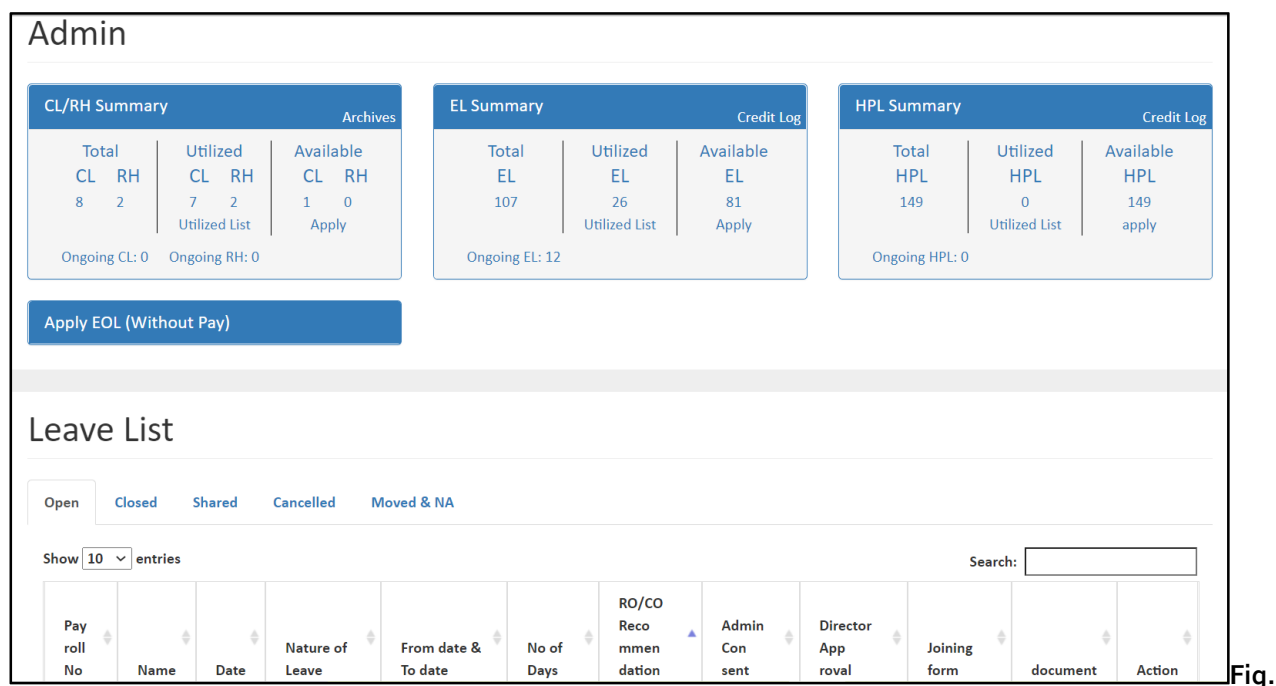


Fig. 69: A view of 'Admin' sub-functional Module in IHRMS's Dashboard

10. Web Applications Projects funded by the Ministry of Education, Government of India

The Centre is providing technical support to the Ministry of Education for their initiatives such as PMMMNMTT, Ek Bharat Shreshtha Bharat, Fit India and Unnat Bharat Abhiyan.



Fig. 70: Projects funded by the Ministry of Education, Government of India

10.1. Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)

The Centre has executed the scheme Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) where the scopes of work were design, development and hosting of the dedicated portal of PMMMNMTT.

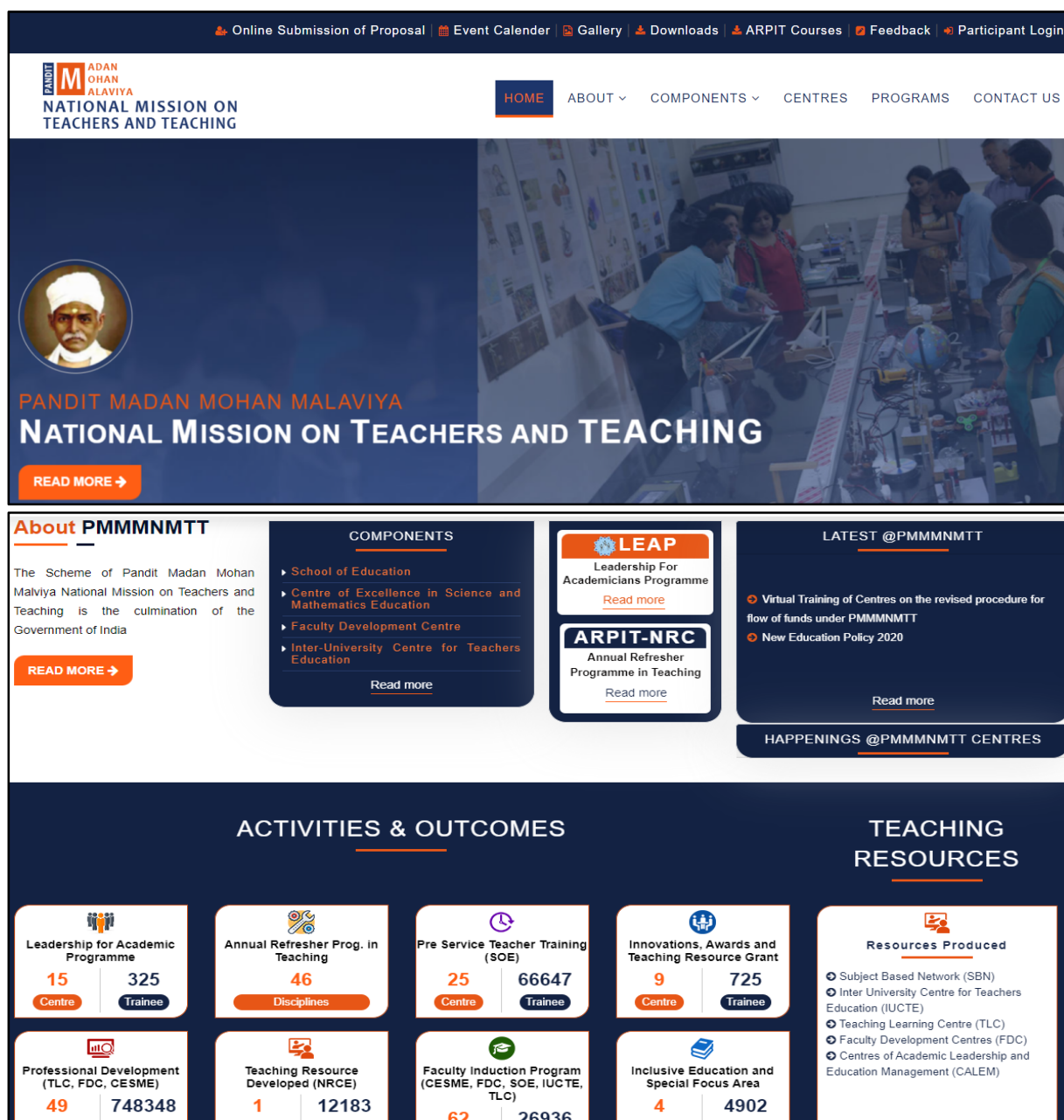


Fig. 71: Web Portal of PMMMNMTT along with its Activities & Outcomes Displayed

The Centre is working on this project and enabled the following features and functionalities for its different stakeholders:

- Portal: All information related to PMMMNMTT such as about scheme, list of Centres, program schedule, etc.,
- User/stakeholder of the different components: A dashboard for each component with the following activities:

- Centre / Component Management
- Profile Management
- Program Management
- Content Repository

10.2. Ek Bharat Shreshtha Bharat (EBSB) (www.ekbharat.gov.in)

The Ministry of Education assigned the task for the creation of a web portal of "Ek Bharat Shreshtha Bharat " to the INFLIBNET Centre. The Centre developed and maintained the dedicated portal of "Ek Bharat Shreshtha Bharat" including its hosting. The Centre has continued this project for this year also. Several new government departments were added to participate in EBSB.

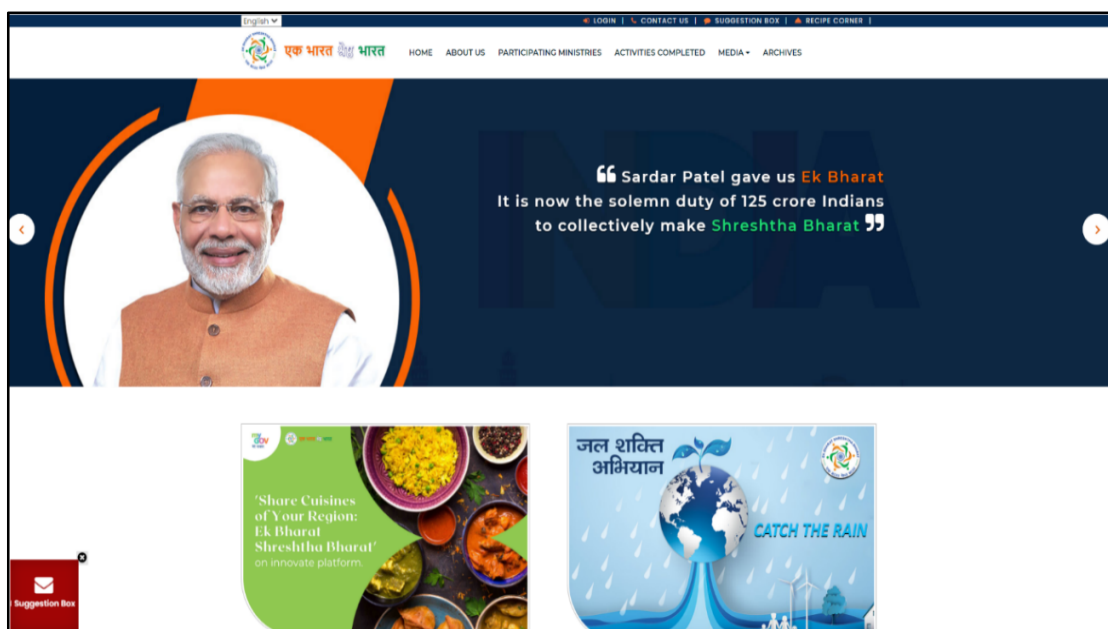


Fig. 72: Web Portal for Ek Bharat Shreshtha Bharat (EBSB)

The following development has been done under EK Bharat Shreshta Bharat:

- Creation of a different gallery for events/activities being organised by different States;
- Admin module to manage the content of paired states;
- Upload facility to all nodal officers of different states;
- New stakeholders were created;

The interface to cater to the activities details are developed by the Centre. Further, EBSB added/supported campaigns such as Bhasha Sangam, Azadi ka Amrit Mahotsav, Rangoli, Patriotic Poetry, etc.



Fig. 73: Activities Conducted under EBSB and Ongoing Campaigns

10.3. Fit India

The MoE assigned the task to design, develop and maintain a portal for the “Fit India Movement”, a Ministry of Education initiative to support the Fit India programme of the Government of India. The project has been assigned to the Centre for a period of 03 years or as per mutual understanding based upon requirements. Under this project, the Centre is doing the followings:

Website of Fit India

- Aesthetically designed portal with an intuitive web interface populated with relevant information
- Web applications to support dynamic maintenance of the portal
- Latest Event / upcoming event
- Search and browse interfaces

Institutional Module

- Online data upload system to facilitate information flow from participating institutions
- Dashboard for nodal officer
- Provision of action plan and activity report for each activity

- Photo gallery for each event
- Video gallery

Admin Module

- To manage users (nodal officer, etc.)
- Dashboard
- Upload features on behalf of the nodal officer, if required
- Analytical reports
- Communication system

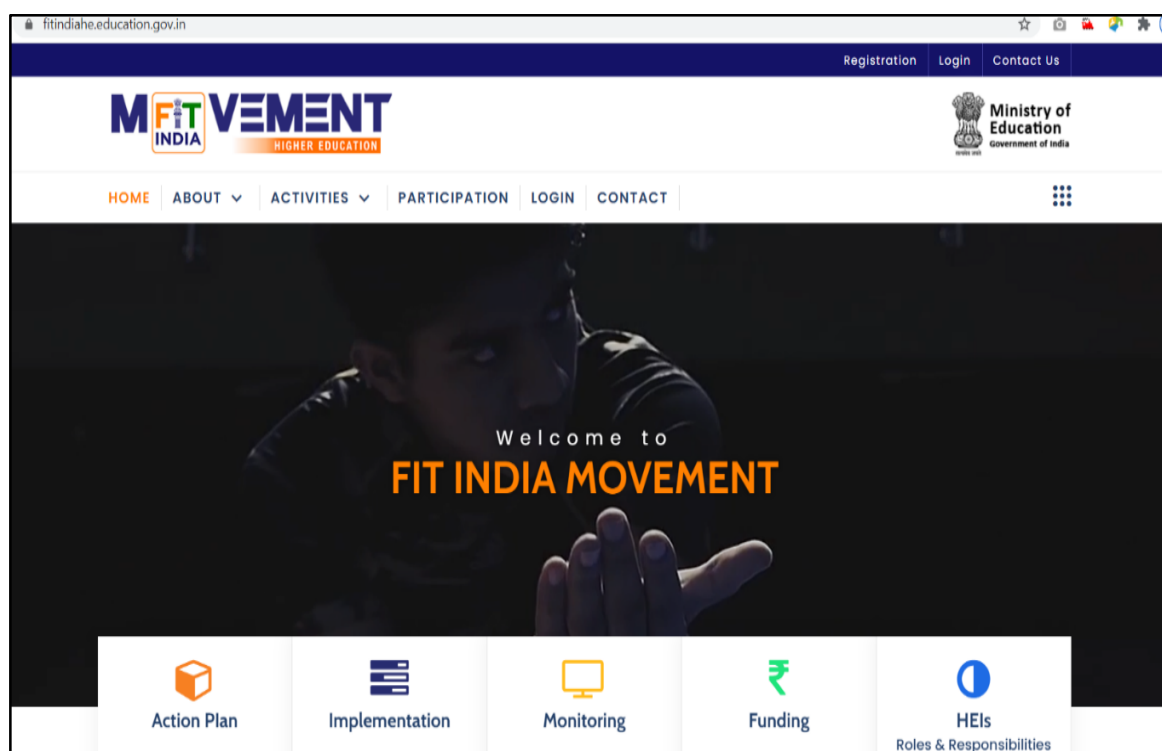


Fig. 74: Web Portal of Fit-India

10.4. Unnat Bharat Abhiyan

The Ministry of Education assigned the task to design, develop and maintain a portal for “Unnat Bharat Abhiyan”, a Ministry of Education initiative to support the Unnat Bharat of the Government of India. Under this project, the Centre is doing the followings:

Web application of Unnat Bharat Abhiyan

- Login/Registration Portal
- Admin dashboard to verify the applications and also can access various reports/statistics.
- Rank generation of the submitted applications.

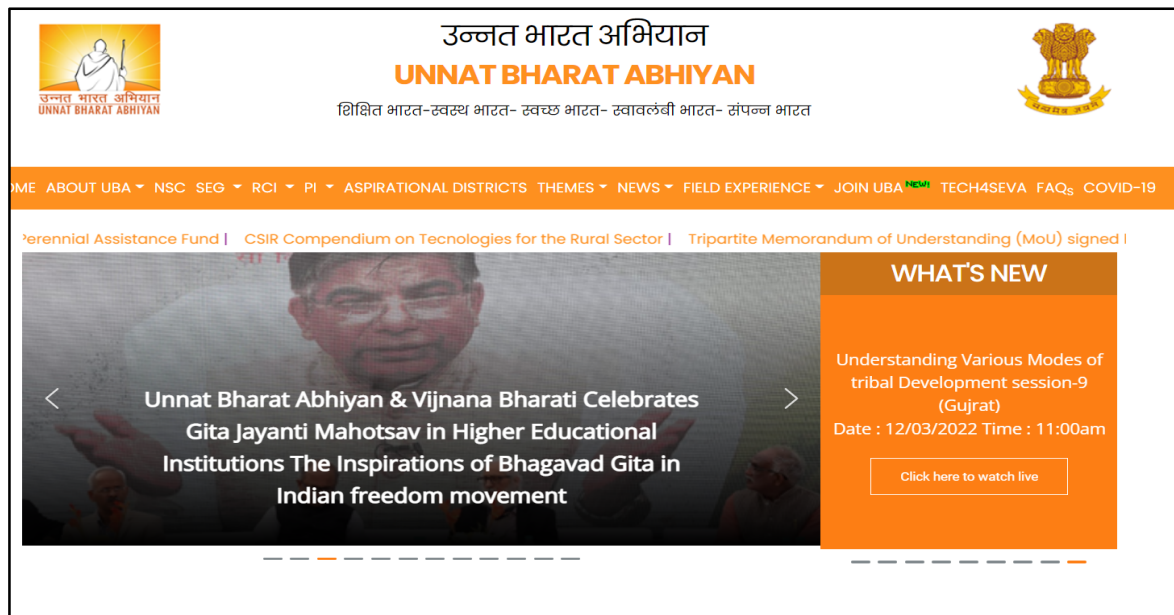


Fig. 75: Unnat Bharat Abhiyan

Unnat Bharat Abhiyan is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India.

11. e-Governance @ UGC

11.1. UGC Website

The INFLIBNET Centre has continued the development/maintenance work related to the website as well as automation of the University Grants Commission's various schemes along with hosting.

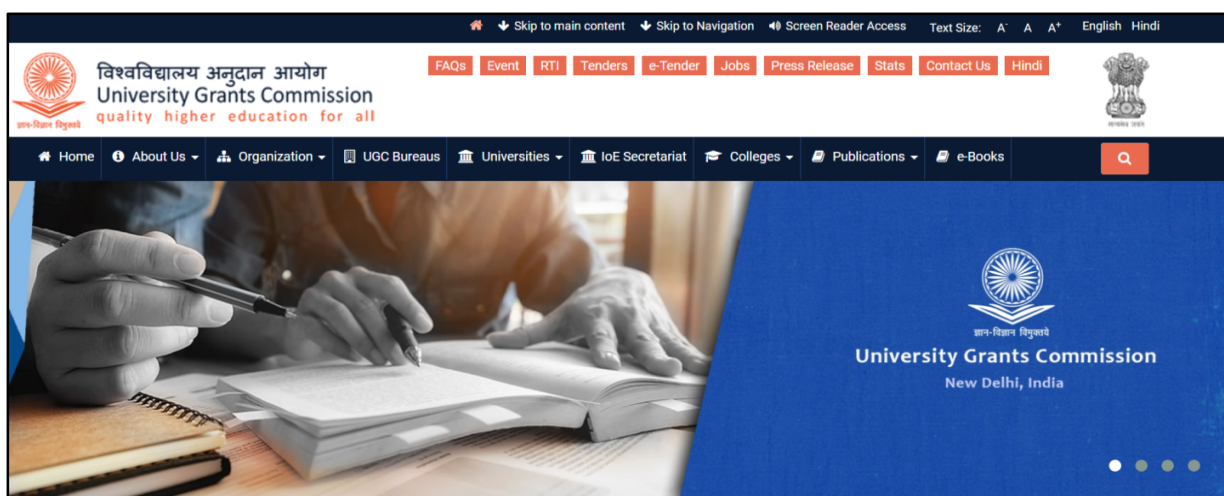


Fig. 76: Homepage of UGC

11.2. e-Governance @ UGC

The Centre has also been assigned the task of e-Governance activities for UGC, New Delhi. Besides, design and development the Centre is also providing hosting services to the University Grants Commission. Functioning of dedicated IT cell at UGC including physical infrastructure has been done by the Centre.

11.3. Automation of UGC Schemes

The Centre has continued to maintain 30+ online systems related to scholarships, fellowships as well as other schemes/web applications of the UGC.

11.4. Development of Web Portal for the UGC - Distance Education Bureau

The INFLIBNET Centre has developed a web portal for the Distance Education Bureau - University Grants Commission. The main aim of the portal is to automate all the UGC-DEB activities. The process related to the UGC-DEB including application, scrutiny of the applications, expert meeting, survey, etc. is being done using this platform.

