

Leveraging the Power of Open Source Technology in Library Operation

Open-Source Practices at TIET Patiala

Shri Ram

Library Overview





Library Area

Five Storied – Iconic Building –
Architecturally Recognized Among Top
26 Stunning Academic Libraries in the
World



Physical Facilities

Seating Space of Over 1000+, 14 Group Discussion Rooms, Seminar Hall. DigiSpace Recording Studio - Under Development Fully Airconditioned



26 Stunning University Libraries Around the World You Need to See (https://www.architecturaldigest.com/gallery/stunning-university-libraries-slideshow)

Library Books





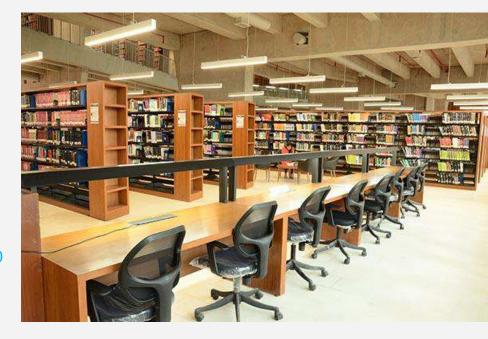
Collection of Books

146,000+ Books



Collection of e-Journals

Access to Over 10 Thousand Journals & 40 Thousand Conference Proceedings from More than **29 Publishers**





















Electronic Journals





IEEE Xplore Digital Library

383 Journals, 44590 Conference Proceedings, 4812 Standards



Science Direct

1157 Journals (10 Subject Collection)



ACM Digital Library

149 Journals and Over 10,000 Conference Publications



American Institute of Physics

19 Journals



ASCE

38 Journals



American Physical Society

16 Journals



ASME

24 Journals



Emerald Management Xtra

138 Journals

Electronic Journals





Economic and Political Weekly

One Journal



Taylor & Francis

1079 Journals



Institute of Physics

46 Journals



Wiley International

908 Journals



Oxford University Press

263 Journals



EBSCOHost Business Source

2200+ Journals in Business & Management, Humanities and Social Science



Springer Nature

1725 Journals



RefRead

Single Interface to Access All the Contents of the Library. Collection of Open Access Journals in All Disciplines

Electronic Databases











Collection of Databases

Bibliographic Database, Statistical Database which includes Web of Science, SCOPUS, EBSCOHost, CMIE, etc



Collection of Standards

ASME, IEEE, IRC, BIS standards













Open Source Software

Open Source Software (OSS), term was coined by Eric Raymond, it is the software for which the source code is freely and publicly available, though the specific licensing agreements vary as to what one is allowed to do with that code.

Free software [FS], term was given by Richard Stallman in 1984, is the software which can be obtained at zero cost i.e. software which gives the user certain freedoms.

Alternative term Free/Libre and "Open Source Software" (FLOSS) refers to software licenses which give users four essential 'freedoms.

- running the program for any purpose,
- studying the workings of the program,
- modify the program to suit specific needs, Finally
- Improve the program, and release the improved, modified version.



Library Management Software













SOPAC

KOHA Integrated Library Management Software



Koha was created in 1999 by Katipo Communications for the Horowhenua Library Trust in New Zealand, and the first installation went live in January 2000

Over 15,000 libraries worldwide use Koha.

