



**SHODH
CHAKRA**
A Gateway to Scientific Journals for Researchers

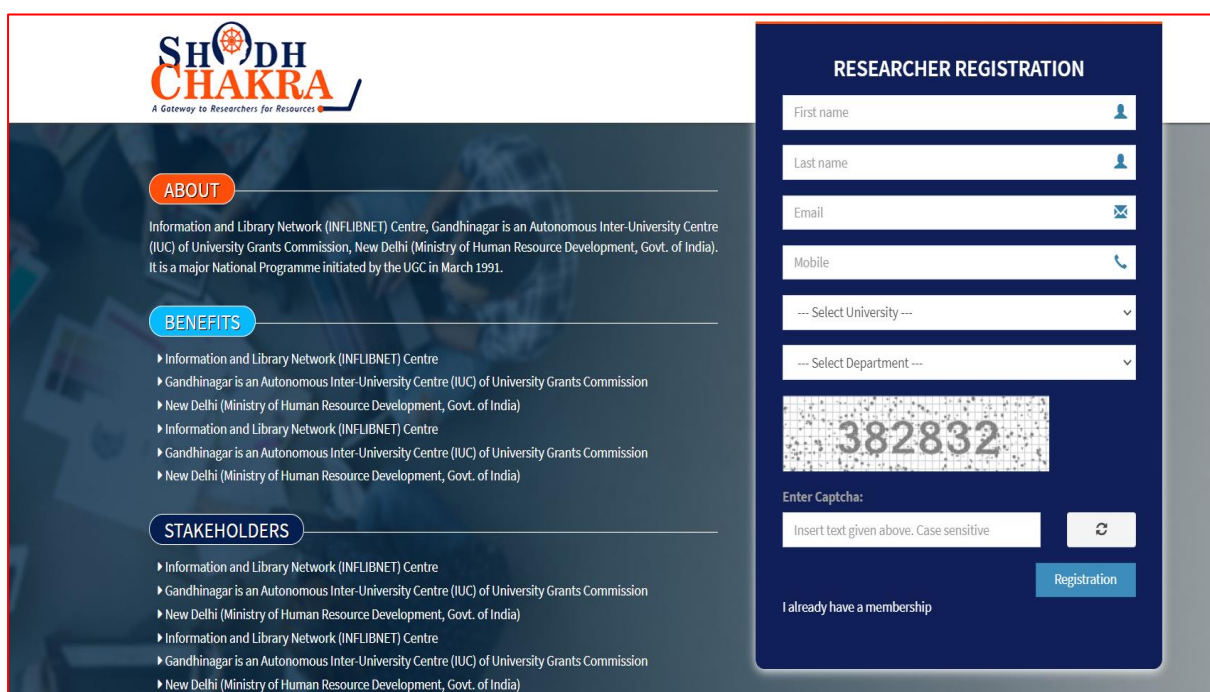
Researchers Manual

1. Researchers Manual

Registration

The Shodh-Chakra helps higher education institutes to manage entire lifecycle of the researcher scholars starting from registration for the Ph.D programme to thesis submission. All the stuffs that are expected by a research scholar during the research journey are embedded into a single dashboard.

Step 1: Register: At the outset, researchers have to register themselves by entering basic details such as First Name, Last Name Email Address, Mobile, University, Department, etc. **Enter the Captcha text** and click on **Register**.



The screenshot displays the Shodh Chakra website interface. On the left, there is a navigation menu with sections: ABOUT, BENEFITS, and STAKEHOLDERS. The main content area on the right is titled "RESEARCHER REGISTRATION" and contains a form with the following fields: First name, Last name, Email, Mobile, a dropdown for "Select University", and another dropdown for "Select Department". Below these fields is a captcha image showing the number "382832". There is a text input field for "Enter Captcha:" with a placeholder "Insert text given above. Case sensitive" and a refresh button. At the bottom of the form is a blue "Registration" button and a link "I already have a membership".

Figure 1: Registration Form

Step 2: Login: After filling these details, you will receive an email and with the help of username and one time password you may login and reset the password, by clicking on the change password option. There are two types of credentials, the first one will be provided by the university and the second one is self-registration by the research scholar; the concerned university will approve and verify your registration in case it is registered by the research scholar. As soon as it is verified by the university, you can login to the portal.