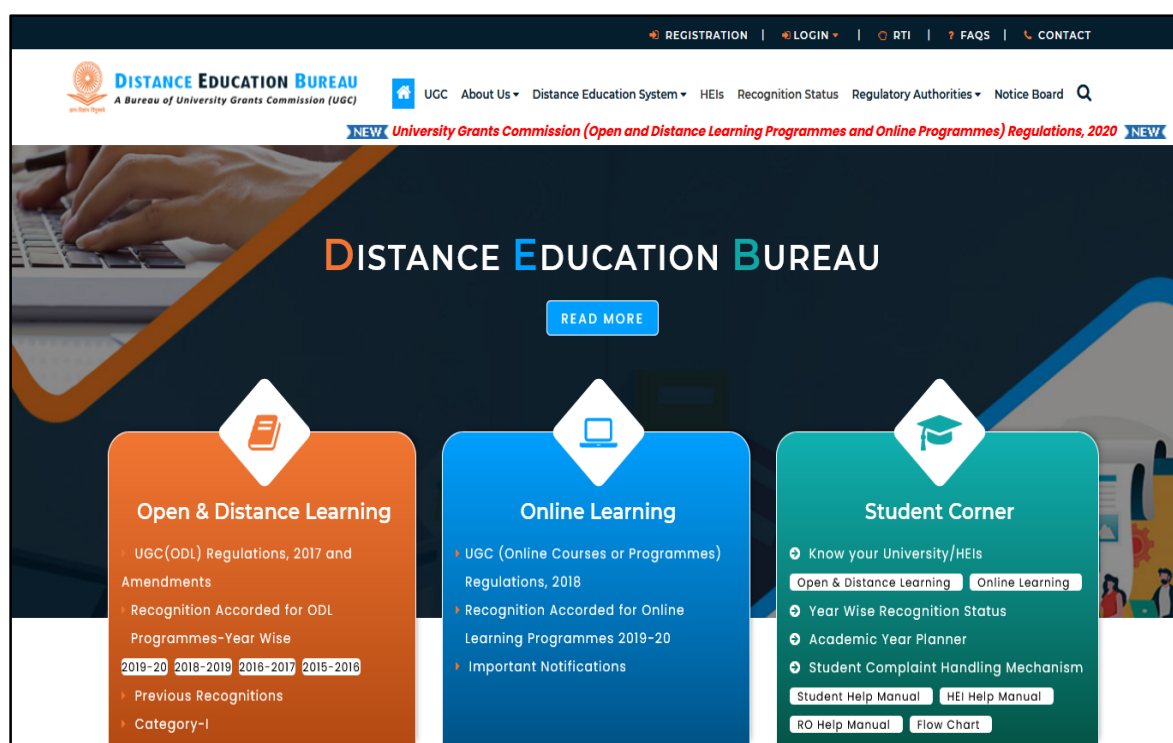


Fig. 77: Web Portal of Distance Education Bureau - University Grants Commission

12. Other Academic Projects

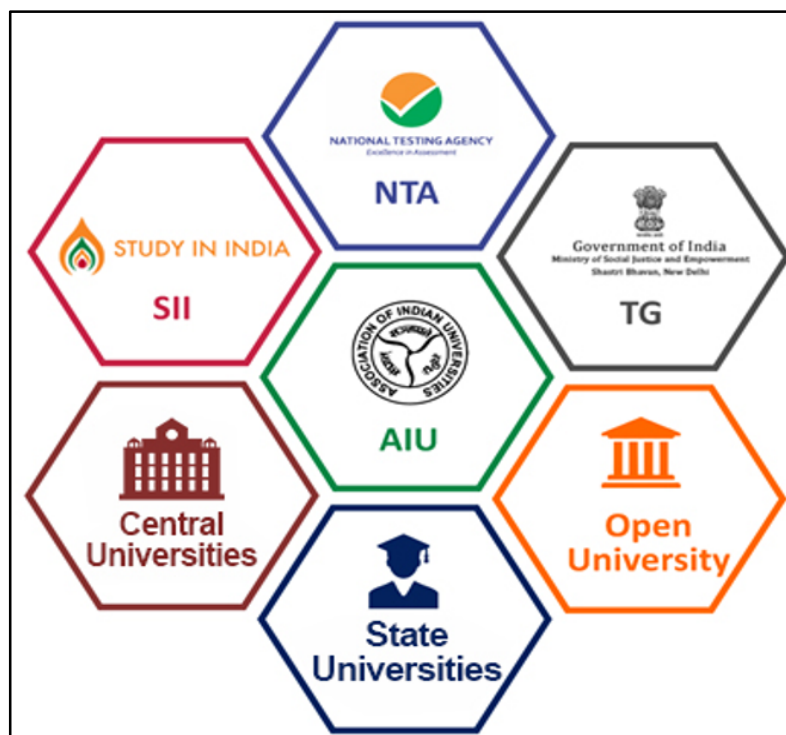


Fig. 78: Other Academic Projects

12.1. Study in India (SII) (www.studyinindia.gov.in)

The Centre has executed the yearly exercise of counselling and admission process for foreign students under the “Study in India” program. It is one of the important educational projects of the Ministry of Education which is being executed by the EdCIL & the INFLIBNET Centre. The Centre is the technical partner for designing & developing the website and its web applications & its hosting.



Fig. 79: Web Portal of Study in India

The INFLIBNET Centre has executed the following module of “Study in India” and successfully completed another exercise of Study in India:

- Updation in the website of SII,
- Institutional Module (online data capturing system to facilitate information flow from participating institutions, a dashboard for the nodal officer, statistics on counselling/admission,
- Learner Module (online registration of learners, courses offered [feature of choice-based filtration], dashboard), and
- Counselling module that includes counselling and a final admission matrix.

12.2. National Testing Agency (NTA) (<http://www.nta.ac.in>)

The Centre has been involved with the National Testing Agency (NTA) since 2018 and as proposed, the following activities were continued for the reported period.

Portal and its hosting & maintenance: To handle the Website dynamically through the admin panel for various updates and changes, Test Practice Centre Module, Admin Portal, Mock Test, Test Admin Portal, Exam Centre, TA Admin, Admit Card, and Exam Result.

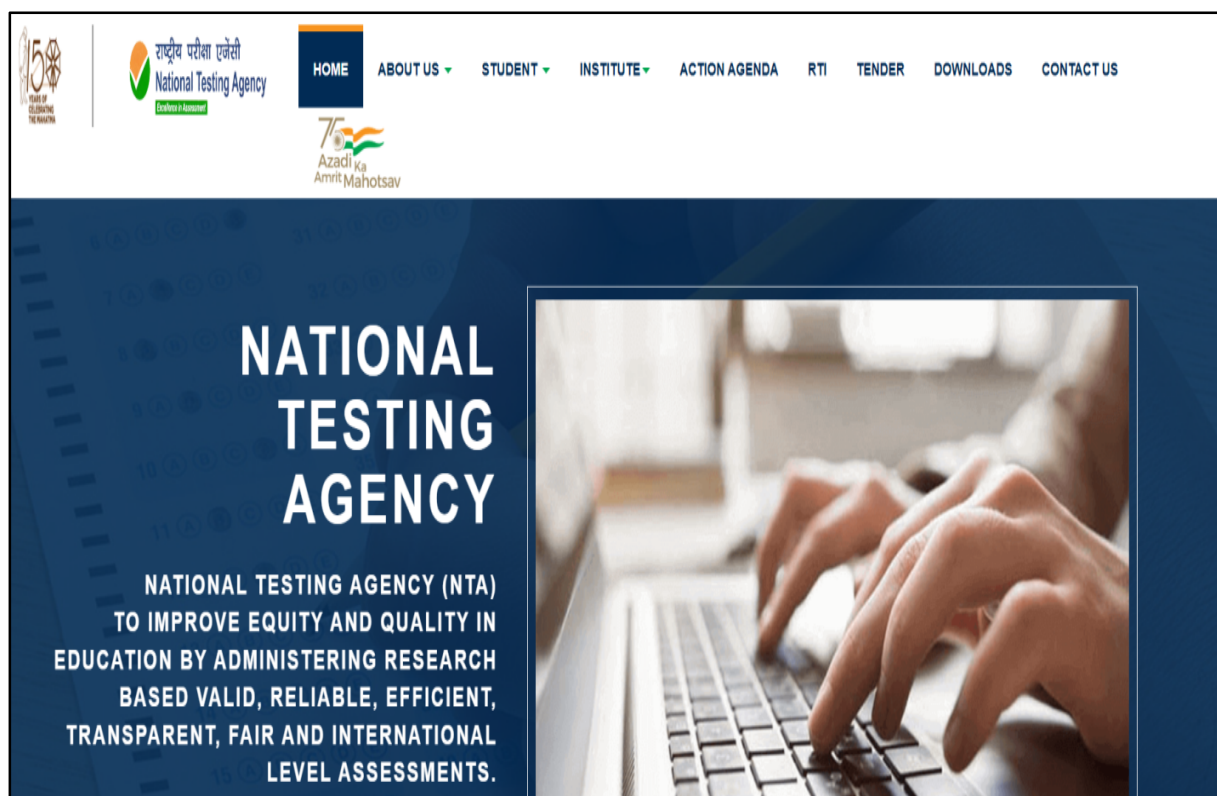


Fig. 8o: Website of National Testing Agency

12.3. National Portal for Transgender Persons (Ministry of Social Justice and Empowerment)

The 'National Portal for Transgender Persons' was developed by the INFLIBNET Centre for the Ministry of Social Justice and Empowerment, Govt of India. The portal "transgender.dosje.gov.in" enables a transgender person to apply for a certificate and identity card digitally from anywhere in the country, without having to visit any office. The most important benefit is that it helps the transgender person to get the I-Card without any physical interface and without having to visit any office. Through the Portal, they can track/monitor the status of their application and register their grievances in case of delays that ensuring transparency in the process as well.

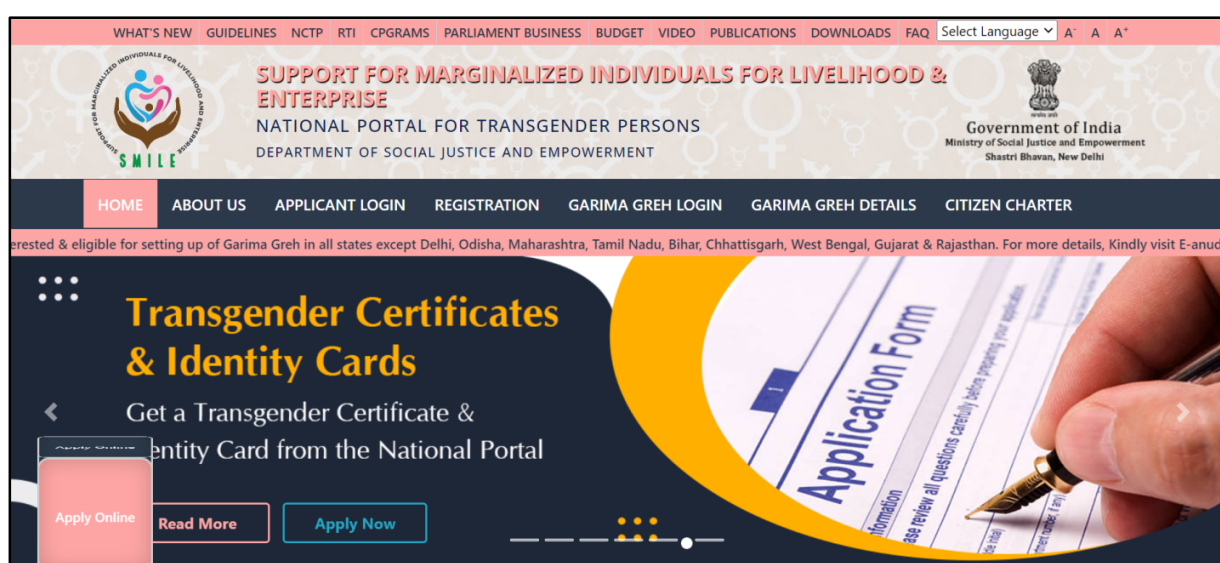


Fig. 81: National Portal for Transgender Persons

The Centre has signed MoU with the Ministry of Social Justice and Empowerment, Department of Social Justice and Empowerment, Government of India to computerize & automate the activities and processes of the "National Portal for Transgender Persons" so that it can function effectively and efficiently. The Centre is responsible for the design, development, hosting & maintenance of the transgender central portal.

12.3.1. Online Training Programs on National Portal for Transgender Persons

On the request from the Ministry of Social Justice & Empowerment, the Transgender & Beggary Division of the National Institute of Social Defence (NISD), the INFLIBNET Centre conducted online Training Programmes on National Portal for Transgender Persons for the District Magistrates/Collectors and concerned officials during the reporting period. The training programs aimed to sensitize the District Officials about the working of the portal and to clarify their doubts and technical issues related to the issuance of TG Certificates and ID Cards.

Sl. No.	Name of the Program	State	Date	Resource Person
1.	Online Awareness Program on Provisions of Transgender Persons (Protection of Rights) Act, 2019 including National Portal for TGs	NCT of Delhi	10.08.2021	Dr Abhishek Kumar INFLIBNET Centre
2.	Online Training on National Portal for TGs	Tamil Nadu and Puducherry	23.08.2021	Dr Abhishek Kumar INFLIBNET Centre
3.	Online Training on National Portal for TGs	Madhya Pradesh	25.08.2021	Dr Abhishek Kumar INFLIBNET Centre
4.	Online Training on National Portal for TGs	Andhra Pradesh	27.08.2021	Dr Abhishek Kumar INFLIBNET Centre
5.	Online Training on National Portal for TGs	Kerala	31.08.2021	Dr Abhishek Kumar INFLIBNET Centre
6.	Online Training on National Portal for TGs	Gujarat	02.09.2021	Dr Abhishek Kumar INFLIBNET Centre
7.	Online Training on National Portal for TGs	Odisha	02.09.2021	Dr Abhishek Kumar INFLIBNET Centre
8.	Online Training on National Portal for TGs	Maharashtra	08.09.2021	Dr Abhishek Kumar INFLIBNET Centre
9.	Online Training on National Portal for TGs	Bihar	13.09.2021	Dr Abhishek Kumar INFLIBNET Centre
10.	Online Training on National Portal for TGs	Chhattisgarh	15.09.2021	Dr Abhishek Kumar INFLIBNET Centre

11.	Online Training on National Portal for TGs	Telangana	17.09.2021	Dr Abhishek Kumar INFLIBNET Centre
12.	Online Training on National Portal for TGs	Uttarakhand	20.09.2021	Dr Abhishek Kumar INFLIBNET Centre
13.	Online Training on National Portal for TGs	Chandigarh and Manipur	22.09.2021	Dr Abhishek Kumar INFLIBNET Centre
14.	Online Training on National Portal for TGs	West Bengal	24.09.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
15.	Online Training on National Portal for TGs	Sikkim	27.09.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
16.	Online Training on National Portal for TGs	Uttar Pradesh	04.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
17.	Online Training on National Portal for TGs	Himachal Pradesh and Haryana	08.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
18.	Online Training on National Portal for TGs	Rajasthan	11.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
19.	Online Training on National Portal for TGs	Karnataka	18.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
20.	Online Training on National Portal for TGs	Jharkhand	21.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre

21.	Online Training on National Portal for TGs	West Bengal & Tripura	22.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
22.	Online Training on National Portal for TGs	Mizoram	27.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
23.	Online Training on National Portal for TGs	Nagaland	29.10.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
24.	Online Training on National Portal for TGs	Punjab	01.11.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
25.	Refresher Online Training on National Portal for TGs	Delhi	12.11.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
26.	Online Training on National Portal for TGs	Goa	15.11.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
27.	Online Training on National Portal for TGs	Assam	16.11.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
28.	Online Training on National Portal for TGs	Daman & Diu	22.11.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
29.	Online Training on National Portal for TGs	Meghalaya	02.12.2021	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre

30.	Refresher Training Program on National Portal as well as TG Act, 2019	West Bengal	04.02.2022	Dr Abhishek Kumar, INFLIBNET Centre
31.	Refresher Training Program on National Portal as well as TG Act, 2019	J&K and Ladakh	07.02.2022	Dr Abhishek Kumar, INFLIBNET Centre
32.	Refresher Training Program on National Portal as well as TG Act, 2019	Tamil Nadu	03.03.2022	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
33.	Refresher Training Program on National Portal as well as TG Act, 2019	Odisha	04.03.2022	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
34.	Refresher Training Program on National Portal as well as TG Act, 2019	Uttar Pradesh	08.03.2022	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre
35.	Refresher Training Program on National Portal as well as TG Act, 2019	Assam	15.03.2022	Sh. Suresh Manekar, Sr. Project Associate, INFLIBNET Centre

Table 33: Online Training Programs on National Portal for Transgender Persons

12.3.2. TAPAS: Training for Augmenting Productivity and Services (<https://tapas.dosje.gov.in/>)

The Centre has developed an Online Learning Management Platform called TAPAS: Training for Augmenting Productivity and Services for the online courses being offered by NISD.

Following are the courses:

- Course on Geriatric/Elderly Care,
- Course on Social Defence Issues,
- Course on Substance (Drug) Abuse Prevention,
- Course on Transgender Issues, and

➤ Care & Management of Dementia.



Fig. 82: NISD'e TAPAS Homepage

12.4. Activity Portal for Association of Indian Universities (AIU), New Delhi

The INFLIBNET Centre has developed an activity portal for the Association of Indian Universities (AIU). The AIU portal will provide value-added services to its members in terms of completely automating the equivalence of foreign degrees with Indian Universities. The portal will consist of several portals including the AIU equivalence portal, AIU admission portal, AIU job portal, AIU sports portal, and AIU collaboration portal. AIU admission portal will provide one-click information to the students regarding the academic programmes in the different universities while the AIU job portal will help in connecting job seekers with the vacancies available in the different universities, and the AIU collaboration portal will help universities to showcase their best departments for forging national and international collaborations. The Centre has continued the said activities for the AIU.

12.5. Technical Services to Indian Universities/Institutions

The INFLIBNET Centre is providing several technical services including website development, and web applications (i.e. recruitment system, admission system, etc.) to the different universities/institutions. Some of the stakeholders are the Central University of Gujarat, Gandhinagar; Jagat Guru Nanak Dev Punjab State Open University (JGNDPSOU), Patiala; Sri Sri Aniruddhadeva Sports University, Dibrugarh; Children University, Gandhinagar; Sardar Patel University, Vallabh Vidyanagar, Inter-University Centre of Teacher Education, Varanasi; and Doon University, Dehradun.

13. Human Resource Development, Capacity Building Programme & Consultancy

One of the important objectives of the Centre is to impart training in the use of ICT to library and information science professionals working in university and college libraries. Since its establishment, INFLIBNET Centre has been actively involved in various capacity-building programmes, i.e. in-house and off-site workshops, conferences, seminars, specialized training programs etc. To date, the Centre has trained 92,168 professionals through 877 such programmes. During the period under report, the Centre conducted 49 online short-term and long-term training programmes/workshops including webinars, awareness and other collaborative programmes that were attended by 8,039 participants. Table 34 given below provides no. of human resources development programmes conducted and no. of participants who benefitted from these programmes during the year 2021-22.

Sl. No.	Name of the Programme	Programmes	Total Participants
1	Online Long-Term Specialised Training Programme (Five & Three-Day)	04	435
2	Online Long-Term SOUL 3.0 Operations Training Programme (Five-Day)	13	457
3	Collaborative Specialized Training Programme	03	84
4	Online Short-Term Programme (Webinar)	07	1457
5	Regional Online Awareness Training Programme on N-LIST	07	2772
6	Regional Online Awareness Training Programme on PDS-ShodhShuddhi	15	2834
	Total	49	8039

Table 34: Training Programmes, Workshops and Webinars conducted by the INFLIBNET Centre during 2021-2022

14. Publications

The INFLIBNET Centre has two major publications, i.e. Quarterly INFLIBNET Newsletter and Annual Report. Both publications were brought out and distributed across all academic institutions in India. The copies of the INFLIBNET Newsletters and Annual Reports are downloadable in PDF format and the "Publications" on the INFLIBNET Centre website at <http://www.inflibnet.ac.in/publication/>. The copies of Annual Reports, 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 available in the IR of the Centre at <http://ir.inflibnet.ac.in>. A list of Publications including articles published in conference proceedings published by scientists and staff of the Centre is given below:

14.1. Papers Published in Journals, Newsletters and Conference Proceedings

1. Pandya, Miteshkumar Yashvadan, J. P. Singh Joorel, and Hiteshkumar Solanki. (2021). Research Productivity of Newly Established Central Universities in India. *Annals of Library and Information Studies (ALIS)* 68(1):67–74.
2. Solanki, H., Virparia, P. (2022). Conceptual Machine Learning Framework for Performance-Based Resource Allocation to the Institutions: A Hybrid Approach. In: Somani, A.K., Mundra, A., Doss, R., Bhattacharya, S. (Eds) *Smart Systems: Innovations in Computing. Smart Innovation, Systems and Technologies*, vol 235. Springer, Singapore. https://doi.org/10.1007/978-981-16-2877-1_20.
3. Pradhan, Pallab and Zala, Lavji N., "Bibliometrics Analysis and Comparison of Global Research Literatures on Research Data Management extracted from Scopus and Web of Science during 2000 - 2019" (2021). *Library Philosophy and Practice* (e-journal). 5519. <https://digitalcommons.unl.edu/libphilprac/5519>
4. Asnani, Roma Yogesh and Vyas, Priyanki (2022). Bibliometrics Analysis on Open and Distance Learning (ODL) through Scopus Database. In: 34th International Conference on New Directions of Academic Research Organized by Department of English, Bhakta Kavi Narsinh Mehta University, Junagadh in collaboration with Indian Association for Canadian Studies. 19th & 20th February 2022. (in Print)
5. Pradhan, Supriya; A, Subaveerapandiyan; and Nandhakumar, R, "A Study and Analysis of Manuscript Publications in the Open Access Journals" (2021). *Library Philosophy and Practice* (e-journal). 6241. <https://digitalcommons.unl.edu/libphilprac/6241>

15. Awards, Honours & Distinctions, and Lecture Delivered

Prof J P Singh Joorel, Director

During this reported period, Prof Joorel launched many programs, participated in online lectures, and delivered various lectures, keynote & inaugural addresses, and valedictory remarks with the following details:

- Visited Chettinad Dental College and Research Institute, Chennai for its accreditation as a Member of the NAAC Peer Team from 1st April to 2nd April 2021.
- Delivered an inaugural lecture as Chief Guest on "Emerging Tools and Research Areas in Applied Linguistics" in the International Faculty Development Programme on Recent Trends in Professional and Research Writings organized by Siksha 'O' Anusandhan University, Bhubaneswar, Odisha on 15th April 2021.
- Presented the progress of development and management of e-Governance project including implementation of e-office in UGC on 25th June 2021 at the UGC, New Delhi.