KOHA Integrated Library Management Software

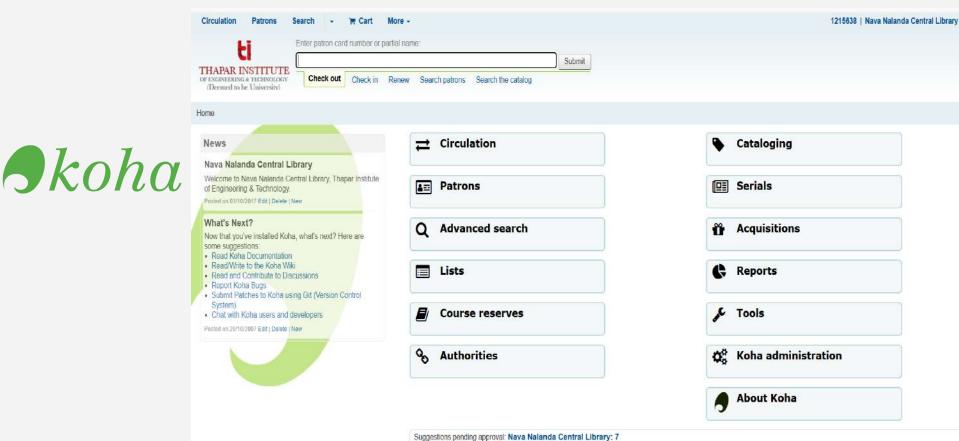


Koha has modules for Acquisitions, Cataloging, Circulation, Serials, Reports, Patrons, Administration, Tools, and Online Public Access Catalog (OPAC).

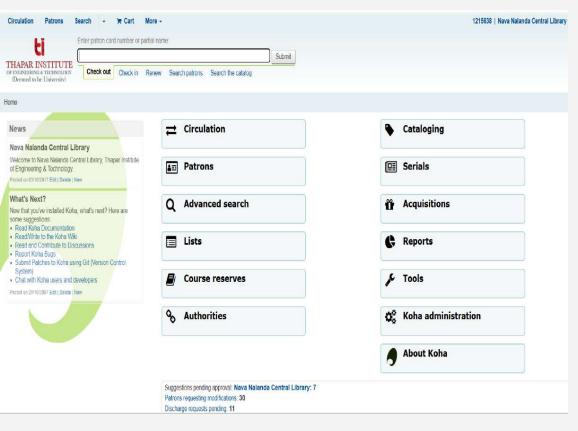
The Latest Version of KOHA also include Provision for Course Reserve and Digital Content Management