Figure 2: Sign in Page

Enter the email address, password and **Enter the Captcha text** and click on Sign In.

Step 3: After Login: After successful login to the portal, the system will display researcher's dashboard as shown in the figure 3 below. The dashboard will help researchers to setup the research profile by entering research topic, synopsis, scholarship, keywords, etc. The dashboard shows entire workflow of your research starting from literature gathering to the thesis submission. Researchers can search literature from Shodhganga, Crossref and other open access resources that are embedded with the Shodh-Chakra. The portal provides knowledge resources with pre-recorded videos on different topics that includes research ethics, literature review, reference management, scientific/academic writings, and plagiarism. Resource aggregation will help researchers to identify the relevant resources and publications menu will help researchers to find out appropriate journal, conference, and seminar in his/her research. The reference management menu will help researcher to create references in the format of choice. The Zotero reference management tool is integrated with the portal that helps researchers to generate bibliography and references in selected citation style. The thesis submission menu will help researcher to submit the thesis. On the left bottom side of the page, researchers can have their own my research space where they can have small personalized my library allowing them to store resources in drive and mark the favourite resources. Researchers can also interact with Guide directly from this portal.

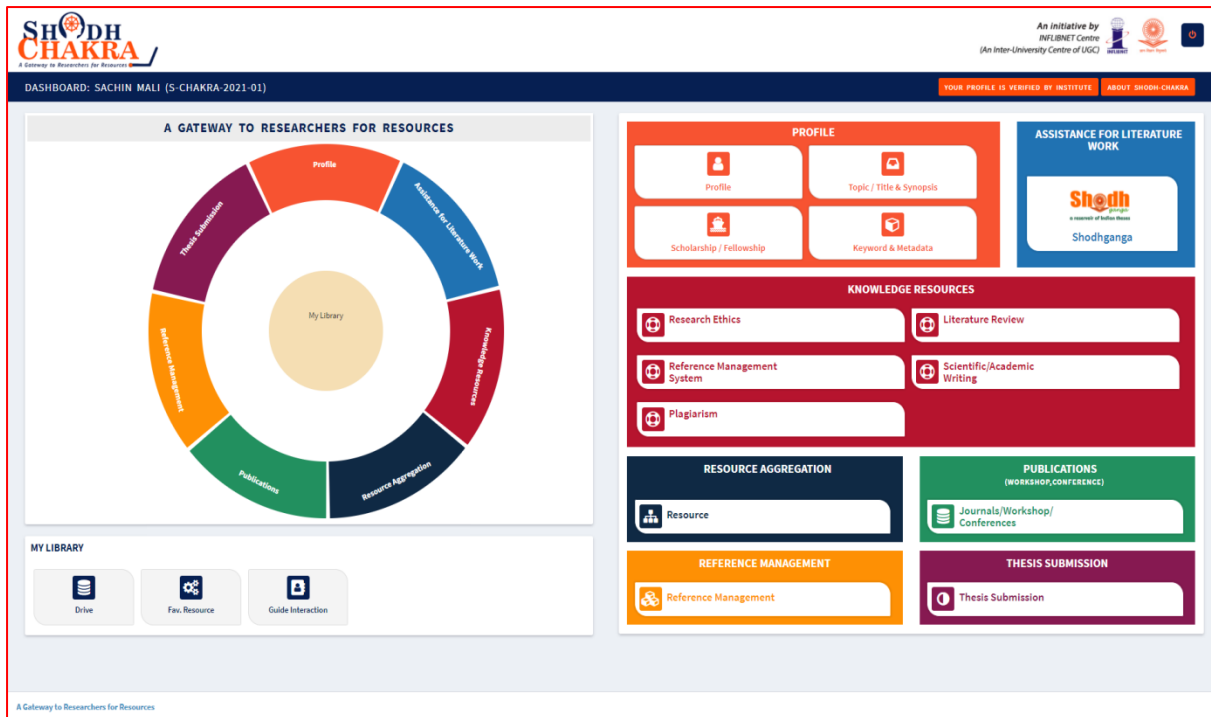


Figure 3: Researchers' Dashboard

A. Profile Creation

The purpose of setting-up researchers' profile is to store research related information and provide suggestion on literature search and allied areas of research. After clicking to the profile, researcher have to fill up the First name, Last name, Email address, Mobile no., Date of admission, gender, upload photo, insert address and click on submit button to save the data.