-
- Delivered an inaugural lecture as Chief Guest in the National Conference on “The Life: Biography and Literature” organized by Govt Degree College, Kalakote, J&K on 25th July 2021.
 - Nominated as a Member of UGC Expert Committee to Prepare Guidelines for Setting Up Research & Development Cell in HEIs and its first meeting on 22nd October 2021 at UGC, New Delhi.
 - Visited Achievers College of Commerce, Management, Night College, Kalyan, Mumbai, Maharashtra for its accreditation as Chairman, NAAC Peer Team on 26th – 27th October 2021.
 - Attended the Panel discussion organized by the Department of Library and Information Sciences, University of Delhi, Delhi on 28th October 2021.
 - Delivered keynote lecture in the International Conference jointly organized by the Department of LifeLong Learning, University of Rajasthan, Jaipur and Rajasthan Statistical Association on 13th November 2021.
 - Delivered a lecture on “Development of Higher Education in Modern India and Future Prospects” under Benchmark Lecture Series organized by IQAC, University of Rajasthan, Jaipur on 13th November 2021.
 - Delivered the inaugural address during “Two days Specialized Training Program on Research Ethics, PDS/ShodhShuddhi and INFED” for LIS Professionals of NIFT from 15th - 16th November 2021, organized by INFLIBNET Centre.
 - Attended the UGC Consultative Workshop on Developing Research Ecosystem and Setting up Research & Development Cell in Higher Education Institutions on 15th November 2021 at SGT University, Gurugram.
 - Delivered the inaugural address on IRINS during the launching of IRINS at Panjab University, Chandigarh on 15th November 2021.
 - Delivered the inaugural lecture at International Conference on “Recent Advancements In Information Technology” Organized by Scientific Information Resource Division Indira Gandhi Centre for Atomic Research, Kalpakkam on 24th November 2021.
 - Delivered a lecture on “Role of INFLIBNET in India’s Higher Education” in Faculty Induction Programme organized by UGC-Human Resource Development Centre, Jawaharlal Nehru University, New Delhi on 1st December 2021.
 - Delivered the keynote lecture as Chief Guest on “The Role of INFLIBNET in Quality Control Processes of HEIs” organized by Manav Rachna International Institute of Research and Studies, Faridabad on 31st December 2021.
 - Delivered the Inaugural address as Chief Guest during the launching of the INDIAN Access Management Federation (INFED) at Dr Hari Singh Gour Vishwavidyalaya, Sagar, Madhya Pradesh on 04th January 2022.
 - Nominated as a Member of UGC Expert Committee to Prepare Guidelines for Research Internship with Faculty and Researchers at HEIs for Implementation of National Education Policy-2020.
 - Visited the International Institute for Population Sciences, Mumbai, Maharashtra for its accreditation as Chairman, NAAC Peer Team from 02nd - 04th February 2022.
 - Delivered the valedictory address as Chief Guest during the FDP on “Information Sources and Services for Teaching, Learning and Research” organised by the UGC-HRDC, Panjab University, Chandigarh on 07th February 2022.

-
- Delivered an Inaugural address as Chief Guest in the National Conference on “Use of Artificial Intelligence in One Line Education” organized by the Department of Statistics, Saurashtra University, Rajkot on 25th February 2022.
 - Delivered the Inaugural address as Chief Guest in the UGC-Sponsored National Conference “Advanced Statistics and Applied Sciences” organised by the Department of Statistics, Ramanujan College, University of Delhi, New Delhi on 30th March 2022.

Mr Manoj Kumar K, Scientist-E (CS)

Mr Manoj Kumar K was invited as a resource person and delivered lectures with the following details:

- Delivered an online lecture on the topic ‘Admin Guide for University Coordinators (URSA account login)’ organized by Sree Narayana Guru Open University, Kerala on 28th May 2021.
- Visited Sree Narayana Guru Open University (SNGOU) University, Kerala at the request of the Vice-Chancellor, Prof P M Mubarak Pasha on 10th September 2021 and explained various services of the INFLIBNET Centre including the participation in Shodhganga & ShodhShuddhi.
- Visited Digital University Kerala (DUK) at the request of the Vice-Chancellor, Dr Saji Gopinath on 10th September 2021 and discussed the signing of MoU for Shodhganga & use of ShodhShuddhi, and the possibilities of collaboration with the INFLIBNET Centre for courses offered on online mode.
- Delivered a lecture to the participants on the topic ‘Data & Knowledge Contours in HEI - Opportunities & Challenges’ in the UNESCO's World Higher Education Conference-2022 organised by the SASTRA Deemed University, Tamilnadu in association with the Association of Indian Universities (AIU) on 23rd October 2021.
- Delivered a lecture on the topic ‘Address to students enrolled in UGC-Swayam MOOC course on Research Ethics’ at Gandhi Institute of Technology and Management (formerly GITAM University), Visakhapatnam on 19th November 2021.
- Delivered a lecture on the topic ‘INFLIBNET Resources’ at Dr V S Krishna Library, Andhra University, Visakhapatnam on the occasion of Library Week 2021 (14th to 20th November) Seminar on 18th November 2021.
- Delivered a lecture on the topic ‘URKUND Plagiarism Software’ for research scholars, faculty members and doctors at Yenepoya (Deemed to be University), Karnataka on 12th November 2021.
- Delivered a lecture as Speaker of Eminence on the topic ‘Research Methods and Ethics’ in the ‘Five-day online Faculty Development Program (FDP) on Research Methods and Ethics’ held from 21st - 25th February 2022, organised by The ICFAI University Jaipur in association with IEEE Rajasthan Sub-section, India on 25th February 2022.
- Delivered a lecture as Resource Person on the topic ‘Procedure for avoiding Plagiarism’ in the ‘Two Days Workshop on Writing Research Proposals and Papers & Publication (Virtual)’ held from 04th - 05th March 2022, organised by the Tamil Nadu National Law University on 04th March 2022.

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- Delivered the keynote address on the topic 'Research Ethics and Genuineness in Research' during the 'Festival of Research' held from 12th - 15th March 2022, organised by the Directorate of Research under the auspices of the University of Calicut on 12th March 2022.

Mr Yatrik Patel, Scientist-E (CS)

Mr Yatrik Patel was invited to deliver invited talks/lectures mentioned below:

- Delivered an online lecture on the topics 'Role of INFLIBNET towards Academic Community and Research Data Management' on 30th July 2021 during the 5th Online Faculty Induction Programme organised by UGC-Human Resource Development Centre, Sardar Patel University from 15th July 2021 to 13th August 2021.
- Delivered an online lecture on the topic "Introduction to Cloud Computing & Architecture" on 13th September 2021, during the FDP program on the topic of Advanced Cloud Computing Technologies and Its Benefits for Engineering College Faculties organized by AICTE.
- Delivered online lecture on the topic 'Role of INFLIBNET towards Academic Community on 17th September 2021 during Online Refresher Course in ITGS (Information technology in Global Society) organized by UGC HRDC, Gujarat University, Ahmedabad from 6th to 19th September 2021.
- Invited as a speaker by Prestige Institute of Management and Research for a webinar titled "Role of Libraries in Improving Quality at HEIs" on 23rd December 2021.
- Invited as a resource person for the "Certificate Course on Scientific Research Writing" and "Online Resources for HEIs by INFLIBNET and Overview of Plagiarism", organised by IQAC, Gujarat University, Ahmedabad from 31st January to 6th February 2022.

Dr Abhishek Kumar, Scientist-E (CS)

Dr Abhishek Kumar was invited to deliver the below-invited talks/lectures:

- Delivered an online lecture on the topic "e-Learning using MOOCs" on 12th May 2021 during webinars for all the HEIs organized by NAAC.
- Guest speaker for Faculty Development Program (National Webinar) on "e-Learning Using MOOCs" on 25th May 2021 organized by K.M. Shah Dental College & Hospital, Sumandeep Vidyapeeth (Deemed to be University), Vadodara.
- Delivered an online lecture-cum-demonstration session on "INFLIBNET Learning Management Service (ILMS) for the faculty of Central University of Gujarat, Gandhinagar on 4th June 2021.
- Delivered an online lecture on "INFLIBNET Learning Management Service (ILMS)" in the online training programme organized by Devi Ahilya Vishwavidyalaya, Indore on 30th April 2021.
- Delivered an online lecture-cum-demonstration session on "INFLIBNET Learning Management Service (ILMS) for the faculty of the Central University of Andhra Pradesh on 6th May 2021.
- Delivered an online lecture-cum-demonstration session on "INFLIBNET Learning Management Service (ILMS) for the faculty of Babasaheb Bhimrao Ambedkar University on 11th June 2021.

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- Delivered online lecture on the topic "Workshop on Introductory E-Learning" conducted by Central University of Odisha on 3rd July 2021.
 - Online talk on "Educational Innovations in e-Learning: MOOCs and OER Movement in India" for LIS professionals of the Central University of Haryana during Summer Training Programme 2021 of CUH on 20th July 2021.
 - Delivered two lectures (INFLIBNET services & e-Learning) during the online Faculty Induction Programme (Guru Dakshata) for University & College teachers organised by DAVV, UGC-HRDC on 25th July 2021.
 - Delivered lecture on "SWAYAMPRAKASH: for reaching the unreached through DTH" under AICTE-ATAL-FDP Scheme on 6th August 2021. FDP program was on "Harnessing Potential of Online Learning in Higher Education" organized by COE, IGNOU, New Delhi
 - Delivered two lectures (INFLIBNET services & e-Learning) during the online Faculty Induction Programme (Guru Dakshata) on 29th August 2021 for University & College teachers organized by DAVV, UGC-HRDC.
 - Delivered lecture on "Working with Major Cloud Service Provider" on 14th September 2021 under AICTE-ATAL-FDP Scheme. The FDP program was on "Advanced Cloud Computing Technologies and Its Benefits for Engineering College Faculties" organized by the INFLIBNET Centre.
 - Delivered lecture on "Role of INFLIBNET towards Academic Community in online Faculty Induction Programme V on 15th September 2021 for University & College teachers organized by HRDC-JNU.
 - Delivered online lecture on "INFLIBNET Services and e-Learning" during online Faculty Induction Programme organized by Sardar Patel University on 23rd & 24th September 2021.
 - Delivered two lectures (INFLIBNET services & e-Learning) in the online Faculty Induction Programme (Guru Dakshata) on 18th December 2021 for University & College teachers organized by UGC-HRDC, DAVV, Indore.
 - Delivered two lectures on INFLIBNET's services including e-Learning on 12th December 2021 as a resource person during the 8th Online Faculty Induction Programme conducted by UGC-HRDC, Sardar Patel University, Vidyanagar.
 - Keynote speaker during a workshop on SWAYAM titled "Awareness of MOOCs Courses" conducted by Jharkhand Rai University, Ranchi on 11th December 2021.
 - Delivered an invited lecture for enhancing the professional competence of University and College teachers in the "5th GURU DAKSHATA" - a Faculty Induction Programme organized by UGC-HRDC University of Allahabad for newly appointed faculty members on 20th November 2021.
 - Delivered a lecture on "Role of INFLIBNET towards Academic Research" during the 68th Online Refresher Course, organised by UGC-HRDC, Sardar Patel University, Vallabh Vidyanagar on 1st January 2022.
 - Delivered invited lectures as a distinguished expert & eminent speaker in the online interdisciplinary refresher course (RC-IDC) themed on "e-resources & ICT in Quality Teaching & Research", for enhancing the professional competence of the University and College teachers, organised by Jai Narain Vyas University, Jodhpur on 31st January 2022.

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- Delivered an online session on "Govt initiative towards e-Learning in Higher Education" during the "7-days Short Term Course (STC)/Faculty Development Programme (FDP) at Panjab University on 5th Feb 2022.
 - Delivered two lectures as a resource person on INFLIBNET's services including e-Learning during the 9th Online Faculty Induction Programme, conducted by UGC-HRDC, Sardar Patel University, Vallabh Vidyanagar on 5th Feb 2022.
 - Delivered an Orientation-cum-Technical Workshop session on the topic "Creating the MOOC - SWAYAM - NPTEL Courses" during the Two days 3rd International Conference on Sustainable Developments in Teacher Education & Library and Information Science (SDTELIS - 2022) held on the 25th and 26th March 2022, jointly organized by the Department of Education and Arjun Singh Library, Periyar Maniammai Institute of Science & Technology, (Deemed to be University), Thanjavur.

Dr H G Hosamani. Scientist D (LS)

Dr Hosamani was invited to deliver invited talks/lectures mentioned below:

- Invited to deliver an online talk on Role INFLIBNET for Higher Educational Institution with Special Reference to its e-resources on 18th August 2021 during an online Faculty Development Programme on "Strategies of Effective Library Use for 21st Century" organized by Ankushrao Tope College, Jalna, Maharashtra from 17th - 23rd August 2021.
- Invited to deliver an online talk on e-resources for colleges with special reference to N-LIST during an online User Orientation Workshop on NLIST and Library Management Software organized by Vinayakrao Patil Mahavidyalaya, Vaijapur, Maharashtra on 12th July 2021.
- Invited as a resource person to deliver an online talk on "Access to e-Resources under INFLIBNET Initiatives" during the Faculty Induction Programme from 1st to 31st March 2022, organized by the UGC-HRDC, Manipur University, Imphal on 23rd March 2022.

Dr. Kruti Trivedi, Scientist-D (LS)

Dr Kruti Trivedi was invited to deliver the below-invited talks/lectures:

- Invited as Resource Person for PhD course work at Indian Institute of Teacher Education (IITE) Gandhinagar.
- Delivered a lecture on "Databases and Research Metrics" at School of Liberal Studies, Pandit Deendayal Energy University on 30th April 2021.
- Delivered a lecture on the topic "Research Impact Metrics: Calculation and Context" on 7th May 2021 in a webinar organized by NAAC.
- Delivered a lecture on the topic "E-Resources in Academic Library" in the online refresher course in LIS organized by Sardar Patel University, Vallabh Vidyanagar on 17th September 2021.

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- Delivered online lectures on Awareness Programmes on Access to e-Resources under the NLIST Programme to NLIST College Members of the Gujarat region organized by KCG, Ahmedabad on 20th and 25th September 2021 respectively.
 - Delivered a lecture on the topic "Research Impact Metrics: Calculation and Context" and "Web of Science and Scopus" at the Indian Institute of Teacher Education (IITE), Gandhinagar on 5th December 2021.
 - Delivered a lecture on "VOSViewer" during the "Workshop on Agricultural Knowledge Management: New Age Open Source Tools and Techniques" at Tamil Nadu Veterinary and Animal Sciences University, Chennai on 4th March 2022.
 - Delivered a lecture on "Bibliometric Analysis" at the National Institute of Fashion Technology, Gandhinagar on 2nd March 2022.

Mr. Dinesh Ranjan Pradhan, Scientist-C (LS)

Mr Dinesh Ranjan Pradhan was invited as a resource person and delivered lectures with the following details:

- Delivered an online lecture on the topic "Open Access Publishing " at the Indian Institute of Teacher Education (IITE), Gandhinagar on 21st May 2021.
- Delivered a lecture on the topic "Open Access Publishing" at the Indian Institute of Teacher Education (IITE), Gandhinagar on 04th December 2021.

Dr Miteshkumar Pandya, Scientist-C (LS)

Dr Miteshkumar Pandya was invited to deliver the below-invited talks/lectures:

- Delivered an online lecture on 'Reference Management using Zotero and Report Writing in MS Word' in an online workshop organized by ABES Engineering College, Ghaziabad on 10th April 2021.
- Delivered two online lectures on 'Journal Finders and Publication Misconduct' in an online Two Credit Course on Research and Publication Ethics - PhD. Coursework for research scholars organized by Indian Institute of Teacher Education, Gandhinagar on 25th May 2021.
- Delivered an online lecture on 'Design and Development of online course content' in an online workshop organized by the Institute of Technology, Department of Civil Engineering & Department of Electrical Engineering, Nirma University, Ahmedabad on 30th June 2021.
- Attended Virtual Library Management Development Programme on "Contemporary Trends & Technologies in Library and Information Science" jointly organized by The CVM University, Vallabh Vidyanagar, Gujarat, Jio Institute, Mumbai, Maharashtra, and MANLIBNET, New Delhi from 13th – 17th September 2021.
- Delivered an online lecture on Streaming Research Publication and Improving Visibility and Citations on 20th September 2021 in One Week National Workshop on 'Research Promotion,

Visibility and Impact: Tools and Techniques' organized by Centre for Information Resource Management (CIRM), Kalyani University during 14th – 20th September 2021.

- Delivered an online lecture on 'Journal Finder and Publication Misconduct' in the PhD Course work for the research scholars organized by the Indian Institute of Teacher Education, Gandhinagar on 23rd October 2021.
- Delivered Two Online lectures on Scientific Conduct and Publication Ethics for PhD scholars organized by the Institute of Language Studies & Applied Social Sciences, CVM University, Vallabh Vidyanagar, Gujarat on 18th February 2022.
- Delivered an online lecture on Reference Management using Zotero and Report Writing in MS Word' in Faculty Development Programme at NIFT, Gandhinagar on 23rd February 2022.

Mr Hitesh Solanki, Scientist-C (CS)

Mr Hitesh Solanki was invited to deliver the below-invited talks/lectures:

- Delivered an Online lecture on "Awareness of VIDWAN-IRINS: Indian Research Information Management System – Web-based Service" during the Faculty Development Programme organized by the Faculty of Family and Community Sciences, The M S University of Baroda on 11th May 2021.
- Delivered an Online lecture on "Data Structure and Data Types in R" and "Data Visualization in R" during 15 days Online Faculty Development Programme on "Statistical Analysis using R Programming" in Collaboration with the Indian Teacher Education Society from 15th to 29th May 2021
- Delivered an online lecture on "RMarkdown: Authoring Framework for Scholarly Communication" during Online Refresher Course in Chemistry organized by The UGC-Human Resource Development Centre (HRDC), Sambalpur University, Burla, Odisha on 23rd July 2021
- Delivered an online awareness session on Vidwan-IRINS organized by AISSMS College of Engineering, Pune on 04th October 2021.
- Delivered an online session on "One Sample and Two Sample test using R" in an Online ATAL Faculty Development Programme on "Data Analysis using R" organized by Babasaheb Bhimrao Ambedkar University, Lucknow during 25th - 29th October 2021.
- Mr Solanki presented his research work entitled "Research Output Prediction of Engineering Institutions in India: A Supervised Machine Learning Model" at the International Virtual Conference on Emerging Era of Applications of Computer, organized by the Department of PG Studies and Department of Computer Science & Engineering, Pacific Academy of Higher Education and Research University, Udaipur held during 15th to 16th January 2022. He was awarded as Young Scientist for Best Oral Presentation at the Conference.