KOHA ILMS @ TIET

Patrons requesting modifications: 30 Discharge requests pending: 11



KOHA ILMS @ TIET



- Complete Indexing of Library Collection
- Fully RFID Compliance
- Robust OPAC

Course Reserves



KALPAVRIKSHA Custom Content Digital Library

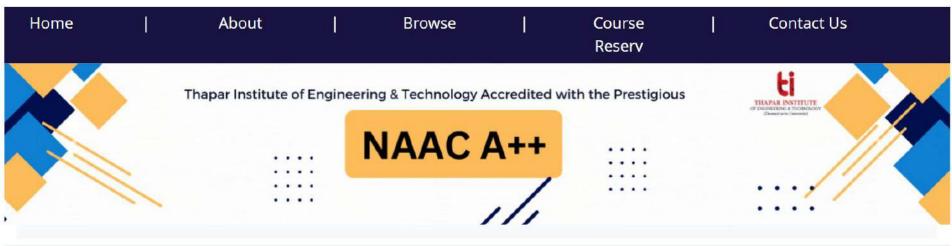




Log in to your account Search history

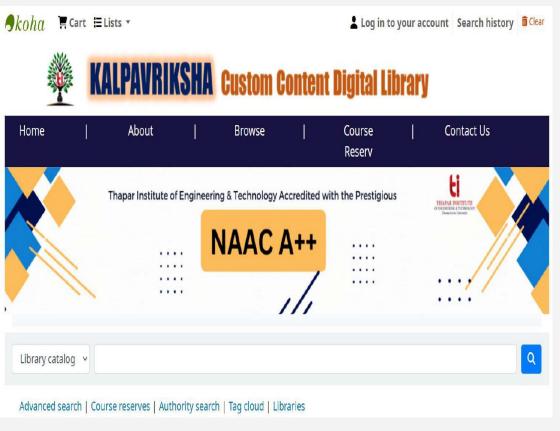


KALPAVRIKSHA Custom Content Digital Library



Library catalog ~

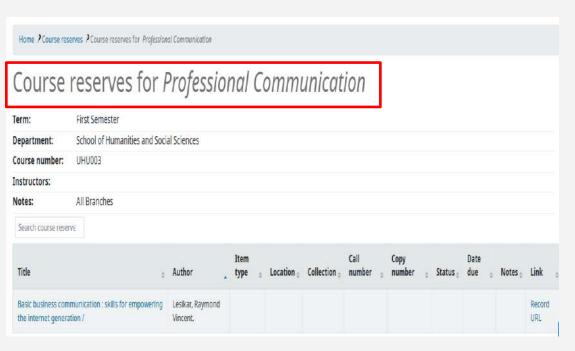
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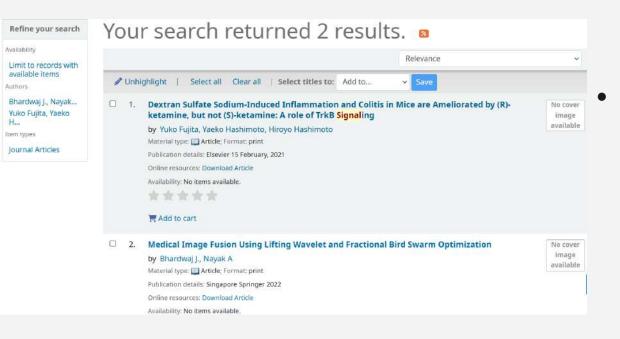
 Another Use of KOHA as Digital Library, Where Syllabus Mapped Electronic Resources has been mapped with the various Courses



Another Use of KOHA as
Digital Library, Where
Syllabus Mapped
Electronic Resources has
been mapped with the
various Courses as
COURSE RESERVE



 Another Use of KOHA as Digital Library, Where Syllabus Mapped Electronic Resources has been mapped with the various Courses as COURSE RESERVE

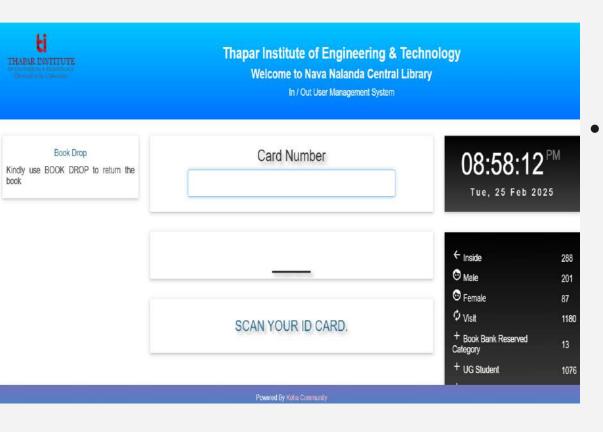


Articles made available through Document Delivery Services has been managed using II MS



- Articles made available through Document Delivery Services has been managed using ILMS
- User Can Download Articles

KOHA ILMS @ TIET



Integrated User
Management for
Daily Foot Fall

Content Management

LibGuides is a platform used by libraries to create and manage online research guides, tutorials, and other resources for students, faculty, and staff.

It allows librarians to organize and present information in a user-friendly format, making it easier for patrons to find relevant resources and conduct research.

LibGuides often includes features such as databases, e-books, online tutorials, and course-specific guides, making it a valuable tool for academic and research institutions.



SubjectsPlus is a free and open source tool to help manage several interrelated parts of your library website.



- ☐ Create Guides
 - Create unlimited Research Guides via drag'n'drop interface
- ☐ Staff List

Sorted A-Z, By Department, By Librarian

■ Database List

A-Z, By Format, By Subject

☐ FAQs

Store your FAQs in one handy place, integrate them anywhere

☐ Suggestion Box

Easy way to display and respond to patron comments

All Resources



RESEARCH@TIET

Library Services for Student

Library Services for Teaching





Research @TIET



Library Services for Research

Research @TIET

All Resources

Library Services for Teaching

STUDENT

Library Services for Student





NNCL Home

Library Services for Student

Library Services for Teaching

Library Services for Research

Research @TIET

All Resources

Welcome to Subject / Research Guide

On this page you'll find the Library's Subject Guides, each of which is designed to help you find information and access materials relevant to your department. Choose your subject from the list below to get started.