Mr Pallab Pradhan, Scientist-C (LS)

Mr Pallab Pradhan was invited to deliver invited talks/lectures mentioned below:

- Delivered a session on the topic of "Indexing Databases and Matrices" during the PhD programme on "Research Publications and Ethics" on 29th May 2021 at Charutar Vidya Mandal University (CVM University), Vallabh Vidyanagar, Gujarat.
- Delivered two consecutive sessions as a resource person on the topics 'Citation Databases and Research Metrics', and 'Research Writing with Reference Management Tool-Mendeley' on 12th November 2021 in the Online Faculty Induction Programme conducted by the UGC-HRDC, Sambalpur University, Jyoti Vihar, Burla, Odisha from 1st - 28th November 2021.
- Delivered one session as a resource person on the topic 'Research Writing with Reference Management Tool-Mendeley' on 9th December 2021 in the Online Refresher Course in Chemistry conducted by the UGC-HRDC, Sambalpur University, Jyoti Vihar, Burla, Odisha from 2nd - 15th December 2021.
- Delivered an online guest lecture on Research Data Management, and Reference Management tools on 29th December 2021 for the LLM Batch of Gujarat Maritime University, Gandhinagar.
- Delivered an online lecture as a resource person on "E-resource Efficacy for Research" in the Course Work for PhD Scholars on Legal and Interdisciplinary Research at Gujarat National Law University (GNLU), Gandhinagar on 31st January 2022.
- Delivered online sessions as a resource person on the topic "Research Ethics, Publication Misconduct & Plagiarism, Use of Plagiarism Software: Ouriginal (Urkund), and Citation Databases and Matrices" for the course titled "Research Publications and Ethics" for the PhD programme at ILSASS, Charutar Vidya Mandal University (CVM University), Vallabh Vidyanagar on 12th February 2022.
- Delivered a lecture as a resource person on "Research Integrity, Ethics and Anti Plagiarism Rules" during Phase-II: Course Work for PhD Scholars held from 9th March - 13th March 2022 at Gujarat National Law University (GNLU), Gandhinagar, Gujarat on 10th March 2022.

Mr Raja V, Scientist-C (CS)

Mr Raja was invited to deliver invited talks/lectures mentioned below:

- Delivered a talk on Recent Emerging Technology Concepts (Cloud) at Karnavati University, Ahmedabad on 2nd March 2022.
- Delivered an online talk on Higher Education Services offered by the INFLIBNET Centre at Government Arts College, Karur on 16th March 2022.

Dr Surbhi, Scientist-C (LS)

Dr Surbi was invited as a resource person for delivering hands-on training on "Overview and Workflow of Shodhganga" at the Central Library, University of Delhi, Delhi from 10th to 11th March 2022.

Mr Dharmesh Shah, Scientist B (CS)

Mr Dharmesh Shah was invited to deliver invited talks/lectures mentioned below:

- Delivered a session (120 minutes) on the ATAL FDP program of AICTE on the topic of "Live Demonstration of Application Deployment over Cloud" on 17th September 2021 through online mode.

Dr Roma Yogesh Asnani, STO (LS)

Dr Roma Yogesh Asnani was invited as a resource person and delivered lectures with the following details:

- Delivered online lectures on the College Administration Module under the NLIST Programme to NLIST College Members of the Gujarat region organized by KCG, Ahmedabad on 20th and 25th September 2021 respectively.
- Delivered an online lecture on the College Administration Module under the NLIST Programme to NLIST colleges Members of the Jharkhand region organized by RUSA, Jharkhand on 17th December 2021.

PART – III

National & International Conferences, Workshops, Seminars and Training Programmes

1. Training Programmes on SOUL 3.0: Installation and Operations

The INFLIBNET Centre has taken initiatives to conduct short- and long-term online training programmes due to the pandemic situation of Covid-19 across the country. In this connection, 13 Online Training Programmes on the Installation and Operations of SOUL 3.0 were conducted by the INFLIBNET Centre. The training programmes were announced on the website through the HRD portal and emails were sent to SOUL users. The online theory sessions were conducted through Google Meet. A total of 457 participants attended the training programmes.

Name of the Programme	Date	No. of Participants
8 th Online Training Programme on SOUL 3.0: Installation and Operations	31 st May - 04 th June 2021	70
9 th Online Training Programme on SOUL 3.0: Installation and Operations	14 th - 18 th June 2021	54
10 th Online Training Programme on SOUL 3.0: Installation and Operations	5 th - 9 th July 2021	33
11 th Online Training Programme on SOUL 3.0: Installation and Operations	12 th - 16 th July 2021	12
12 th Online Training Programme on SOUL 3.0: Installation and Operations	26 th - 30 th July 2021	24
13 th Online Training Programme on SOUL 3.0: Installation and Operations	9 th - 13 th August 2021	31
14 th Online Training Programme on SOUL 3.0: Installation and Operations	13 th -17 th September 2021	35
15 th Online Training Programme on SOUL 3.0: Installation and Operations	4 th - 8 th October 2021	41
16 th Online Training Programme on SOUL 3.0: Installation and Operations	22 th - 26 th November 2021	28
17 th Online Training Programme on SOUL 3.0: Installation and Operations	13 th - 17 th December 2021	27
18 th Online Training Programme on SOUL 3.0: Installation and Operations	31 st January - 4 th February 2022	41
19 th Online Training Programme on SOUL 3.0: Installation and Operations	21 st - 25 th February 2021	46
20 th Online Training Programme on SOUL 3.0: Installation and Operations	21st - 25 th March 2022	15

Table 35: List of Online Programmes on SOUL 3.0 conducted by the INFLIBNET Centre

2. Pan-India State Level Programmes on PDS-ShodhShuddhi

During the reported period, 15 planned State Level Online Awareness Programmes on PDS-ShodhShuddhi were organized in June 2021 by the INFLIBNET Centre, Gandhinagar. Mr Manoj Kumar K, Scientist-E (CS) and Dr Suboohi Siddiqui, Scientist-B (LS) coordinated the programme with the support of M/s. eGalactic Team. The Universities that have not signed MoU for Shodhganga yet as well as not using PDS were identified during the programmes. About 2,834 participants attended the awareness programmes.

Sl. No.	States	Date	Resource Person	Registration	Attendees
1	North-East States (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim)	16 th June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	619	273
2	Uttar Pradesh	18 th June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	641	212
3	Madhya Pradesh	21 st June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	118	40
4	Kerala and Tamilnadu	23 rd June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	811	250
5	Maharashtra	25 th June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	1079	398
6	Karnataka & Goa	28 th June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	502	182
7	Andhra Pradesh & Telangana	30 th June 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	303	83

8	Odisha & Chhattisgarh	2 nd July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	211	67
9	Gujarat	5 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	923	320
10	Jharkhand & Bihar	7 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	185	84
11	Haryana & Delhi	9 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	613	203
12	West Bengal	12 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	572	204
13	Rajasthan	14 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	462	125
14	Punjab, J&K and Ladakh	16 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	302	203
15	Himachal Pradesh and Uttarakhand	19 th July 2021	Mr Manoj Kumar K, Scientist-E (CS) & Dr Suboohi Siddiqui, Scientist-B (LS)	506	190

Table 36: State-wise Registrations/Participants details in the Pan-India State Level Programmes on PDS-ShodhShuddhi conducted by the INFLIBNET Centre

3. Region-wise Online Awareness Programmes on N-LIST

The INFLIBNET Centre organized 07 region-wise Online Awareness Programmes on Access to e-Resources under N-LIST for all College Members for increasing the effective use of e-resources provided by N-LIST during the reported period. A total of 2,772 participants attended the awareness programmes.

State/Region	States Covered	Date	Resource Person	No. of Registration	No. of Attendees
Southern Eastern Region	Andhra Pradesh, Puducherry, Andaman & Nicobar and Tamil Nadu, Telangana	11 th June 2021	Mr Ashok Kumar Rai, Scientist-E (CS)	2027	794
Western Region	Maharashtra, Gujarat, Goa, Dadra & Nagar Haveli, Daman and Diu	25 th June 2021	Mr Ashok Kumar Rai, Scientist-E (CS)	1298	275
Central Region	Chhattisgarh, Madhya Pradesh and Rajasthan	09 th July 2021	Mr Ashok Kumar Rai, Scientist-E (CS)	1502	471
Northern Region	Jammu & Kashmir, Himachal Pradesh, Punjab, Chandigarh, Haryana, Uttar Pradesh, Ladakh, Delhi and Uttarakhand	23 rd July 2021	Dr Kruti Trivedi, Scientist-D (LS)	1146	300
North-Eastern Region	Assam, Meghalaya, Mizoram, Manipur, Tripura, Arunachal Pradesh and Nagaland	06 th August 2021	Mr Ashok Kumar Rai, Scientist-E (CS)	918	284
Eastern Region	West Bengal, Bihar, Orissa and Sikkim	27 th August 2021	Mr Dinesh Ranjan Pradhan, Scientist-C (LS)	926	226
South-Western Region	Kerala, Karnataka and Lakshadweep	08 th September 2021	Dr Kruti Trivedi, Scientist-D (LS)	1565	422

Table 37: List of Online Awareness Programmes conducted on Access to e-Resources under N-LIST for all College Members

4. Short-Term Online Webinars

The INFLIBNET Centre organized 07 short-term Online Webinars for Universities and colleges during the reported period. The short-term Online Webinars were announced on the INFLIBNET Centre's HRD portal and different Social Media platforms for its broader outreach.

Sl. No	Dates	Name of online Webinar	Resource Persons	No. of Registration	No. of Attendees
1	30 th April 2021	N-LIST Administration Module	Mrs Roma Asnani, STO (LS)	610	281
2	20 th May 2021	Overview of INFLIBNET's IndCat and OCS	Mrs Vaishali Shah, Scientist-C (LS)	33	22
3	15 th June 2021	Roles & Privileges of University Coordinators in Shodhganga	Dr Suboohi Siddiqui, Scientist-B (LS)	373	180
4	17 th June 2021	N-LIST Administration Module	Mrs Roma Asnani, STO (LS)	600	307
5	17 th June 2021	Research Data Management	Mr Yatrik Patel, Scientist-E (CS) and Mr Divyakant Vaghela, Scientist-C (CS)	105	43
6	8 th February 2022	Shodhganga for University Coordinators/Library Professionals from CFTIs/INIs	Dr Surbhi, Scientist-C (LS)	610	241
7	9 th February 2022	N-LIST College Administration Module	Mrs Roma Asnani, STO (LS)		383

Table 38: List of Short-Term Online Webinars organized by INFLIBNET Centre

5. INFLIBNET Online Training Programmes

5.1. Five-day Online Training Programme on “Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools and Altmetrics”, INFLIBNET Centre, Gandhinagar, 5th - 9th April 2021

The INFLIBNET Centre organized a Five-day Online Training Programme on “Research Methodology and Ethics: Plagiarism Issues Reference Management Tools and Altmetrics” from 5th to 9th April 2021. Mr Manoj Kumar K, Scientist-E (CS) and Dr Suboohi S, Scientist-B (LS), INFLIBNET Centre coordinated the programme. The programme was inaugurated by Hon’ble Director, Prof J P Singh Joorel, INFLIBNET Centre. A total of 282 participants attended the training programme. The following topics were covered in the programme:

Topics	Name of the Experts
Introduction to Research Ethics and Academic Honesty & Plagiarism Issues	Mr Manoj Kumar K, Scientist-E (CS) and Dr Suboohi S, Scientist-B (LS), INFLIBNET Centre
Qualitative Academic Writing and Publications	Prof Sangita Gupta, Head, DLIS, University of Jammu
Research Methodology and Planning of Research	Prof N D Mathur, Professor and Director, Department of Economics School of Humanities & Social Sciences, Manipal University Jaipur
Use of Reference Management Tools: Mendeley, Zotero	Dr Miteshkumar Pandya, Scientist-C (LS), INFLIBNET Centre
Assessing and Evaluating Research Performance using Bibliometric Indicators	Dr Kruti Trivedi, Scientist-D (LS), INFLIBNET Centre
Demo of PDS- Ouriginal (Formerly URKUND)	Ms Prity Rathi M/S eGalatics, Pune
Statistical Methods for Research & Data Analysis using R	Dr Raju Choudhary, Associate Professor, Dept. of Statistics M.G. Science Institute, Ahmedabad
Use of Plagiarism Detection Software and ShodhShuddhi	Dr Suboohi Siddiqui, Scientist-B (LS), INFLIBNET Centre

IRINS: Web-based Research Information Management (RIM) System & An overview of (ORCID)	Mr Kannan P, Scientist-E (LS), INFLIBNET Centre
Altmetrics: An Overview	Mr Pallab Pradhan, Scientist-C (LS), INFLIBNET Centre

Table 39: Details of lectures during the Online Training Programme

5.2. Three-Day Online Training Programme on “Creation and Management of Digital Library using Open-Source Software”, INFLIBNET Centre, Gandhinagar, 21st - 23rd June 2021

A Three-Day Online Training Programme on Creation and Management of Digital Library using Open-Source Software was organised by INFLIBNET Centre, Gandhinagar from 21st to 23rd June 2021. Mr Yatrik Patel, Scientist-E (CS), Mr Swapnil Patel, Scientist-C (CS) and Mr Vijay Shrimali, STO-I (CS) coordinated the programme. A total of 27 participants attended the programme. The following topics were covered in the programme:

Topics	Name of Experts
Introduction to Open-Source Software and Linux Basic Commands (Theory)	Mr Divyakant Vaghela, Scientist-C (CS)
Institutional Repositories using DSpace (Theory)	Mr Yatrik Patel, Scientist-E (CS)
Metadata Standards for Digital Collections (Theory)	Dr H G Hosamani, Scientist-D (LS)
DSpace Administration and Workflow Submission (Theory and Demonstration)	Mr Vijay Shrimali, STO-I (CS)
DSpace Customization (Theory and Demonstration)	Mr Swapnil Patel, Scientist-C (CS)
DSpace Backup, Import-Export (Theory and Demonstration)	Mr Swapnil Patel, Scientist-C (CS)

Table 40: Details of lectures during the Online Training Programme

5.3. Three-day Online Training Programme on Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools and Altmetrics, INFLIBNET Centre, Gandhinagar, 21st - 23rd February 2022

The INFLIBNET Centre organized a three-day Online Training Programme on Research Methodology and Ethics: Plagiarism Issues, Reference Management Tools, and Altmetrics from 21st to 23rd February 2022. Prof J P Singh Joorel, Hon'ble Director, INFLIBNET Centre inaugurated the programme in the august presence of University Coordinators of Shodhganga & ShodhShuddhi, research scholars, and library professionals from various Universities and institutions across India. In his inaugural address, he highlighted the UGC Regulation 2018, Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions, and requested all the participants to create awareness among the research scholars to promote academic integrity and prevention of misconduct of plagiarism. He also informed the participants about the latest Notification issued by UGC to all the INIs/CFTIs and Universities for uploading the full-text theses in Shodhganga which are linked with NIRF ranking. Mr Manoj Kumar K welcomed the participants with a brief overview of the programme and informed them about the landmark UGC Notifications regarding the submission of the electronic version of theses and dissertations to Shodhganga. He also talked about the research ethics/academic honesty & plagiarism issues.

Mr Manoj Kumar K, Scientist-E (CS), Dr Surbhi, Scientist-C (LS), and Mr Rajan Kumar, Scientist-B (LS) coordinated the programme along with the Shodhganga team. A total of 97 participants attended the programme. Dr Surbhi, Scientist-C (LS) at the end proposed a vote of thanks to the participants and Mr Rajan Kumar, Scientist-B (LS) gave the closing remarks to the participants.

The following topics were covered in this programme.

Topics	Name of the Experts
Introduction to Research Ethics/Academic Honesty & Plagiarism Issues	Mr Manoj Kumar K, Scientist-E (CS)
Use of Reference Management Tools: Mendeley, Zotero	Dr Miteshkumar Pandya, Scientist-C (LS)
Statistical Methods for Research & Data Analysis using R	Dr R. D. Chaudhari, M.G. Science Institute, Ahmedabad
IRINS is web-based Research Information Management (RIM) & An overview of (ORCID)	Mr Kannan P, Scientist-E (LS)
Assessing and Evaluating Research Performance using Bibliometric Indicators	Dr Kruti Trivedi, Scientist-D (LS)
Altmetrics: An Overview	Mr Pallab Pradhan, Scientist-C (LS)

Overview of Shodhganga and ShodhShuddhi	Dr Surbhi, Scientist-C (LS)
Overview of OURIGINAL Software	OURIGINAL Team

Table 41: Details of lectures during the Training Programme

5.4. Three-Day Online Training Programme on "Creation and Management of Digital Library using OpenSource Software", INFLIBNET Centre, Gandhinagar 14th - 16th March 2022

A Three-Day Online Training Programme on Creation and Management of Digital Library using Open Source Software was organised by the INFLIBNET Centre, Gandhinagar from 14th to 16th March 2022. Mr Yatrik Patel, Scientist-E (CS), Mr Swapnil Patel, Scientist-C (CS) and Mr Vijay Shrimali, STO-I (CS) coordinated the programme. A total of 29 participants attended the programme. The following topics were covered in the programme:

Sessions	Resource Person
Introduction to Open Source Software and Linux Basic Commands (Theory)	Mr Divyakant Vaghela, Scientist-C (CS)
Institutional Repositories using DSpace (Theory)	Mr Yatrik Patel, Scientist-E (CS)
Metadata Standards for Digital Collections (Theory)	Dr H G Hosamani, Scientist-E (LS)
DSpace Administration and Workflow Submission (Theory and Demonstration)	Mr Vijay Shrimali, STO-I (CS)
DSpace Customization (Theory and Demonstration)	Mr Swapnil Patel, Scientist-C (CS)
DSpace Backup, Import-Export (Theory and Demonstration)	Mr Swapnil Patel Scientist-C (CS)

Table 42: Details of lectures during the Training Programme

6. Collaborative Training Programmes/Workshops

6.1. Five-day Online National Workshop on Web-Based Library Services, Banaras Hindu University, Varanasi, 4th - 8th October 2021

Five-day Online National Workshop on Web-based Library Services organized by Sayajirao Gaekwad Library, Banaras Hindu University, Varanasi in collaboration with INFLIBNET Centre, Gandhinagar from 4th to 8th October 2021. Dr Dewendra Kumar Singh, University Librarian, Banaras Hindu

University worked as Chairman of the workshop and Dr Vivekanand Jain, Deputy Librarian worked as Organizing Secretary for the workshop. Dr Ramesh Chand, Director, Institute of Agricultural Sciences, Banaras Hindu University was the Chief Guest at the Inaugural function. The University Librarian of Banaras Hindu University, Dr Dewendra Kumar Singh, presided over the function. Dr Anil Agrawal, Deputy Librarian welcomed all the participants. A total of 50 working senior library professionals were selected as participants from Central Universities, State Universities, IITs, and other Institutes of National Importance out of the vast pools of the interested list of applications received from across the country. For the workshop, the organizing committee thanked Prof J P Singh Joorel, Director, INFLIBNET Centre and his team of Scientists for their full cooperation during the workshop. The program concluded with very good feedback from the participants. The certificates of attending the workshop were sent to all the participants. The following sessions were delivered online.

Topic	Resource Person
Research Ethics and Plagiarism Issues: UGC Policies/Guidelines	Mr Manoj Kumar K, Scientist-E (CS) INFLIBNET Centre
Introduction to ShodhShuddhi and Demo on OURIGINAL (URKUND) Software	Mr Manoj Kumar K, Scientist-E (CS) and Dr Suboohi Siddiqui, Scientist-B (LS), INFLIBNET with Team OURIGINAL
Overview of Shodhganga: Indian Theses repository	Dr Suboohi Siddiqui, Scientist-B (LS), INFLIBNET Centre
Demo on Theses Uploading into Shodhganga	Dr Suboohi Siddiqui, Scientist-B (LS), INFLIBNET Centre and Team Shodhganga
IRINS and Vidwan	Mr Hitesh Solanki, Scientist-C (CS), INFLIBNET Centre
E-resources: Access and Search Techniques	Dr Vivekanand Jain and Dr. Manish Kumar Singh, BHU
E-ShodhSindhu: Resources in Consortia	Mr Ashok Kumar Rai, Scientist-E (CS), INFLIBNET Centre
SOUL 3.0 for Library	Mr Divyakant Vaghela, Scientist-C (CS), INFLIBNET Centre
Information Literacy	Dr Rajesh Singh, Librarian, University of Delhi
Anywhere Anytime Access of e-Resources using INFED	Mr Raja V, Scientist-C (CS), INFLIBNET Centre

Table 43: Details of lectures during Training Programme

6.2. Two-day Specialized Training Programme on Research Ethics, PDS-ShodhShuddhi and INFED for NIFT Library Professionals and Coordinators, INFLIBNET Centre, Gandhinagar, 15th - 16th November 2021

Two-day Specialized Training Programme on Research Ethics, PDS-ShodhShuddhi, and INFED was organised by INFLIBNET Centre, Gandhinagar from 15th to 16th November 2021. Prof J P Singh Joorel, Director, INFLIBNET Centre inaugurated the programme. Dr Ajit Kumar Khare, Director, NIFT Gandhinagar was the Chief Guest of the programme. This was the first-ever programme conducted in offline mode after 2019 due to the Covid-19 lockdown and travel restrictions. The Centre ensured to follow the Covid-19 guidelines including SOPs and requested all participants to produce vaccination certificates. NIFT Director requested to have more collaborative programmes and to help NIFT for the creation and preservation of their digital contents. Mr Manoj Kumar K, Scientist-E (CS) coordinated the programme along with Dr Suboohi Siddiqui, Scientist-C (LS) and Mr Rajan Kumar, Scientist-B (LS) as co-coordinators. Sh Manoj Kumar K welcomed the participants and gave an overview of the programme. This programme aimed to provide an overview of plagiarism issues, research ethics, and academic honesty, an introduction to ShodhShuddhi, i.e. Plagiarism Detection Software (PDS), qualitative academic writing and INFED E-resource management etc. Dr Suboohi gave brief details about all the topics and session-wise details. Dr H.G. Hosamani, Scientist E (LS) extended a warm vote of thanks to the participants.