Nava Nalanda Central Library team welcomes all your suggestions, feedback and active participation to improve this library guide (LibGuide) using Feedback & Suggestion or mail to HOD, NNCL at librarian@thapar.edu.

Subject Guides

Biotechnology

Chemistry & Biochemistry

Chemical Engineering

Civil Engineering

Contact



Dr. Shri Ram
Librarian
Nava Nalanda Central Library
TIET - 147 004 |



NNCL Home Library Services for Student Library Services for Teaching Library Services for Research Research @TIET All Resources Introduction Journals Databases Theses & Dissertations Open Access Resources NPTEL Video Lectures Books Biotechnology Collection Find Guides Search STATISTICS **Contact Subject Librarian** RESOURCES STATISTICS Mrs. Harpreet Kaur 55 Sr. Library Information Assistant Nava Nalanda Central Library 50 TIET - 147 004 I Patiala | Punjab | India 45 Phone: +91 175 239 3544 I E-Mail: hpreet@thapar.edu 40 35 Useful Links 30 **Faculty Publications** 25 Theses Guidelines 20 Books Journals e-Books e-Journals Theses e-Standards NNCL

DIGITAL REPOSITORY



Digital Repository

A digital repository is a secure online system that stores, manages, and provides access to digital contents.

Digital repositories can contain a wide range of materials, including research papers, historical documents, and multimedia files.

Digital Repository

The Variant of the Digital Repository based on various needs, have different Nomenclature, and One Such Nomenclature is "Institutional Repository"



An **Institutional Repository** is a digital platform within an **Academic Institution** that stores and provides open access to scholarly materials produced by researchers affiliated with the institution.

Digital Repository

In India, University Grants Commission, the Apex Body to frame policy about education system in India, has mandated to deposit each thesis submitted to the Universities for award of a PhD Degree



SHODHGANGA

So, the Emergence of Shodhganga came into practice, where INFLIBNET Center is maintaining the reservoir of Indian Theses







SHODHGANGA



"Shodhganga" is the name coined to denote digital repository of Indian Electronic Theses and Dissertations setup by the INFLIBNET Centre. The word "Shodh" originates from Sanskrit and stands for research and discovery. The "Ganga" is the holiest, largest and longest of all rivers in Indian subcontinent.

SHODHGANGA



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- More than 5,00,000 lakh theses has been uploaded

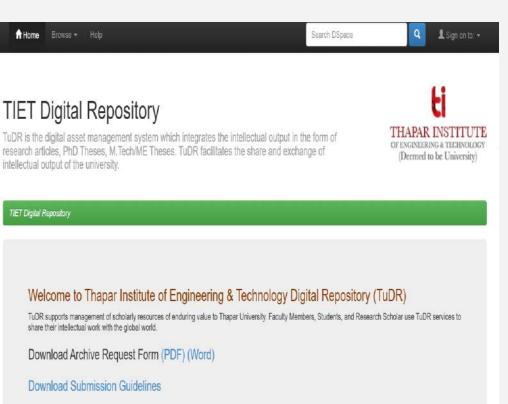
Technology

- **3)**
- DSPACE

- Open Source Digital Repository Software called DSpace developed by MIT (Massachusetts Institute of Technology) in partnership between Hewlett- Packard (HP).
- The DSpace uses internationally recognized protocols and interoperability standards.
- The software has the ability to capture, index, store, disseminate and preserve ETDs (Electronic Theses and Dissertations) submitted by the researchers.



TIET Digital Repository



- At TIET we are maintaining our Digital Repository of Electronic Theses and Dissertations using DSPACE Open Source Software
- Contains about 4782 PhD and Masters theses awarded from various Department of TIET

TIET Digital Repository



TIET Digital Repository

TuDR is the digital asset management system which integrates the intellectual output in the form of research articles, PhD Theses, M.Tech/ME Theses. TuDR facilitates the share and exchange of intellectual output of the university.



Welcome to Thapar Institute of Engineering & Technology Digital Repository (TuDR)

TuDR supports management of scholarly resources of enduring value to Thapar University. Faculty Members, Students, and Research Scholar use TuDR services to share their intellectual work with the global world.