Soon after inaugurations and High Tea, training classes were conducted with the advanced features of the newly procured Interactive whiteboard with enhanced audio and visual facilities. About 24 participants from 17 NIFT campuses in India have attended the programme. The certificate of participation was distributed to all participants at the end of the programme. Details of the lectures delivered by the Faculty of INFLIBNET Centre and resource persons during the training programme are as follows:

Topics	Resource Persons
Introduction to Research Ethics and Academic Honesty & Plagiarism Issues	Mr Manoj Kumar K, Scientist-E (CS), INFLIBNET Centre
Qualitative Academic Writing and Publications	Dr Jagdish Joshi, UGC-Human Resource Development Centre, Gujarat University
Demo on OURIGINAL (URKUND)	Mr. Prakash Sharda (OURIGINAL)
INFED E-resource Management	Mr Raja V, Scientist-C (CS), INFLIBNET Centre
Demo on Shodhganga and ShodhShuddhi	Dr Suboohi S., Scientist-C (LS), INFLIBNET

(ORIGINAL)	Centre
Role of Persistent Identity (ORCID) and Research Information Network System in Higher Education	Mr Kannan P., Scientist-E (CS), INFLIBNET Centre
Use of Reference Management Tools: Mendeley, Zotero	Dr Mitesh Kumar Pandya, Scientist-C (LS), INFLIBNET Centre
Assessing and Evaluating Research Performance using Bibliometric Indicators	Dr Kruti Trivedi, Scientist-D (LS), INFLIBNET Centre

Table 44: Details of lectures during the Training Programme

6.3. Five-day Hands-on Training Programme on Research Data and Statistical Analysis using R Programming, Gujarat Biotechnology Research Centre, Gandhinagar, 13th - 18th December 2021

The hands-on training on “Research Data and Statistical Analysis using R Programming” was organised by Gujarat Biotechnology Research Centre (GBRC), Gandhinagar in collaboration with INFLIBNET Centre, Gandhinagar from 13th to 18th December 2021. This event was sponsored by the Gujarat State Biotechnology Mission (GSBTM), Department of Science and Technology (DST), Government of Gujarat. A total of 10 participants were selected out of 32 applications received, mainly consisting of students, research fellows (JRF, SRF, PhD scholars and post-doc fellows) and academicians (including assistant professors, technical assistants, and project managers). A pre-training quiz (comprising 30 MCQs) was conducted to get an idea about the knowledge of the participants regarding the topics covered in the training. At the end of the day, a post-evaluation quiz was conducted to have an idea about the effectiveness of the training program. The analysis of participants’ performance revealed that their average score in the quiz improved from 53.70% to 76.02%. In the valedictory function joint directors of GBRC, Dr Madhvi Joshi and Dr Amrutlal K. Patel interacted with the participants to get feedback for the same, followed by certificate distribution at the end.

The following topics were covered in the programme:

Topic	Resource Person
Data Types in R (Constants, vectors, matrix, data frame, list)	Mr Divyakant Vaghela, Scientist-C (CS) INFLIBNET Centre, Gandhinagar
Introduction to R Programming (Data Handling in R)	Mr Yatrik Patel, Scientist-E (CS), INFLIBNET Centre, Gandhinagar

Introduction to R Programming (Summary Measures and Built-in Functions)	Dr R D Chaudhari, Associate Professor M G Science Institute, Ahmedabad
Data Visualization using R	Dr R D Chaudhari, Associate Professor M G Science Institute, Ahmedabad
Statistical Analysis using R (Hypothesis Testing -I (Parametric))	Dr Parag Shah, Associate Professor, H L College of Commerce, Ahmedabad
Statistical Analysis using R (One way and Two-way ANOVA)	Dr Parag Shah, Associate Professor H L College of Commerce, Ahmedabad
Statistical Analysis using R (Simple and Multiple Regression Analysis)	Dr Parag Shah, Associate Professor H L College of Commerce, Ahmedabad
Statistical Analysis using R (Hypothesis Testing -II (Non-Parametric))	Dr R D Chaudhari, Associate Professor M G Science Institute, Ahmedabad
Deseq2	Mr Nitin Shukla, Jr. Research Fellow GBRC, Gandhinagar
Use of R in Biotechnology: Availability of various libraries and usage	Dr Sandhya Nanjani, Research Associate GBRC, Gandhinagar

Table 45: Details of lectures during Training Programme

Part - IV

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

1. Central Facilities



Fig. 83: INFLIBNET Centre's Library

The INFLIBNET Centre has a specialized library having a unique collection of library and information science, computer science, communication and information technology. The library is fully computerized using the newly launched SOUL 3.0 integrated library management software. The library has around 2,400 documents including books, proceedings, journal Bound Volumes and magazines.



Fig. 84: Periodicals Section

The collection of the library is available online through the web OPAC at <http://www.inflibnet.ac.in/library/>.

SOUL 3.0 OPAC is the interface/mirror for the resources stocked in the library, which will fulfil all the information retrieval requirements at the User's end from the library. It has options from a simple search to advanced search options like the combination of using Boolean operators between all the entry elements. SOUL 3.0 has the facility to approach the database with three different approaches i.e. Simple Search (with fixed combinations of common fields), Boolean Search (Natural Language nomenclature but with AND, OR & NOT operators to join the fields); and Advance Boolean (Combination of using Boolean operators between any of the field tags from MARC records). OPAC also has the facilities to generate bibliographies. The online status of any item stocked, along with its location is available to save the time of the user. The retrieved search results can be exported in MARCXML format. The attachment done in the catalogue module can be viewed directly through "View Attachment". Member OPAC allows Library members to see his/her status. The member can see their privileges, and items issued/reserved under his/her membership.

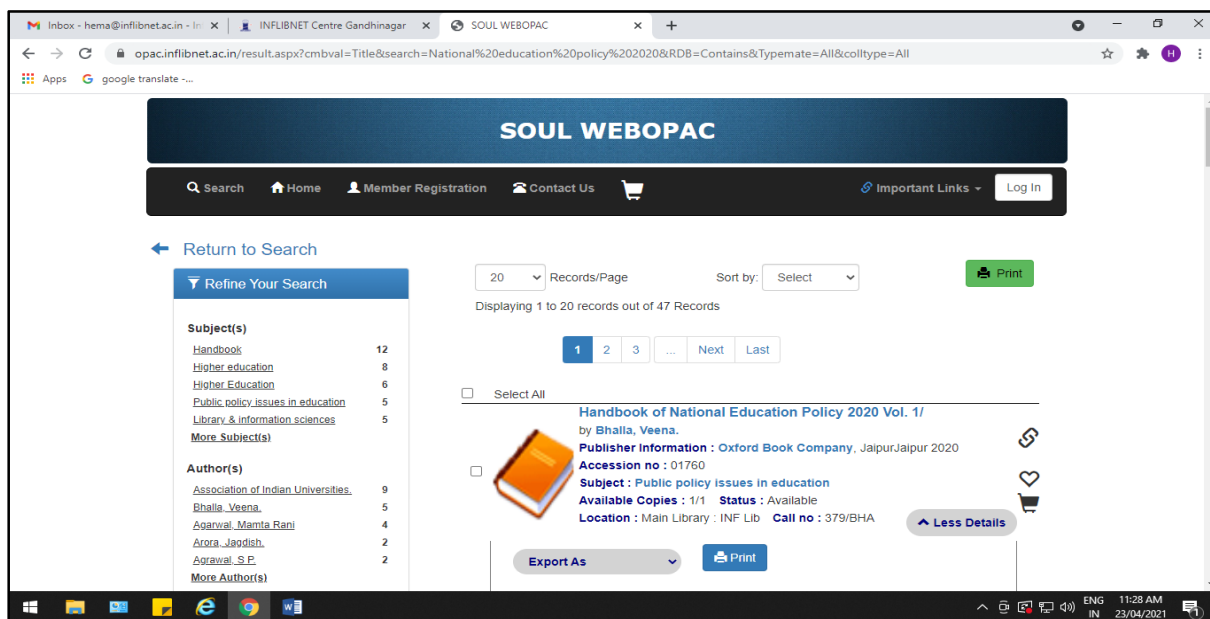


Fig.85: SOUL WEB OPAC

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.

1.1.1. Library Services

The library provides the following services to its users:

-
- a) Reference Service
 - b) Document Delivery Service
 - c) Current Awareness Service
 - d) Inter-Library Loan Service
 - e) Electronic Information Service
 - f) Reprographic Service

1.1.2. Access to Online Databases

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

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

The Centre has established an institutional repository called IR@INFLIBNET using DSpace, open-source software accessible at <http://ir.inflibnet.ac.in>. The papers published in the proceedings of the CALIBER and PLANNER are uploaded into the repository. The Repository also includes course materials, newspaper clippings, etc. The repository has 1,859 full-text articles.

2. ICT Infrastructure @INFLIBNET Centre

The main objective of the Centre is to provide proactive help to the universities in library automation and to mediate resource sharing amongst them. The computing and network infrastructure are the main assets of the Centre, which is designed and planned based on the requirements of schemes, projects and activities of the Centre, its scientists and staff. Basic infrastructural facilities such as Computer Laboratories, Walk-in User facilities and Data centres are being maintained to support all its essential computing activities.

2.1. Servers, Desktops and Laptops

The Centre has added more PCs, Laptops, gadgets and other equipment with high configuration in 2021-2022 with a total no. of 254 PCs, 57 laptops and 34 servers for scientists, project staff, walk-in User's Facility, Training Laboratories, etc. 33 servers include servers that are installed at the Data Centre of INFLIBNET Centre either as staging servers for hosting services such as Web services,

INFLIBNET Website, Shodhganga, N-LIST, N-LIST Proxy Server, InfoPort, e-PG Pathshala, IndCat, DNS server, Intranet server, UGC website, e-SARTS, etc. or as development servers as well as servers that are co-hosted at BSNL Data Centre for mirroring mission-critical services.

The IT infrastructure at INFLIBNET is being upgraded to cope-up with the cutting-edge technology as well as to meet the requirements of high-ended, storage-intensive and mission-critical computing. During the year under report, the Centre acquired the following additional computing and network infrastructure:

Sl. No	Computer and Network Equipment	Quantity
1	Server	1
3	Desktop	31
4	Laptops	1

Table 46: Computing and Network Infrastructure Acquired During 2021 – 2022

Figure 86 depicts the thematic representation of the Data Centre at the INFLIBNET Centre, Gandhinagar.

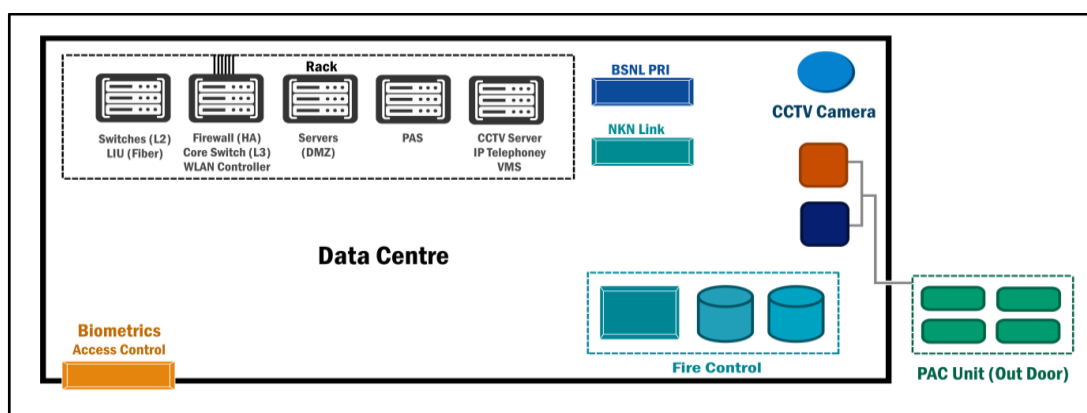


Fig. 86: Thematic Representation of Data Centre at INFLIBNET Centre

The Centre also uses the services of BAADAL Cloud maintained by IIT Delhi as an NMEICT initiative of the Ministry of Education, Government of India.

2.2. Campus-LAN and Internet Connectivity

The Centre provides most of its services through the Internet on a 24x7x365 basis. The network infrastructure is one of the most important components in providing efficient and effective services to remote and local academic users. The Centre has upgraded network infrastructure that connects all its offices and laboratories with National Knowledge Network (NKN) that provides 1 Gbps MPLS

(Multi-Protocol Layer Switching) connectivity to all universities in India. The bandwidth is currently used within a limit of 150-250 Mbps, but it can be increased on-demand based on bandwidth-intensive applications up to 1 Gbps. INFLIBNET Centre has two Internet connections, i.e. one from NKN and the other from BSNL for redundancy. Access to e-resources is enabled on all sets of IP addresses used by the Centre. STM (Synchronous Transfer Mode) equipment at the Centre is connected through Optical Fibre to the Gandhinagar node of NKN on ring topology. During the reported period, NKN provides the second physical path for the 1Gbps line in case of physical damage to any single line. This gives redundancy of NKN links and the architecture of the NKN is enabled to reach all universities with minimum hops. Any university can be reached with minimum hops on NKN and this gives INFLIBNET Centre the advantage of serving the universities with good speed and higher data transfer.

The network is running over managed L3 switches and managed L2 switches with a 40 Gbps ready network with structured cabling, rack, I/Os, jack panels, etc. as shown in Figure. 87. A dedicated firewall appliance is purchased with a subscription to anti-virus, anti-spam and intrusion detection systems. PCs and laptops used in the Centre are protected against attack and other vulnerabilities by Gateway level-filtering and intrusion detection system using Fortinet UTM. User-level antivirus protection is also enabled for end-user protection. On average, the INFLIBNET Website and the national union databases attract more than 15,000 visitors per month.

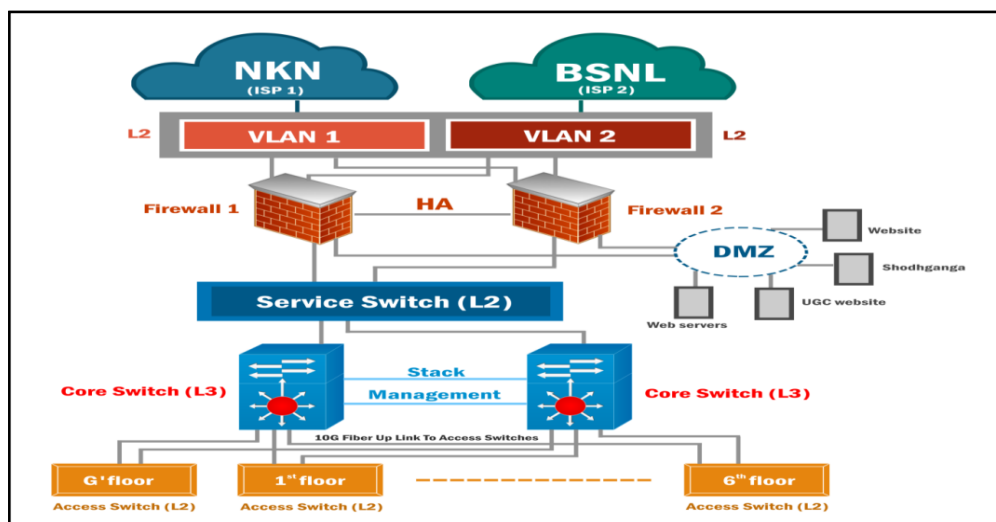


Fig. 87: Thematical Diagram Showing L-2 and L-3 Switches Connected to NKN/BSNL, Firewall and Other Computing Infrastructure in the INFLIBNET Centre

During the year under report, 2 firewalls in HA mode were procured and commissioned for enhancing IT Security and the network service throughout the Campus in the INFLIBNET Centre.

2.3. Integration of Data Centre and other IT Services

The Data Centre established at INFLIBNET Centre is having the most robust setup that is to host mission-critical servers and computer systems, with fully redundant subsystems. All components are fully fault-tolerant including uplinks, storage, chillers and Heating, Ventilation and Air Conditioning (HVAC) systems, servers, etc. The INFLIBNET Centre uses HP BladeSystem C 3000 Enclosure for hosting Web Services, INFLIBNET website, Shodhganga, N-LIST, InfoPort, e-PG Pathshala, IndCat, DNS server, Intranet server, etc. IBM BladeCenter S chassis is used for Web colocation services at BSNL, which host mirror sites of services such as the UGC website, N-LIST Proxy Server, Online UGC's e-SARTS and other important services.

The Building Management System (BMS) integrates the mechanical and electrical equipment used for various services such as ventilation, lighting, power system, fire system and security system. HVAC is used for indoor environmental comfort based on the principle of thermodynamics, fluid mechanics and heat transfer, ensuring maximum levels of efficiency and economy. Honeywell Trend is used for BMS Solutions.

About 27 CCTV cameras from M/s. Honeywell is being used for the Surveillance System by categorizing it into three types. PTZ security cameras allow controlling the Pan, tilt and zoom operations of the camera lens remotely or through programming. The other two cameras are Box type cameras and Dome-type cameras. All cameras are IP-based, advanced and PoE (Power on Ethernet) enabled. Telephony services in the Centre are established using the IP Telephony system in the Local Area Network itself which is based on Internet Protocol phones. Three different categories of phones i.e. Siemens Open Stage 60 for Scientists and Open Stage 40 are used for other staff members and Open Stage 15 for security & residences. The Centre also has 60 "Open Stage 15" IP phones to extend IP Telephony services in 39 Guest Rooms and staff in the office.

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

(Woofers), FOH (Front of the House), surround speakers, crossover amplifier for balancing the gain of audio and stage monitor speaker with plug and play facility. The entire campus is equipped with a Wi-Fi hotspot including guesthouses, residences and the Plaza area.

2.4. Training Laboratories

The Centre conducts training programmes including SOUL Training Programmes regularly. One of the two Training Laboratories is equipped with 42 PCs with projection systems and other equipment for this purpose. All PCs in the Laboratory are connected to the Centre's LAN, which is connected to the Internet. All PCs are set up in dual operating system mode, i.e. Windows and Linux. During the financial year, 2021-22 the Centre equipped one Lab with 86-inch Interactive Board and 65-inch display units. All the PCs and network equipment are backed up with Uninterrupted Power Supply (UPS).

2.5. SOUL Support Centre

The SOUL software, developed by the Centre, has more than 3,700+ installations across the country. SOUL Support Cell is equipped with 5 PCs, a scanner and a printer. A facility has been created to provide support to the users of the SOUL Software with a dedicated telephone line, fax and manpower special earmarked for this purpose.

2.6. Walk-in User's Facility for Researchers

The Centre has 16 Internet-enabled all-in-one PCs with Internet connectivity earmarked for students, scholars, and faculty from neighbouring institutions for accessing e-resources subscribed under e-ShodhSindhu. The license agreements were signed with the publishers of e-resources providers for access to e-resources to "walk-in" users. More than 400 users availed this facility during the period under report.

2.7. Uninterrupted Power Supply (UPS)

The Centre has four 40 kVA each UPS for dedicated power supply to the Data Centre and network equipment installed at different locations of the Centre.

3. Academic Interaction with Universities and other Research Institutions

Although the Centre receives many applications from engineering colleges in Gujarat and neighbouring states for training at the INFLIBNET, the Centre selects limited student trainees. Many

students had undergone practical training at the INFLIBNET Centre during the year under report. The number of students who availed of the internship at INFLIBNET Centre and their institutional affiliations is given below in Table 47.

Sl. No.	Name of the Institute	Degree	No. of Students
1	BVM Engineering College	B.Tech (IT)	04
2	DAI ICT	M.Sc. (IT)	01

Table 47: No. of Students who Availed Internship at INFLIBNET and their Institutional Affiliation

4. Other Notable Activities and Events

4.1. International YOGA Day Celebration

The INFLIBNET Centre celebrated the “7th International YOGA Day: Yoga for Wellness” on 21st June 2021. Prof J P Singh Joorel, Director, INFLIBNET Centre in his inaugural speech briefed about the advantages of practising YOGA in day-to-day life. Yoga trainer Mrs Mahek Desai was invited to demonstrate various Yoga postures and explain the correct way of doing asanas. The staff members at the Centre actively participated in the YOGA Day celebrations at the Centre and performed warm-up exercises, omkar chanting, pranayama, and different asanas.



Fig. 88: International YOGA Day Celebration at the Centre

4.2. हिंदी का प्रयोग और पारिभाषिक शब्दावली विषय पर व्याख्यान, इनफ्लिबनेट केंद्र, दिनांक २२ जुलाई, २०२१

सूचना एवं पुस्तकालय नेटवर्क केंद्र द्वारा २२ जुलाई, २०२१ को हिंदी का प्रयोग और पारिभाषिक शब्दावली विषय पर व्याख्यान आयोजित किया गया। प्रा. आलोक गुप्ता, पूर्व विभागाध्यक्ष, हिंदी अध्ययन केंद्र, गुजरात केंद्रीय विश्वविद्यालय को व्याख्यान देने के लिए मुख्य वक्ता के रूप में आमंत्रित किया गया था।

डॉ. सुबूही ने कार्यक्रम का संचालन करते हुए प्रा. जे पी सिंह जुरैल, प्रा. आलोक गुप्ता तथा डॉ. मितेषकुमार पंड्या को मंच पर आमंत्रित किया। कार्यक्रम की शुरुआत दीप प्रज्वलन और प्रार्थना के साथ हुई। कार्यक्रम के प्रारंभ में मंच पर उपस्थित सभी गणमान्य व्यक्तियों का पुष्प गुच्छ भेंट कर स्वागत किया गया।

डॉ. सुबूही ने मुख्य वक्ता का परिचय कराते हुए उन्हें हिंदी का प्रयोग और पारिभाषिक शब्दावली विषय पर व्याख्यान देने के लिए आमंत्रित किया। प्रा. आलोक गुप्ता ने निदेशक, इनफ्लिबनेट केंद्र को धन्यवाद दिया और हिंदी भाषा के विभिन्न पहलुओं और कार्यालय के अंदर तथा कार्यलय के बाहर नियमित सम्प्रेषण में हिंदी का प्रभावी और कुशल उपयोग करने के संदर्भ में तथ्यात्मक बातें रखीं। उन्होंने कुछ उदाहरणों के साथ इस तथ्य को स्थापित करने की कोशिश की जिसमें उन्होंने कहा कि हिंदी भाषा देश में व्यापक रूप से बोली जाने वाली भाषा है। हालाँकि, हिंदी भाषा का लिखित सम्प्रेषण में इतना प्रमुखता से उपयोग नहीं किया जाता है जितना मौखिक सम्प्रेषण में किया जाता है। उन्होंने जोर देकर कहा कि कार्यालय में लिखित सम्प्रेषण में हिंदी का प्रभावी उपयोग होना चाहिए। प्रा. गुप्ता ने अवगत कराया कि लिखित सम्प्रेषण में हिंदी का कम उपयोग होने के पीछे कई कारण हैं। उन्होंने अधिकारियों के बीच जागरूकता पैदा करने और हिंदी भाषा का प्रभावी रूप से उपयोग करने के लिए कार्यालय में उपयुक्त माहौल बनाने के लिए इस तरह के व्याख्यान आयोजित करने के केंद्र के प्रयासों की सराहना की। उन्होंने व्याख्यान के आयोजन का अर्थ बताने के लिए एक कविता के साथ अपना व्याख्यान समाप्त किया।

डॉ. सुबूही ने प्रा. जे पी सिंह जुरैल, निदेशक, इनफ्लिबनेट केंद्र को प्रासंगिक उद्धोधन के लिये आमंत्रित किया। निदेशक महोदय ने विभिन्न अवसरों के बारे में बात की जिसमें उन्होंने महसूस किया कि बोलचाल में उपयोग की जाने वाली ब्रज (हिंदी) तथा गुजराती भाषा के बहुत सारे शब्दों में समानता है। निदेशक ने यह भी आश्वासन दिया कि केंद्र कार्यालय में लिखित सम्प्रेषण को बढ़ावा देने के लिये यथासंभव उचित कदम उठाएगा और कर्मचारियों को आने वाले दिनों में सम्प्रेषण के माध्यम के रूप में हिंदी भाषा का उपयोग करने के लिए प्रोत्साहित किया जाएगा। निदेशक ने हिंदी का प्रयोग और पारिभाषिक शब्दावली विषय पर व्याख्यान आयोजित करने के लिए हिंदी उप समिति के सभी सदस्यों को धन्यवाद दिया तथा प्रा. आलोक गुप्ता एवं केंद्र के सभी कर्मचारी गण को व्याख्यान में उपस्थित रहने के लिये धन्यवाद दिया।

इस व्याख्यान में केंद्र के लगभग ८० कर्मचारीओं ने भाग लिया।

डॉ. सुबूही ने डॉ. मितेषकुमार पंड्या को औपचारिक धन्यवाद प्रस्ताव देने के लिए आमंत्रित किया। डॉ. पंड्या ने औपचारिक धन्यवाद प्रस्ताव करते हुए उपस्थित सभी अतिथि तथा कर्मचारी गण को धन्यवाद ज्ञापन एवं आभार व्यक्त किया और अंत में उपस्थित सभी व्यक्तीओ को अल्पाहार के लिए आमंत्रित किया।

4.3. हिंदी पखवाड़ा एवं आजादी का अमृत महोत्सव के अवसर पर एक दिवसीय संगोष्ठी, इनफ्लिबनेट केंद्र, दिनांक १७ सितंबर २०२१

सूचना एवं पुस्तकालय नेटवर्क केंद्र द्वारा दिनांक १७ सितंबर २०२१ को हिंदी पखवाड़ा एवं आजादी का अमृत महोत्सव के अवसर पर “स्वतंत्रता आंदोलन से चली हिंदी की विकास यात्रा में हमारा स्वाभिमान” विषय पर एक दिवसीय संगोष्ठी का आयोजन केंद्र परिसर में किया गया। प्रो. रमा शंकर दुबे, कुलपति, गुजरात केंद्रीय विश्वविद्यालय, गांधीनगर इस संगोष्ठी में मुख्य अतिथि के रूप में आमंत्रित किए गए थे। संगोष्ठी के अध्यक्ष के रूप में प्रो. ए डी एन बाजपेयी, कुलपति, अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर, संगोष्ठी के मुख्य वक्ता के रूप में, प्रो. बलदेव भाई शर्मा, कुलपति, कुशाभाऊ ठाकरे पत्रकारिता एवं जनसंचार विश्वविद्यालय, रायपुर तथा संगोष्ठी के विशिष्ट वक्ता के रूप में, और प्रो. कुमुद शर्मा, आचार्य, हिंदी विभाग, दिल्ली विश्वविद्यालय, दिल्ली जैसे जाने-माने विशेषज्ञों को आमंत्रित किया गया था।

डॉ. सुबूही सिद्दीकी तथा श्रीमती रोमा असनानी ने कार्यक्रम का संचालन करते हुए प्रो. रमा शंकर दुबे, प्रो. ए डी एन बाजपेयी, प्रो. बलदेव भाई शर्मा, प्रो. कुमुद शर्मा, प्रो. जे पी सिंह जूरैल, तथा डॉ. मितेषकुमार पंड्या को मंच पर आमंत्रित किया। कार्यक्रम की शुरुआत दीप प्रज्ज्वलन और प्रार्थना के साथ हुई। कार्यक्रम के प्रारंभ में मंच पर उपस्थित सभी गणमान्य व्यक्तियों का पुष्प गुच्छ एवं शाल भेंट कर स्वागत किया गया।

कार्यक्रम के संदर्भ में डॉ. सुबूही ने सभी श्रोताओ/दर्शकों को जानकारी दी और संगोष्ठी में भाग लेने के लिए उपस्थित सभी गणमान्य व्यक्तियों का स्वागत किया।

डॉ. सुबूही ने दर्शकों से प्रो. बलदेव भाई शर्मा का परिचय कराया और उन्हें संबोधन करने के लिए आमंत्रित किया। उन्होंने अपने संबोधन की शुरुआत प्रो. जे पी सिंह जूरैल को आजादी का अमृत महोत्सव तथा हिंदी पखवाड़ा के अवसर पर इस तरह के अद्भुत कार्यक्रम का आयोजन करने के लिए धन्यवाद करते हुए की। उन्होंने स्वतंत्रता आंदोलन में हिंदी भाषा की भूमिका के बारे में बात की। उन्होंने स्वतंत्रता आंदोलन की विभिन्न घटनाओं का हवाला दिया और विभिन्न घटनाओं को सहसंबंधित करने का प्रयास किया जिसमें हिंदी भाषा ने भारत के लोगों के विचारों को व्यक्त करने में महत्वपूर्ण भूमिका निभाई। उन्होंने इस बात पर भी जोर दिया कि हिंदी एक बहुत ही सरल भाषा है और लिखित संचार में विचार व्यक्त करने के लिए इसका उपयोग करने की आवश्यकता है। उन्होंने कुछ उदाहरण दिए ताकि इसे आसानी से समझा जा सके।

कार्यक्रम को आगे बढ़ाते हुए डॉ. सुबूही ने संगोष्ठी के मुख्य अतिथि प्रो. रमा शंकर दुबे का परिचय कराया और उन्हें सभा को संबोधित करने के लिए आमंत्रित किया। प्रो. रमा शंकर दुबे ने भारत के स्वतंत्रता आंदोलन में पंडित मदन

मोहन मालवीय की भूमिका के संदर्भ में अपनी बात रखी तथा श्रोताओं को अवगत कराया कि मालवीयजी का कहना था कि अंग्रेजी माध्यम भारतीय शिक्षा में सबसे बड़ा विघ्न है। सभ्य संसार के किसी भी जन समुदाय की शिक्षा का माध्यम विदेशी भाषा नहीं है। पंडित मदन मोहन मालवीयजी ने यह बात पर जोर दिया था कि नागरिकों के बीच एकता बनाए रखने तथा स्वतंत्रता आंदोलन को मजबूत करने के लिए हिंदी भाषा का उपयोग करना अति आवश्यक है। प्रो. रमा शंकर दुबे ने इस संगोष्ठी में मुख्य अतिथि के रूप में आमंत्रित करने के लिए प्रो. जे पी सिंह जूरैल का आभार प्रकट करते हुए अपने संबोधन को पूर्ण किया।

डॉ. सुबूही ने संगोष्ठी के विशिष्ट वक्ता प्रो. कुमुद शर्मा का श्रोताओं को परिचय करवाया तथा उन्हें वक्तव्य के लिए आमंत्रित किया। प्रो. कुमुद शर्मा ने प्रो. बलदेव भाई शर्मा के व्यंगात्मक भाषण तथा प्रो. रमा शंकर दुबे को उनके भारत के स्वतंत्रता आंदोलन में पंडित मदन मोहन मालवीय की भूमिका के संदर्भ में उनके वक्तव्य के लिए आभार प्रकट किया। प्रो. कुमुद शर्मा ने अपने वक्तव्य में स्वतंत्रता आंदोलन की विभिन्न घटनाओं के संदर्भ में बात रखी तथा समझाया कि किस प्रकार हिंदी भाषा ने भारत के लोगों के विचारों को व्यक्त करने में महत्वपूर्ण भूमिका निभाई। प्रो. कुमुद शर्मा ने इस संगोष्ठी में विशिष्ट वक्ता के रूप में आमंत्रित करने के लिए प्रो. जे पी सिंह जूरैल का आभार प्रकट करते हुए अपने संबोधन को पूर्ण किया।

कार्यक्रम को निरंतर आगे बढ़ते हुए डॉ. सुबूही ने संगोष्ठी के अध्यक्ष तथा अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर के कुलपति प्रो. ए डी एन वाजपेयी का परिचय कराया और उन्हें सभा को संबोधित करने के लिए आमंत्रित किया। उन्होंने संगोष्ठी के अध्यक्ष के रूप में आमंत्रित करने के लिए इनफ्लिबनेट केंद्र के निदेशक तथा हिंदी उप समिति के सभी सदस्यों को धन्यवाद दिया और श्रोताओं का संबोधित किया। उन्होंने पिछले सभी वक्ताओं को स्वतंत्रता आंदोलन से चली हिंदी की विकास यात्रा में हमारा स्वाभिमान विषय पर अपने विचार साझा करने के लिए धन्यवाद किया और अपने विचार रखें। प्रो. वाजपेयी ने जबलपुर की महारानी दुर्गावती के विषय में स्वतंत्रता आंदोलन में उनके योगदान के संदर्भ में विस्तारपूर्वक अपनी बात रखी। प्रो. वाजपेयी ने पूर्व सभी वक्ताओं के वक्तव्य को संजोते हुए हिंदी भाषा के व्यापक उपयोग के संदर्भ में अपना पक्ष रखा। प्रो. वाजपेयी ने श्रोताओं को अवगत कराया कि स्वतंत्रता के संघर्ष में जिस प्रकार रानी लक्ष्मीबाई के योगदान के लिए इतिहास में कविता लिखी गई हैं उसी तरह से महारानी दुर्गावती के विषय में इतिहास में कोई कविता नहीं लिखी गई। स्वतंत्रता के संघर्ष में महारानी दुर्गावती के योगदान के लिए उन्होंने स्वरचित एक कविता लिखी है तथा उस कविता का पठन किया जिसे उपस्थित सभी श्रोताओं ने बहुत ही सराहा।

संगोष्ठी के दूसरे भाग में सांस्कृतिक कार्यक्रम एवं हिन्दी काव्य पाठ का आयोजन किया गया।

केंद्र के कर्मचारीगण द्वारा झाँसी की रानी विषय पर नाट्य प्रस्तुत किया गया जिसमें तृप्ति बारोट, शिवानी जोशी, मितिशा वैद्य, इशिता पटेल, महेश राणा, कोमल सुतरिया, माधवी जोशी, जूही प्रियदर्शी, काजल पटेल, प्रवीण परमार, हार्दिक सोलंकी, मीना बालसामी, विचित्रा आदिद्रविडा, बृजेश कोठड़िया, निधि पत्सरिया, जतिन साधु, यामिनी दवे, रोमा असनानी ने भाग लिया।

केंद्र के कर्मचारीगण द्वारा कविता पठन किया गया जिसमें निम्नलिखित कर्मचारीगण ने भाग लिया:

सुश्री कोमल सुतरिया - मैं हिंदी हूं
सुश्री आकांक्षा पांडे - नफ़रत की ऊंचाई का पाठ
श्रीमती मितीशा वैद्य - हिमालय
श्रीमती जूही प्रियदर्शी - परिंदो को मंज़िल मिलेंगी यकीनन
श्रीमती निधि शर्मा - उठाई मशाल आजादी की

कार्यक्रम के दूसरे भाग में प्रो कुमुद शर्मा, प्रो बलदेव भाई शर्मा एवं प्रो ए डी एन बाजपेयी द्वारा भी कविता पठन किया गया।

काव्य पठन के बाद डॉ. सुबूही ने इनफ्लिबनेट केंद्र के निदेशक, प्रो. जे पी सिंह जूरैल को प्रासंगिक उद्बोधन के लिए आमंत्रित किया। प्रो. जे पी सिंह जूरैल ने सभी आमंत्रित अतिथिओं, हिंदी उपसमिति के सदस्यों तथा केंद्र के कर्मचारीगण का इस एक दिवसीय संगोष्ठी में उत्साहपूर्वक भाग लेने के लिए आभार प्रकट किया। प्रो. जे पी सिंह जूरैल ने अपने वक्तव्य में बताया कि भाषा एक अभिव्यक्ति का माध्यम हैं जो हमें अपने विचार योग्य स्वरूप में प्रस्तुत करने की प्रेरणा देती हैं। उन्होंने यह अवगत कराया कि कैसे इस एक दिवसीय कार्यक्रम के आयोजन का विचार आया और आयोजन हुआ। उन्होंने हिंदी के यथासंभव उपयोग के लिए केंद्र द्वारा उठाए गए अलग अलग प्रयासों की जानकारी दी। प्रो. जे पी सिंह जूरैल ने सभी आमंत्रित अतिथिओं को केंद्र का निमंत्रण स्वीकार करने तथा अपने विचार साझा करने के लिए सहृदय आभार प्रकट किया तथा हिंदी उपसमिति के सदस्यों का धन्यवाद ज्ञापन किया।

कार्यक्रम को आगे बढ़ाते हुए डॉ. सुबूही ने निदेशक को निवेदन किया कि सभी आमंत्रित अतिथिगण को स्मृति चिन्ह भेंट करे। अतिथिगण को स्मृति चिन्ह भेंट करने के पश्चात् केंद्र के कर्मचारीओं द्वारा राजभाषा की प्रतिज्ञा ली गई।

आमंत्रित अतिथिगण तथा निदेशक ने कविता पठन तथा नाट्य प्रस्तुति में भाग लेनेवाले केंद्र के सभी कर्मचारीगण को स्मृति चिन्ह भेंट किया।

इस संगोष्ठी में केंद्र के लगभग १४० कर्मचारीओं ने भाग लिया।

संगोष्ठी के अंतिम पड़ाव में डॉ. मितेषकुमार पंड्या ने औपचारिक धन्यवाद प्रस्ताव करते हुए उपस्थित सभी मेहमान, कर्मचारीगण तथा विशिष्ट रूप से प्रो. जे पी सिंह जूरैल, निदेशक का धन्यवाद ज्ञापन किया एवं सभी को इस एक दिवसीय संगोष्ठी में उत्साहपूर्वक भाग लेने के लिए कृतज्ञता व्यक्त की तथा उपस्थित सभी को भोजन के लिए आमंत्रित किया।

4.4. Independence Day Celebration

The INFLIBNET Centre celebrated the 75th Independence Day on 15th August 2021. The National Flag was hoisted by Prof J P Singh Joorel, Director, INFLIBNET Centre. Prof Joorel addressed the gatherings on that occasion.



Fig. 89: Independence Day Celebration at INFLIBNET Centre

4.5. Navratri Celebration

The INFLIBNET Centre celebrated the Navratri festival with great enthusiasm. The Garba night was organized for its employees and their families on 8th October 2021. The function started with the Durga Puja and everyone from the campus, staff members, and their families participated. The employees and their families turned out in their best traditional attire for the Garba dance. Prof J P Singh Joorel, Director, INFLIBNET Centre distributed the prizes for the best dance performers, best-dressed persons, and children. The function concluded with the ceremonial dinner.



Fig. 90: Navratri Celebration at INFLIBNET Centre

4.6. Hosting of NEP Programme for Western Region

The INFLIBNET Centre as Coordinating Organization hosted the 'National Consultation on Regulatory System of Higher Education: Encouraging Excellence and Public Spiritedness Envisaged by NEP, 2020', organized by the University Grants Commission under the guidance of the Ministry of Education on 29th December 2021 for Western Zone states: West Bengal, Maharashtra, Gujarat, Goa, Rajasthan, Madhya Pradesh, Lakshadweep, and Dadra.

4.7. Republic Day Celebration

The INFLIBNET Centre celebrated the 73rd Republic Day on 26th January 2022. The National Flag was hoisted by Prof J P Singh Joorel, Director, INFLIBNET Centre. He addressed the staff members and their families about the activities of the Centre on this occasion.



Fig. 91: Republic Day Celebration at INFLIBNET Centre

4.8. Lecture on Women in Leadership in the 21st Century, INFLIBNET Centre, Gandhinagar, 11th March 2022 on the Occasion of Women's Day Celebration



Fig. 92:

Prof (Ms) Sushma Yadav and Prof J P Singh Joorel during the Lecture on Sexual Harassment of Woman at Workplace organized at INFLIBNET Centre

On the occasion of Women's Day, a special lecture on "Women in Leadership in the 21st Century" was organized by/at the INFLIBNET Centre on 11th March 2022. Prof (Ms) Sushma Yadav, Member, University Grants Commission and Former Vice-Chancellor, Bhagat Phool Singh Mahila Vishwavidyalay, Khanpur Kalan, Haryana was invited to deliver the lecture.

The main objective of this lecture was to inspire and empower women's leadership in the 21st Century. Prof (Ms) Sushma Yadav highlighted the role of women as a leader in different sectors at regional, national, and global levels. She gave many examples of women's equal participation in leadership activities around the world and also speaks about the cultivation of women's authentic leadership to promote gender equality in the workplace.

Prof J P Singh Joorel, Director, INFLIBNET Centre and staff members of the INFLIBNET Centre were present in the programme. Dr Kruti Trivedi, Scientist-D (LS), and Presiding Officer, Cultural Committee coordinated the programme with other Committee Members of the Cultural Committee. About 165 staff members attended the lecture held in the Auditorium at the Centre.



Fig.

93: INFLIBNET Staff during the Session

5. Right to Information (RTI) Act

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

6. Financial Status

The Audited Annual Accounts of the INFLIBNET Centre for the financial year 2021-22 is given in Appendix X.