Download Archive Request Form (PDF) (Word)

Download Submission Guidelines

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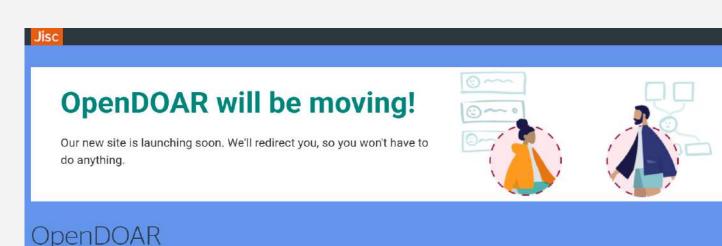
GLOBAL SCENARIO - ROAR



- Globally more than 2500 institutions using Dspace digital repository Software for maintaining the digital collection
- This number is only those who have submitted Information to ROAR

GLOBAL SCENARIO – OPEN DOAR

- OpenDOAR is the quality-assured, global Directory of Open Access Repositories.
- Majority of the Institution use Dspace or Eprint to maintain IR



Welcome to OpenDOAR

Directory

Support

About

OpenDOAR is the quality-assured, global Directory of Open Access Repositories. You can search and browse through thousands of registered repositories based on a range of features, such as location, software or type of material held. Try it out for yourself:

Contact



PRE-PRINT ARCHIVES

Rounds of drafting & informal feedback



Preprint

Work in progress Submitted version

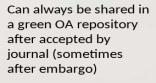
Submitted to journal Peer review Author corrections



Postprint

Author-accepted manuscript (AAM)

Copy-edited Typeset Formatted



Can always be shared in

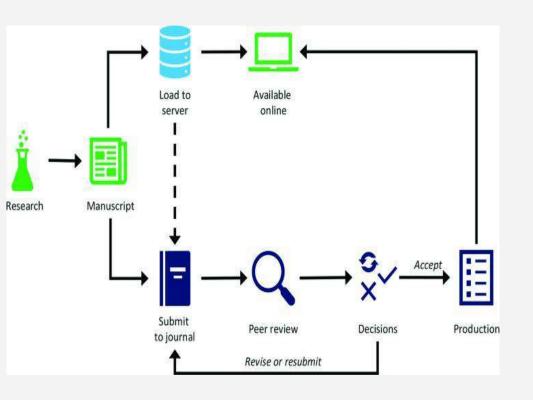
a green OA repository at

any time



Can usually only be shared if published by a gold OA or hybrid journal

Benefits of Preprint Archive



With a preprint,

- Rapid Dissemination (other researchers can discover your work sooner)
- potentially pointing out critical flaws or errors,
- suggest new studies or data that strengthen your argument or even recommend a collaboration that could lead to publication in a more prestigious journal.
- Increased Attention, Early Citations,
- Community Engagements
- The feedback can be provided publicly through commenting, or privately through email
- ❖ Ten Time Increase in the Pre-Print Content Repository

Cons:

Peer review: there is no formal peer review **Novelty**: Novelty is a key criterion for classic journal acceptance



Pre-Print Archive Servers

We gratefully acknowledge support from the Simons Foundation and member institutions

arXiv.org

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Help I Advanced Search

arXiv is a free distribution service and an open-access archive for 1,853,491 scholarly articles in the fields of physics. mathematics, computer science, quantitative biology, quantitative finance, statistics, electrical engineering and systems science, and economics. Materials on this site are not peer-reviewed by arXiv.



News

Read about recent news and updates on arXiv's blog. (View the former "what's new" pages here). Read robots beware before attempting any automated download.

COVID-19 Quick Links

See COVID-19 SARS-CoV-2 preprints from

- arXiv
- · medRxiv and bioRxiv

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Physics

- Astrophysics (astro-ph new, recent, search) includes: Astrophysics of Galaxies; Cosmology and Nongalactic Astrophysics; Earth and Planetary Astrophysics; High Energy Astrophysical Phenomena; Instrumentation and Methods for Astrophysics; Solar and Stellar Astrophysics
- Condensed Matter (cond-mat new, recent, search) includes: Disordered Systems and Neural Networks; Materials Science; Mesoscale and Nanoscale Physics; Other Condensed Matter; Quantum Gases; Soft Condensed Matter; Statistical Mechanics; Strongly Correlated Electrons; Superconductivity
- General Relativity and Quantum Cosmology (gr-qc new, recent, search)
- High Energy Physics Experiment (hep-ex new, recent, search)
- High Energy Physics Lattice (hep-lat new, recent, search)
- High Energy Physics Phenomenology (hep-ph new, recent, search)
- High Energy Physics Theory (hep-th new, recent, search)
- Mathematical Physics (math-ph new, recent, search)
- · Nonlinear Sciences (nlin new, recent, search)
- includes: Adaptation and Self-Organizing Systems; Cellular Automata and Lattice Gases; Chaotic Dynamics; Exactly Solvable and Integrable Systems; Pattern Formation and Solitons
- Nuclear Experiment (nucl-ex new, recent, search)
- Nuclear Theory (nucl-th new, recent, search)
- · Physics (physics new, recent, search) includes: Accelerator Physics; Applied Physics; Atmospheric and Oceanic Physics; Atomic and Molecular Clusters; Atomic Physics; Biological Physics; Chemical Physics; Classical Physics; Computational Physics; Data Analysis, Statistics and Probability; Fluid Dynamics; General Physics; Geophysics; History and Philosophy of Physics; Instrumentation and Detectors; Medical Physics; Optics; Physics and Society; Physics Education; Plasma Physics; Space **Physics**





THE PREPRINT SERVER FOR BIOLOGY

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COVID-19 SARS-CoV-2 preprints from medRxiv and bioRxiv

Subject Areas

All Articles

Bioinformatics

Animal Behavior and Cognition Ecology
Biochemistry Epidemiology*

Bioengineering Evolutionary Biology

Genetics

Biophysics Genomics

Cancer Biology Immunology
Cell Biology Microbiology

Clinical Trials* Molecular Biology

Developmental Biology Neuroscience

Paleontology Pathology

Pharmacology and Toxicology

Physiology Plant Biology

Scientific Communication and

Education

Synthetic Biology

Systems Biology

Zoology

View by Month

*The Clinical Trials and Epidemiology subject categories are now closed to new submissions following the completion of bioRxiv's clinical research pilot project and launch of the dedicated health sciences server medPxiv (submitted to medPxiv). Meet papers that report results of Clinical Trials must now be submitted to medPxiv. Most now Epidemiology papers also should be submitted to medPxiv, but if a paper contains no health-related information, authors may choose to submit it to another bioRxiv subject category (e.g. Genetics or Microbiology).



Q



Preprints in Technology Research from TechRxiv





940,945 views 363,798 downloads

more stats...

ALL CATEGORIES SEARCHQ Preprints Repository of India

indiærxiv

Home

o increase the momentum of science progress, the research outputs need to be shared as soon as possible. And to create a platform for sharing the outputs, the people from the community of practice, Open Access India along with others who felt the need to have such a platform in place came together to launch and develop a preprints repository for the Indian researchers, the IndiaRxiv — India Archive with the support of Centre for Open Science.





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Shodh Ratna: The TIET Research Archive





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Shodh Ratna

Welcome to the Shodh Ratna: The TIET Research Archive

Shodh Ratna is a Repository of Scholarly Research Output of TIET. The Scholarly Output includes the full text of all types of scholarly works: Journal publications, Book Series, Books, Conference papers, project reports, and Patents published by the Researcher of TIET.