Appendices

Council

Ex. Officio Members

President	
<p>Prof M Jagadesh Kumar Hon'ble Chairman University Grants Commission, New Delhi (04th February 2022 onwards)</p> <p>Shri K Sanjay Murthy Secretary Department of Higher Education Government of India, New Delhi (08th December 2021 to 03rd February 2022)</p> <p>Prof D P Singh Former Chairman University Grants Commission, New Delhi (01st April 2021 to 07th December 2021)</p>	
Members	
Vice-Chairman University Grants Commission, New Delhi	Prof Anil D Sahasrabudhe Chairman All India Council for Technical Education, New Delhi
Dr Shekhar C Mande Director-General CSIR, New Delhi	Prof P Kanagasabapathi I/C Chairperson ICSSR, New Delhi
Prof Ajay Pratap Singh Director-General National Library of India, Kolkata	Prof J P Singh Joorel Director INFLIBNET Centre, Gandhinagar (Member Secretary)
Nominated Members	
Prof K P Singh Vice-Chancellor M J P Rohilkhand University, Bareilly, Uttar Pradesh (Vice-Chancellor of a University) (7 th December 2021 onwards)	Prof Ajay Pratap Singh Director-General RRRLF, Ministry of Culture, Govt. of India (An Eminent Library Scientist)

<p>Dr Dinesh Kumar Vice-Chancellor JC Bose University of Science and Technology YMCA, Faridabad (Vice-Chancellor of a University) (04th June 2021 to 6th December 2021)</p> <p>Prof Vinay K Pathak Vice-Chancellor Dr A P J Abdul Kalam Technical University, Lucknow (Vice-Chancellor of a University) (01st April 2021 to 23rd May 2021)</p>	
<p>Prof Lalit Kumar Awasthi Director National Institute of Technology Uttarakhand (Expert in Information Technology)</p>	

All Members of the Governing Board are the members of the Council

Governing Board

Chairman	
Prof Yogesh Singh Hon'ble Vice-Chancellor Delhi University, Delhi	
Ex. Officio Members	
Vice-Chairman University Grants Commission, New Delhi	Prof Rajnish Jain Secretary University Grants Commission, New Delhi
Prof Rama Shankar Dubey Vice-Chancellor Central University of Gujarat, Gandhinagar (Vice-Chancellor of a Local University)	Dr Neeraj Saxena, Advisor-I Member Secretary All India Council for Technical Education, New Delhi (Nominee of AICTE)
Prof J P Singh Joorel Director INFLIBNET Centre, Gandhinagar (Member Secretary)	
Nominated Members	
Prof E Suresh Kumar Vice-Chancellor The English and Foreign Languages University, Hyderabad (Vice-Chancellor of a Central University)	Prof Rajesh Singh Vice-Chancellor Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur (Vice-Chancellor of a State University)
Prof Shalini Bharat Director Tata Institute of Social Sciences, Mumbai (Vice-Chancellor of a Deemed University)	Prof K P Singh Professor Department of Library and Information Science, University of Delhi, Delhi (Eminent Librarian) (4 th June 2021 onwards)

	<p>Dr R K Chadha Former Additional Secretary Lok Sabha, Parliament House, New Delhi (Eminent Librarian) (Upto 3rd June 2021)</p>
<p>Prof Kamlesh Joshipura Former Vice-Chancellor Saurashtra University, Rajkot, Gujarat (Expert in the Field of Communication)</p>	<p>Prof Pratosh Bansal Professor of IT Institute of Engineering and Technology, Devi Ahilya Vishwavidyalaya, Indore (Expert in the Field of Computers)</p>
<p>Prof Jagat Bhushan Nadda Director Consortium for Educational Communication (CEC), New Delhi (One Director of IUC) (04th June 2021 onwards)</p> <p>Dr B K Tripathi Director An IUC for Teacher Education, Banaras Hindu University, Varanasi (One Director IUC) (Upto 03rd June 2021)</p>	<p>Representative of Ministry of Education (e-ShodhSindhu)</p>
<p>Representative of Ministry of Education (e-ShodhSindhu)</p>	

**Finance Committee
Ex. Officio Members**

Chairman		
Prof Yogesh Singh Vice-Chancellor Delhi University, Delhi		
Prof Rajnish Jain Secretary University Grants Commission, New Delhi	Sh P K Thakur Financial Advisor University Grants Commission, New Delhi	
Prof Kamlesh Joshipura Former Vice-Chancellor Saurashtra University Rajkot, Gujarat	Dr (Mrs) Manju Singh Joint Secretary (IUC) Bureau Head of the Plan Budget Section, UGC, New Delhi	Prof J P Singh Joorel Director INFLIBNET Centre, Gandhinagar
Shri Yatrik Patel Member Scientist-E (CS) INFLIBNET Centre, Gandhinagar (6 th July 2021 onwards)		Mrs Neha Sharma Non-Member Secretary Administrative Officer (Finance) INFLIBNET Centre, Gandhinagar (6 th July 2021 onwards)
Shri Ashok Kumar Rai Member Scientist-E (CS) INFLIBNET Centre, Gandhinagar (01 st April 2021 to 05 th July 2021)		Shri Harish Chandra Member Administrative Officer (PA & F) INFLIBNET Centre, Gandhinagar (01 st April 2021 to 05 th July 2021)

**Building Committee
Ex. Officio Members**

Chairman	
Prof Himanshu Pandya Vice-Chancellor Gujarat University, Ahmedabad	
Prof J P Singh Joorel Director INFLIBNET Centre, Gandhinagar	Prof S C Sharma Director NAAC, Bengaluru
Prof Asutosh Trivedi Dean, IRD Delhi Technological University, Delhi	Mr A K Jain Assistant Engineer CPWD, Gandhinagar
Prof Utpal Kumar Sharma Director Institute of Architecture, Nirma Univerity, Ahmedabad	Mr N K Ojha University Engineer The M S Univerity of Baroda, Vadodara
Mr Rajeev Kathpalia Vastu Shilpa Consultants, Ahmedabad	Dr Nilesh Shah Advocate, Vadodara
Mr Manoj Kumar K Scientist-E (CS) INFLIBNET Centre, Gandhinagar	Mr Harish Chandra Administrative Officer (P&A) INFLIBNET Centre, Gandhinagar

Technical, Administrative and Supporting Staff

Scientific and Technical Staff		
Sl.No.	Name of the employee	Designation
1	Prof J P Singh Joorel	Director
2	Mr Manoj Kumar K.	Scientist-E (CS)
3	Mr Ashok Kumar Rai	Scientist-E (CS)
4	Mr Y. R. Patel	Scientist-E (CS)
5	Mr P. Kannan	Scientist-E (LS)
6	Dr Abhishek Kumar	Scientist-E (CS)
7	Dr H. G. Hosamani	Scientist-E (LS) (w.e.f. 01-07-2021)
8	Dr Kruti J. Trivedi	Scientist-D (LS)
9	Mr Dinesh Ranjan Pradhan	Scientist-D (LS) (w.e.f. 15.03.2022)
10	Mr Swapnil P. Patel	Scientist-C (CS)
11	Mr. Divyakant R. Vaghela	Scientist-C (CS)
12	Mr Gaurav Prakash	Scientist-C (CS)
13	Mrs Vaishali. A. Shah	Scientist-C (LS)
14	Dr Mitesh Y. Pandya	Scientist-C (LS)
15	Mr Hitesh Solanki	Scientist-C (CS)
16	Mr Pallab Pradhan	Scientist-C (LS)
17	Mr Raja V.	Scientist-C (CS)
18	Dr Surbhi	Scientist-C (LS) (w.e.f. 08.11.2021)
19	Mrs Hema V. Cholin	Scientist-B (LS)
20	Mr Dharmesh A. Shah	Scientist-B (CS) (w.e.f. 01.04.2021)
21	Ms Shivani Thakur	Scientist-B (LS) (w.e.f. 13.09.2021)
22	Mr Rajan Kumar	Scientist-B (LS) (w.e.f. 14.10.2021)
23	Mr Mohit Kumar	STO-I (CS)
24	Mr Vijay M. Shrimali	STO-I (CS)
25	Dr Roma Y. Asnani	STO-I (LS)
26	Ms Arti Sawale	STO-I (LS)
27	Mr Supriya Pradhan	STA (LS)
28	Mr Sanjay	STA (LS) (till 27.04.2022)
29	Mr Atulkumar Tiwari	STA (CS) (w.e.f. 01.04.2021)
Administrative & Support Staff		
30	Mr Harish Chandra	Administrative Officer (P&A)
31	Mrs Neha Sharma	Administrative Officer (F)
32	Mr S. R. Shah	Section Officer
33	Mrs Y. J. Dave	Office Assistant-II
34	Mr A. B. Parikh	Office Assistant-II
35	Mr Devang Roy	Office Assistant-II
36	Mr S.T.Yadav	Office Assistant-II

37	Mr Lalit Triklani	Office Assistant-II (w.e.f. 26.08.2021)
38	Mr Dharmendra Ramawat	OA-II (w.e.f. 03.09.2021)
39	Mr Thota Vamsi Krishna	OA-II (w.e.f. 21.09.2021)
40	Mr Rakeshkumar Mavjibhai Patel	Assistant (w.e.f. 01.04.2021)
41	Ms Himja Trivedi	Clerk-cum-Typist
42	Mr V. B. Dantani	Helper
43	Mr B.M Parmar	Lab. Attendant
44	Mr Manish R. Bhoi	Helper/Auxiliary Staff-I

State-wise List of SOUL Installations

Sl. No.	Name of the State	Installations	1 st April 2021 to 31 st March 2022	Total
1	Andhra Pradesh	304	0	304
2	Arunachal Pradesh	1	0	1
3	Assam	91	9	100
4	Bihar	23	1	24
5	Chhattisgarh	54	9	63
6	Daman	4	0	4
7	Goa	3	0	3
8	Gujarat	1005	16	1021
9	Haryana	178	8	186
10	Himachal Pradesh	73	4	77
11	Jammu & Kashmir	98	4	102
12	Jharkhand	10	1	11
13	Karnataka	31	0	31
14	Kerala	131	0	131
15	Madhya Pradesh	314	19	333
16	Maharashtra	529	11	540
17	Manipur	2	0	2
18	Meghalaya	3	0	3
19	Mizoram	38	3	41
20	Nagaland	6	0	6
21	Nepal	4	0	4
22	New Delhi	43	1	44
23	North Eastern States*	338	0	338
24	Orissa	11	1	12
25	Pondicherry	5	0	5
26	Punjab	133	2	135
27	Rajasthan	67	0	67
28	Sikkim	4	0	4
29	Tamil Nadu	38	1	39
30	Telangana	8	2	10
31	Uttar Pradesh	121	4	125
32	Uttarakhand	23	1	24
33	West Bengal	150	1	151
Total		3843	98	3941

*NERO Funded

National Advisory Committee, e-ShodhSindhu

Mr K Sanjay Murthy (Chairman) Secretary (HE) Ministry of Education, Govt. of India Shastri Bhawan, New Delhi	Dr Nabi Hasan Librarian IIT Delhi, New Delhi
Mr Rakesh Ranjan (Convener) Additional Secretary (TE) MoE & Mission Director, NMEICT Shastri Bhawan, New Delhi	Prof Asoke Kumar Sen Dean Department of Physics, Assam University, Silchar
Smt Kamini Chauhan Ratan Joint Secretary (HE) Ministry of Education, Govt. of India Shastri Bhawan, New Delhi	Prof Pratosh Bansal Professor of IT, Institute of Engineering and Technology, Devi Ahilya Vishwavidyalaya, Indore
Joint Secretary (TEL) Ministry of Education, Govt. of India Shastri Bhawan, New Delhi	Dr T S Kumbhar Advisor (Library & Institute Archives) IIT Gandhinagar, Gandhinagar
Ms Darshana M Dabral JS & FA Ministry of Education, Govt. of India Shastri Bhawan, New Delhi	Dr Arun Kumar Sharma Librarian Assam University, Silchar
Prof M Jagadesh Kumar Chairman University Grants Commission, Bahadur Shah Zafar Marg New Delhi	Prof V Ramgopal Rao Director Indian Institute of Technology, Delhi Hauz Khas, New Delhi
Prof Anil D Sahasrabudhe Chairman All India Council for Technical Education, Nelson Mandela Marg, Vasant Kunj, New Delhi	Prof J Gowrishankar Director IISER, Mohali SAS Nagar, Manauli
Adviser (Higher Education) NITI Aayog Sansad Marg, New Delhi	Prof Subhasis Chaudhuri Director Indian Institute of Technology, Bombay Powai, Mumbai

Prof Arun Agarwal Vice-Chancellor University of Hyderabad Gachibowli, Hyderabad	Prof P P Das Professor Department of Computer Science, Indian Institute of Technology, Kharagpur
Prof Keshari Lal Verma Vice-Chancellor Pt. Ravishankar Shukla University Amanaka G.E.Road, Raipur	Mr Maneesh Garg Joint Secretary (SE-I) Department of SEL Ministry of Education, Govt. of India, Shastri Bhawan, New Delhi
Dr G K Prabhu President Manipal University, Jaipur	Prof Huzar Saran Professor Dept of Computer Science and Engineering, Indian Institute of Technology, Delhi Hauz Khas, New Delhi
Dr Partha Pratim Chakrabarti Professor Department of Computer Science and Engineering, Indian Institute of Technology, Kharagpur	Prof J P Singh Joorel (Convener) Director INFLIBNET Centre Infocity, Gandhinagar

National Steering Committee (NSC), e-ShodhSindhu

Ex. Officio Members Prof. Virendra Kumar Tewari (Chairman) Director and Professor Indian Institute of Technology Kharagpur	Prof Jayant B Udgaonkar Director Indian Institute of Science Education and Research, Pune
Prof. Prabha Shankar Shukla Vice-Chancellor North-Eastern Hill University, Umshing Mawkynroh, Shillong	Prof Subir Bhattacharya Director Indian Institute of Management, Calcutta
Prof Suhas Pednekar Vice-Chancellor University of Mumbai, M G Road, Fort, Mumbai	Prof Govindan Rangarajan Director Indian Institute of Science, Bengaluru
Dr Rambabu Kodali Vice-Chancellor VIT University, Near Katpadi Road, Vellore	Prof Banshidhar Majhi Director IIIT Kancheepuram
Prof Nageshwar Rao Vice-Chancellor Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi	Prof Dr T G Sitharam Director Indian Institute of Technology, Guwahati
Prof. Sudhir Krishnaswamy Vice-Chancellor National Law School of India University, Nagarbhavi, Bengaluru	Prof Ajit Kembhavi Emeritus Professor IUCAA, Pune
Prof Bhaskar Ramamurthi Director, Indian Institute of Technology, Madras, IIT P.O., Chennai	Dr Nabi Hasan Librarian IIT Delhi Hauz Khas, New Delhi
Prof Karanam Uma Maheshwar Rao Director National Institute of Technology Karnataka, Surathkal	Dr P S Pandey Assistant Director General (EP&HS) & Nodal Officer Co-ordinator CeRA, New Delhi

Mr Mukesh A Pund Coordinator National Knowledge Resource Consortium (CSIR and DST) NISCAIR, New Delhi	Dy Secretary, TEL Ministry of Education, Govt. of India, New Delhi
Dr DD Lal Coordinator DelCON (DBT), Manesar, Gurgaon	Dr (Mrs) Manju Singh Joint Secretary (IUC) University Grants Commission Bahadur Shah Zafar Marg, New Delhi
Mrs Alka Bansal Scientist - D (Coordinator, DRDO Consortium) DESIDOC, Metcalfe House, New Delhi	Mr Rakesh Ranjan (Convener) Additional Secretary (TE) Ministry of Education, Govt. of India, New Delhi
Dr Prabir G Dastidar Scientist/Director (Coordinator, MoES Consortium) Ministry of Earth Sciences, New Delhi	Prof J P Singh Joorel (Convener) Director INFLIBNET Centre Infocity, Gandhinagar

Joint Negotiation Committee, e-ShodhSindhu

Prof Virander Singh Chauhan (Chairman) Arturo Falaschi Emeritus Scientist International Centre for Genetic Engineering and Biotechnology New Delhi	Dr P S Pandey Assistant Director General (EP&HS) & Nodal Officer CeRA, New Delhi
Dr Anand T Byrappa (Nominee, NSC) Librarian Indian Institute of Science, Bengaluru	Mr Mukesh A Pund Coordinator National Knowledge Resource Consortium (CSIR and DST), NISCAIR, New Delhi
Prof Bhaskar Ramamurthi (Nominee) Director Indian Institute of Technology Madras	Dr D D Lal Coordinator DelCON (DBT), Gurgaon
Member from Integrated Finance (Nominee) Division of Ministry of Education, Govt. of India New Delhi	Mr Kuldeep Singh Scientist-G (Coordinator, DRDO Consortium) DESIDOC, Metcalfe House, New Delhi
Member from TEL Bureau (Nominee) Division of Ministry of Education, Govt. of India New Delhi	Dr Hitendra Kumar Loh Director (Coordinator) (ERMED Consortium) National Medical Library, New Delhi
Prof Rajesh Singh Vice-Chancellor Deen Dayal Upadhyaya Gorakhpur University Gorakhpur (Nominee, INFLIBNET GB Member)	Dr Dinesh Siddaiah Librarian IIT Ropar (Member from New IIT)
Prof K P Singh Dept of Library & Information Sciences University of Delhi, Delhi (Nominee, INFLIBNET GB Member)	Dr M K Singh Librarian, IIM Lucknow (Member from IIM)
Mr Ashok Kumar Rai Scientist-E (CS) & In-charge of e-ShodhSindhu INFLIBNET Centre, Infocity, Gandhinagar	Dr Mallikarjun Angadi Librarian, NIT Surathkal (Member from NIT)

Dr P Visakhi Librarian IISER, Mohali (Member from IISER)	Dr Suparna Sengupta Librarian Pt Ravishankar Shukla University, Raipur (Member from State University)
Dr D K Singh Librarian, Banaras Hindu University, Varanasi (Member from Central University)	Prof J P Singh Joorel (Convener) Director INFLIBNET Centre, Infocity, Gandhinagar

Dhirubhai Shah & Co LLP CHARTERED ACCOUNTANTS		INFLIBNET CENTRE Information and Library Network Centre (An Autonomous Inter-University centre of UGC) Infocity, Gandhinagar - 382 007		4th Floor, Aditya Building Mithakhali Six Road, Ahmedabad Telephone No.:079 -26403325/26	
BALANCE SHEET AS AT 31 st MARCH, 2022					
SOURCES OF FUNDS		Schedule	Current Year 2021-22	Previous Year 2020-21	Amount in Rupees
CORPUS/CAPITAL FUND		1	62,55,26,999.16	49,69,06,925.54	
DESIGNATED/ EARMARKED / ENDOWMENT FUNDS		2	1,84,36,79,254.81	1,38,14,23,070.92	
CURRENT LIABILITIES & PROVISIONS		3	20,20,60,659.09	19,09,24,640.38	
TOTAL			2,67,12,66,913.06	2,06,92,54,636.84	
APPLICATION OF FUNDS		Schedule	Current Year 2021-22	Previous Year 2020-21	
FIXED ASSETS		4	37,42,08,383.80	26,68,64,694.94	
Tangible Assets			55.00	3,14,965.23	
Intangible Assets			-	-	
Capital Works-In-Progress			-	-	
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS		5			
Long Term					
Short Term			1,67,69,60,257.00	91,95,88,774.00	
INVESTMENTS - OTHERS		6	-	-	
CURRENT ASSETS		7	39,31,84,598.17	67,88,85,798.39	
LOANS, ADVANCES & DEPOSITS		8	22,69,13,619.09	20,36,00,404.28	
TOTAL			2,67,12,66,913.06	2,06,92,54,636.84	
SIGNIFICANT ACCOUNTING POLICIES		23			
CONTINGENT LIABILITIES AND NOTES TO ACCOUNTS		24			
As per our report of even date attached.					
For Dhirubhai Shah & Co LLP Chartered Accountants					
The above Balance Sheet to the best of our belief contains a true account of the Funds and Liabilities and Properties & Assets of the Institution.					
Sd/- [Parth S Dadawala] Partner FRN : 102511W/W100298 MEM. NO. : 134475 Place : Gandhinagar Date : 24.06.2022		Sd/- [Neha Sharma] Administrative Officer-Fin		Sd/- [Prof J P Singh Joorel] Director	
Place : Gandhinagar Date : 24.06.2022		Place : Gandhinagar Date : 24.06.2022			
Information and Library Network Centre, (An IUC of UGC)					
Page No. : 01					