Shodh Ratna: The TIET Research Archive



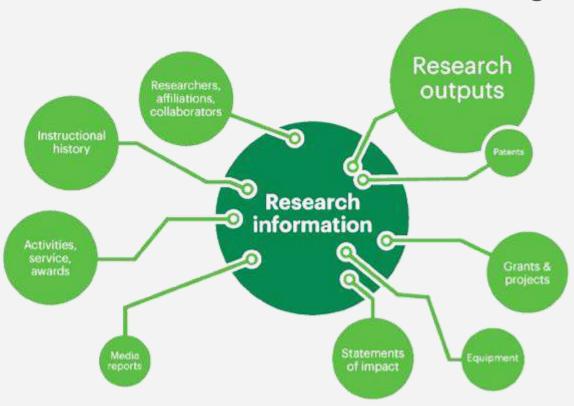
All the Articles Published from TIET are being archived to promote OPEN Access

Increase Visibility of TIET Research

Increase Impact of TIET Research through Open Access

Research information management systems (RIMS) support the transparent aggregation, curation, and utilization of data about institutional research activities.









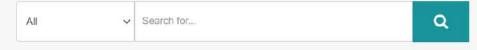


Thapar Institute of Enginering and Technology

Faculty Profiles

A Library Initiative



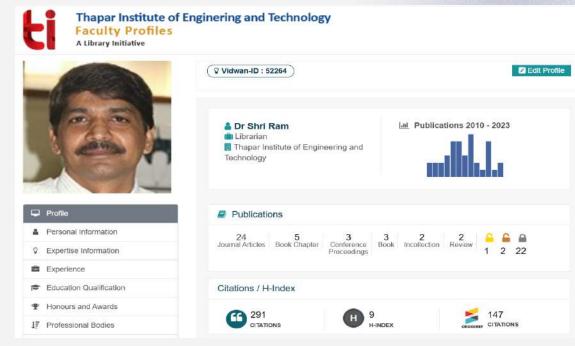








- Complete Profile of the Researcher
- Academic Achievements
- Project Handled
- Publication Statistics
- Research Impact
- Publication Information and Research Impact



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- . Designation LIBRARIAN
- Partnering since 2017-05-09
- College Id 1071 Institute Type ENGINEERING, TECHNOLOGY AND MANAGEMENT

NPTEL is very happy to be associated with THAPAR INSTITUTE OF ENGINEERING & TECHNOLOGY, PATIALA institute and its students. We are thankful to DR SHRI RAM for being a pillar of support in NPTEL initiatives.



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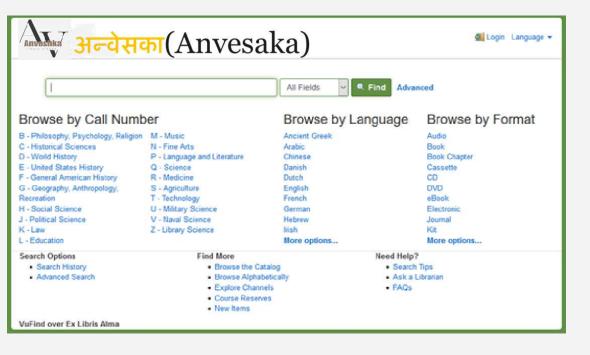
DISCOVERY SERVICES

Single Search Platform - Proposal

- ❖ A discovery service is an online tool that helps library users search for information across a variety of sources. It allows users to search for content in print and online.
- Consolidates metadata from many sources into a single index.
- Single search box for searching across multiple sources.



Single Search Platform - Proposal





In Nutshell

- Cost-effective: Free to use, eliminating licensing fees and reducing overall costs.
- Customization: Allows users to modify the code to fit specific needs or preferences.
- Community Support: Access to a large community for troubleshooting, advice, and shared resources.
- > **Transparency**: The source code is open, enabling users to understand the software's workings and security.
- > Flexibility: Can be integrated with other tools and systems without restrictions.
- > Faster Innovation: Continuous updates and improvements from contributors globally.
- ➤ **No Vendor Lock-in**: Avoid reliance on a single vendor for updates, maintenance, or support.
- > **Security**: Open code allows for thorough peer review, potentially identifying vulnerabilities faster.
- Documentation and Resources: Extensive, often community-contributed documentation to help users
- Scalability: Can easily scale as needs grow without added costs for additional licenses.

Thanks!

Do you have any questions?

Shri Ram Librarian & Head

shriram@thapar.edu