Dhirubhai Shah & Co LLP CHARTERED ACCOUNTANTS		INFLIBNET CENTRE Information and Library Network Centre (An Autonomous Inter-University centre of UGC) Indicity, Gandhinagar - 382 007		4th Floor, Aditya Building Mithakhali Six Road, Ahmedabad Telephone No.-079 -26403325/26	
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON 31 st MARCH, 2022					
Particulars	Schedule	Current Year 2021-22	Previous Year 2020-21	Amount in Rupees	
INCOME					
Academic Receipts	9	-	-	-	
Grants / Subsidies	10	10,79,55,696.00	7,24,72,788.00	7,24,72,788.00	
Income from Investments	11	63,96,346.00	1,04,03,706.00	1,04,03,706.00	
Interest earned	12	5,03,844.00	7,74,442.00	7,74,442.00	
Other Income	13	1,66,39,638.38	1,50,59,720.13	1,50,59,720.13	
Prior Period Income	14	-	-	-	
TOTAL (A)		13,14,95,524.38	9,87,10,656.13	9,87,10,656.13	
EXPENDITURE					
Staff Payments & Benefits (Establishment expenses)	15	7,16,88,516.00	5,42,04,956.00	5,42,04,956.00	
Employees Retirement & Terminal Benefits	15 A	-	-	-	
Academic Expenses	16	16,87,398.91	28,00,622.93	28,00,622.93	
Administrative and General Expenses	17	2,91,54,152.30	3,53,78,769.09	3,53,78,769.09	
Transportation Expenses	18	5,13,292.14	5,17,164.66	5,17,164.66	
Repairs & Maintenance	19	65,01,664.12	40,92,309.35	40,92,309.35	
Finance costs	20	5,954.16	9,408.24	9,408.24	
Depreciation	4	2,50,48,290.50	2,78,67,635.25	2,78,67,635.25	
Other Expenses	21	6,497.00	-	-	
Prior Period Expenses	22	-	2,20,26,546.68	2,20,26,546.68	
TOTAL (B)		13,46,05,765.13	14,68,97,412.20	14,68,97,412.20	
Balance being excess of Income over Expenditure (A-B)		-31,10,240.75	-4,81,86,756.07	-4,81,86,756.07	
Transfer to General Fund		-2,50,48,290.50	-4,98,94,181.93	-4,98,94,181.93	
Building fund					
Others (specify)					
Balance Being Surplus / (Deficit) Carried to Corpus Fund		2,19,38,049.75	17,07,425.86	17,07,425.86	
Significant Accounting Policies	23				
Contingent Liabilities and Notes to Accounts	24				
As per our report of even date attached. For Dhirubhai Shah & Co LLP Chartered Accountants					
Sd/- [Parth S Dadawala] Partner FRN : 102511W/N100298 MEM. NO. : 134475 Place : Gandhinagar Date : 24.06.2022		Sd/- [Neha Sharma] Administrative Officer-Fin		Sd/- [Prof J P Singh Joorel] Director	
The above Balance Sheet to the best of our belief contains a true account of the Funds and Liabilities and Properties & Assets of the Institution.					
Place : Gandhinagar Date : 24.06.2022					
Information and Library Network Centre, (An IUC of UGC)					
Page No. : 02					

INFLIBNET CENTRE Information and Library Network Centre										4th Floor, Aditya Building Mithakhali SIX Road, Ahmedabad Telephone No.: 079 - 2640329/20	
SCHEDULE – 2 DESIGNATED/ EARMARKED / ENDOWMENT FUNDS :										Amount in Rupees	
	Project Development Fund	D-Space	Swayam Prabha Project	North Eastern Region	E-NBA	IUCTE Project	UGC Grants for Shodhganga	AIU Project	Central University	Gujarat - Project	
A.											
a) Operating balance of the funds	25,469.00	9,30,961.12	1,16,23,393.83	6,37,656.54	0.00	0.00	18,16,798.97	44,983.04	1,05,000.00		
b) Additions during the year	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
c) Income from investments made of the funds	1,019.00	43,041.00	4,64,688.00	25,506.00	6,049.00	3,351.00	40,921.00	0.00	4,200.00		
d) Accrued Interest on investments/Advances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
e) Interest on Savings Bank a/c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
f) Other additions (Specify nature)	0.00	4,52,000.00	0.00	0.00	18,02,066.10	1,68,000.00	0.00	2,00,309.00	0.00		
g) Receivable from UGC/MHRD/ Others	0.00	0.00	0.00	0.00	0.00	0.00	1,10,799.88	1,29,946.18	0.00		
TOTAL (a+b)	26,488.00	14,26,002.12	1,20,88,081.83	6,63,162.54	18,08,115.10	1,71,351.00	19,68,519.85	3,75,238.22	1,09,200.00		
B.											
Utilisation/Expenditure towards objectives of funds											
ii) Capital Expenditure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
li) Revenue Expenditure	0.00	8,929.80	22,58,434.71	0.00	5,92,883.62	18,000.00	19,68,519.85	3,75,238.22	0.00		
TOTAL (c)	0.00	8,929.80	22,58,434.71	0.00	5,92,883.62	18,000.00	19,68,519.85	3,75,238.22	0.00		
NET BALANCE AS AT THE YEAR END (a+b-c)	26,488.00	14,17,072.32	98,29,647.12	6,63,162.54	12,15,231.48	1,53,351.00	0.00	0.00	1,09,200.00		
Represented by											
Cash and Bank Balances	-	-	-	-	-	-	-	-	-		
Investments	26,488.00	14,17,072.32	98,29,647.12	6,63,162.54	12,15,231.48	1,53,351.00	0.00	0.00	1,09,200.00		
Interest accrued but not due	-	-	-	-	-	-	-	-	-		
TOTAL	26,488.00	14,17,072.32	98,29,647.12	6,63,162.54	12,15,231.48	1,53,351.00	0.00	-	1,09,200.00		

Page No.: 107

Information and Library Network Centre, An IIC of IIGC

INFLIBNET CENTRE Information and Library Network Centre									
SCHEDULE – 2 DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS:									
	Vidhwan Expert Database	UGC Scheme SA-III	E-Shodh Sindhu AICTE	E-Shodh Sindhu	ICSSR	NIRF	N-LIST	e-Governance Project	PDS Project
A.									
a) Opening balance of the funds	9,53,759.24	0.00	10,85,82,553.00	1,06,11,94,343.86	7,27,756.18	2,12,31,680.37	4,72,82,554.41	16,80,010.07	4,88,92,847.71
b) Additions during the year	0.00	0.00	2,73,64,003.00	1,40,89,00,000.00	10,00,000.00	0.00	0.00	80,00,000.00	6,07,00,000.00
c) Income from investments made of the funds	38,150.00	0.00	0.00	73,30,576.00	29,090.00	7,28,842.00	48,18,977.00	56,359.00	24,51,117.00
d) Accrued Interest on Investments/Advances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
e) Interest on Savings Bank a/c	0.00	0.00	14,75,050.00	87,15,591.00	0.00	0.00	1,68,461.00	0.00	0.00
f) Other additions (Specify nature)	0.00	0.00	0.00	0.00	0.00	77,03,803.30	7,33,71,202.71	0.00	0.00
g) Receivable from UGC/MHRD/ Others	0.00	5,48,897.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL (a+b)	9,91,909.24	5,48,897.92	13,74,21,606.00	2,48,41,40,510.86	17,56,846.18	2,96,84,325.67	12,56,41,195.12	97,36,369.07	11,20,43,964.71
B.									
Utilisation/Expenditure towards objectives of funds:									
i) Capital Expenditure	0.00	0.00	0.00	0.00	0.00	4,58,600.99	0.00	6,56,505.00	55,370.00
ii) Revenue Expenditure	0.00	5,48,897.92	10,42,25,759.00	97,12,89,860.91	8,91,504.92	1,46,85,745.13	15,64,273.64	56,30,720.64	5,32,59,966.96
TOTAL (c)	0.00	5,48,897.92	10,42,25,759.00	97,12,89,860.91	8,91,504.92	1,51,24,346.12	15,64,273.64	62,87,225.64	5,33,15,336.96
NET BALANCE AS AT THE YEAR END (a+b-c)	9,91,909.24	0.00	3,31,95,847.00	1,51,28,50,649.95	9,55,341.26	1,45,39,979.55	12,40,76,971.48	34,49,143.43	5,87,28,827.75
Represented by									
Cash And Bank Balances	0.00	0.00	2,90,60,014.53	1,38,34,472.95	0.00	0.00	18,25,979.69	0.00	1,02,38,674.75
Investments	9,91,909.24	0.00	41,35,832.47	1,49,50,00,000.00	9,55,341.26	1,45,39,979.55	12,22,50,991.79	34,49,143.43	4,84,89,953.00
Interest accrued but not due	-	-	-	40,16,177.00	-	-	-	-	-
TOTAL	9,91,909.24	-	3,31,95,847.00	1,51,28,50,649.95	9,55,341.26	1,45,39,979.55	12,40,76,971.48	34,49,143.43	5,87,28,827.75

INFLIBNET CENTRE Information and Library Network Centre											4th Floor, Aditya Building Mithakhali Six Road, Ahmedabad Telephone No. 079-2640325/26
SCHEDULE - 2 DESIGNATED/ EARMARKED / ENDOWMENT FUNDS :											
	MGCUB	FSKAN A/c.	Atal FTP Project	Atal Ranking Project	Ek Bharat Shresthna Bharat Pro	IRINS Project	NAAC Project Expenses	UGC DEB Project	Children University		
A.											
a) Opening balance of the funds	13,87,890.00	39,911.78	0.00	46,33,781.18	43,32,128.93	30,67,429.83	4,11,784.64	0.00	10,29,586.59		
b) Additions during the year	0.00	0.00	93,000.00	38,64,000.00	0.00	31,25,000.00	21,58,626.00	0.00	0.00		
c) Income from investments made of the funds	49,507.00	1,506.00	0.00	1,80,374.00	1,60,800.00	1,25,182.00	83,589.00	0.00	39,135.00		
d) Accrued Interest on investments/Advances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
e) Interest on Savings Bank a/c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
f) Other additions (Specify nature)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
g) Receivable from UGC/MHRD/ Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,99,343.99	0.00		
TOTAL (a+b)	14,37,397.00	41,507.78	93,000.00	86,78,155.18	44,92,928.93	63,17,611.83	26,53,999.64	10,99,343.99	24,14,471.59		
B.											
Utilisation/Expenditure towards objectives of funds											
i) Capital Expenditure	0.00	0.00	0.00	1,48,718.48	0.00	6,71,712.01	64,800.00	1,40,647.52	0.00		
ii) Revenue Expenditure	5,49,508.38	0.00	93,000.00	45,85,189.38	11,02,268.92	36,66,239.70	8,31,280.50	9,58,696.47	9,80,187.32		
TOTAL (c)	5,49,508.38	0.00	93,000.00	47,33,907.86	11,02,268.92	43,38,551.71	8,96,080.50	10,99,343.99	9,80,187.32		
NET BALANCE AS AT THE YEAR END (a+b-c)	8,87,888.62	41,507.78	0.00	39,44,247.32	33,90,660.01	19,79,060.12	17,57,919.14	0.00	14,34,284.27		
Represented by											
Cash and Bank Balances	-	-	-	-	-	-	-	-	-		
Investments	8,87,888.62	41,507.78	0.00	39,44,247.32	33,90,660.01	19,79,060.12	17,57,919.14	0.00	14,34,284.27		
Interest accrued but not due	-	-	-	-	-	-	-	-	-		
TOTAL	8,87,888.62	41,507.78	-	39,44,247.32	33,90,660.01	19,79,060.12	17,57,919.14	-	14,34,284.27		

INFLIBNET CENTRE
Information and Library Network Centre

4th Floor, Aditya Building
Mithakhali Six Road, Ahmedabad
Telephone No. 079-2640325/26

Dhirubhai Shah & Co LLP
CHARTERED ACCOUNTANTS

SCHEDULE - 2 DESIGNATED/ EARMARKED / ENDOWMENT FUNDS :

Represented by

Cash and Bank Balances

Investments

Interest accrued but not due

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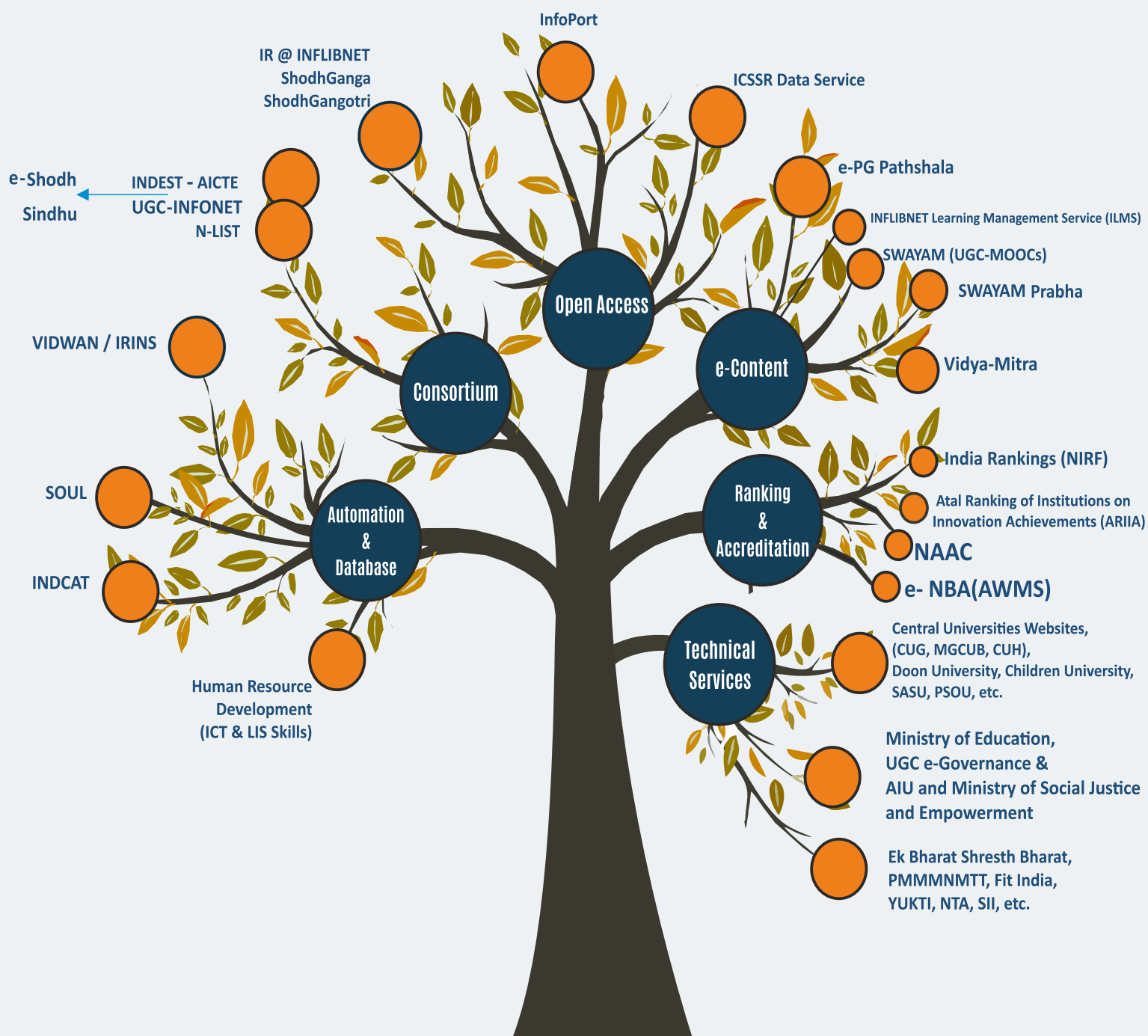
INFLIBNET CENTRE Information and Library Network Centre													4th Floor, Aditya Building Mithakhal Six Road, Ahmedabad Telephone No. 079-2640332/5/26
SCHEDULE - 2 DESIGNATED/ EARMARKED / ENDOWMENT FUNDS :													
	NTA Project Fund	PMNMAT Project Fund	Study in India Project	E-content Portal Maintenance	SPU Project	Swayam Prabha Channel 29	DOSJE Project	FIT India Project	ILMS (Hosting Services) Project				
A.													
a) Opening balance of the funds	0.00	1,48,259.74	35,71,500.90	4,95,97,933.66	1,20,454.00	21,53,930.00	0.00	20,39,020.68	7,05,000.00				
b) Additions during the year	0.00	71,52,000.00	0.00	0.00	0.00	0.00	34,61,170.00	0.00	0.00				
c) Income from investments made of the funds	340.00	0.00	1,09,996.00	19,76,767.00	4,818.00	66,048.00	50,080.00	57,308.00	28,271.00				
d) Accrued interest on investments/advances	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
e) Interest on Savings Bank a/c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
f) Other additions (Specify nature)	10,82,301.86	0.00	39,90,500.00	0.00	0.00	0.00	0.00	0.00	7,06,237.29				
g) Receivable from UGC/MH/HRD/ Others	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
TOTAL (a+b)	10,82,641.86	73,00,259.74	76,71,996.90	5,15,74,700.66	1,25,272.00	22,19,978.00	35,11,250.00	20,96,328.68	14,39,508.29				
B.													
Utilisation/Expenditure towards objectives of funds													
i) Capital Expenditure	0.00	0.00	0.00	0.00	0.00	0.00	7,30,365.00	1,25,601.00	0.00				
ii) Revenue Expenditure	4,13,695.43	29,44,814.24	28,71,876.92	5,73,289.52	0.00	0.00	17,41,189.16	13,49,608.98	0.00				
TOTAL (c)	4,13,695.43	29,44,814.24	28,71,876.92	5,73,289.52	0.00	0.00	24,71,554.16	14,75,209.98	0.00				
NET BALANCE AS AT THE YEAR END (a+b-c)	6,68,946.43	43,55,445.50	48,00,119.98	5,10,01,411.14	1,25,272.00	22,19,978.00	10,39,695.84	6,21,118.70	14,39,508.29				
Represented by													
Cash and Bank Balances	-	-	-	-	-	-	-	-	-				
Investments	6,68,946.43	43,55,445.50	48,00,119.98	5,10,01,411.14	1,25,272.00	22,19,978.00	10,39,695.84	6,21,118.70	14,39,508.29				
Interest accrued but not due	-	-	-	-	-	-	-	-	-				
TOTAL	6,68,946.43	43,55,445.50	48,00,119.98	5,10,01,411.14	1,25,272.00	22,19,978.00	10,39,695.84	6,21,118.70	14,39,508.29				

Dhirubhai Shah & Co LLP
CHARTERED ACCOUNTANTS

Information and Library Network Centre, (An IIC of IUGC)

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INFLIBNET CENTRE Information and Library Network Centre SCHEDULE - 2 DESIGNATED/ EARMARKED / ENDOWMENT FUNDS :									
Amount in Rupees									
		JGNDRSU Project	SSASU Project	Unnat Bharat Abhiyan Project	Doon University Project	NITTR Project	INFAD Project	TOTALS Current Year 2021-2022	Previous Year 2020-2021
A.									
a) Opening balance of the funds		6,81,134.00	7,91,130.62	9,82,427.03	0.00	0.00	0.00	1,38,14,23,070.92	91,31,17,443.48
b) Additions during the year		0.00	0.00	0.00	0.00	0.00	0.00	1,52,58,17,799.00	1,67,93,51,333.76
c) Income from Investments made of the funds		35,053.00	30,027.00	34,219.00	0.00	0.00	0.00	1,90,74,996.00	2,63,33,321.00
d) Accrued Interest on Investments/Advances		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
e) Interest on Savings Bank a/c		0.00	0.00	0.00	0.00	0.00	0.00	1,09,81,477.10	94,42,732.87
f) Other additions (Specify nature)		5,26,042.37	0.00	0.00	81,355.93	75,000.00	2,52,000.00	8,93,74,939.52	11,88,47,313.23
g) Receivable from UGC/MHRD/ Others		0.00	0.00	0.00	0.00	0.00	0.00	16,48,241.91	24,11,229.09
TOTAL (a+b)		12,42,229.37	8,21,157.62	10,16,646.03	81,355.93	75,000.00	2,52,000.00	3,02,83,20,524.45	2,74,95,03,373.43
B.									
Utilisation/Expenditure towards objectives of funds									
ii) Capital Expenditure		0.00	0.00	37,979.00	0.00	0.00	0.00	30,90,299.00	50,66,620.00
ii) Revenue Expenditure		8,24,455.22	2,72,664.72	5,83,720.46	0.00	0.00	0.00	1,18,15,50,970.64	1,36,30,13,682.51
TOTAL (c)		8,24,455.22	2,72,664.72	6,21,699.46	0.00	0.00	0.00	1,18,46,41,269.64	1,36,80,80,302.51
NET BALANCE AS AT THE YEAR END (a+b-c)		4,17,774.15	5,48,492.90	3,94,946.57	81,355.93	75,000.00	2,52,000.00	1,84,36,79,254.81	1,38,14,23,070.92
Represented by									
Cash and Bank Balances		-	-	-	-	-	-	-	-
Investments		4,17,774.15	5,48,492.90	3,94,946.57	81,355.93	75,000.00	2,52,000.00	-	-
Interest accrued but not due		-	-	-	-	-	-	-	-
TOTAL		4,17,774.15	5,48,492.90	3,94,946.57	81,355.93	75,000.00	2,52,000.00	-	-



Information and Library Network Centre

(An Autonomous Inter-University Centre of UGC)

Infocity, Gandhinagar - 382007, Gujarat, India

Email: director@inflibnet.ac.in

<https://www.inflibnet.ac.in/>