A Gateway to Researchers for Resources

Figure 4: Profile Creation

Topic: Researcher will be able to select/enter title/topic of research and enter co- guide details. The research scholar will also be able to store ORCID ID and Researcher ID in the profile section as shown in the figure 5 below.

100%

Profile Topic / Title Synopsis Scholarship / Fellowship Keywords & Metadata Course Work Add Objective Dashboard

TOPIC / TITLE

Title * Security Date of Registration * 01-04-2021 Registration Number * test234234 PHD Type * Full Time

GUIDE DETAILS

University * INFLIBNET Guide * Abhishek kumar

CO-GUIDE DETAILS

University INFLIBNET Guide -Select-

RESEARCHER ACADEMIC IDENTITY

Researcher Academic Identity	ID	Remove
ORCID ID	0000-0001-9081-1998	
Researcher ID	RE2131	

Submit

Figure 5: Information about Research Topic/Title

Synopsis: Researcher have to upload synopsis of the research work. It may be approved or not be approved.

SHODH CHAKRA A Gateway to Researchers for Resources

An initiative by INFLIBNET Centre (An Inter-University Centre of UGC)

SACHIN MALI (S-CHAKRA-2021-01) (RESEARCH AND DEVELOPMENT - INFLIBNET)

100%

Profile Topic / Title Synopsis Scholarship / Fellowship Keywords & Metadata Course Work Add Objective Dashboard

SYNOPSIS

Synopsis * Choose File No file chosen Synopsis Approve/Not Approve ? Not Approved

Submit

Figure 6: Synopsis of Research

Scholarship & Fellowship: The research scholar can record details of fellowship/scholarship received for the research work. These details are verified by the university and therefore, it will be locked after submitting the data and will be edited by only university administrator. The

system shows YES and NO options, if researcher selects yes, then few more fields will be displayed. As soon as these details are filled, click on submit button.

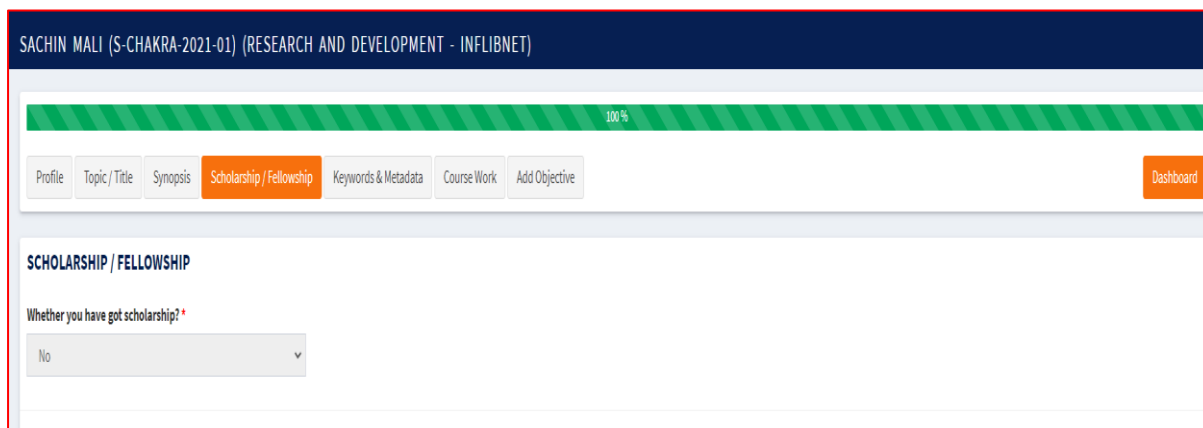


Figure 7: Information about Scholarship/Fellowship

Keywords & Metadata: The Keywords and metadata tab will help researcher to select category of subject and appropriate keywords for the research work. The system will fetch relevant literature from different resources that are integrated in the portal and prompted on the dashboard.

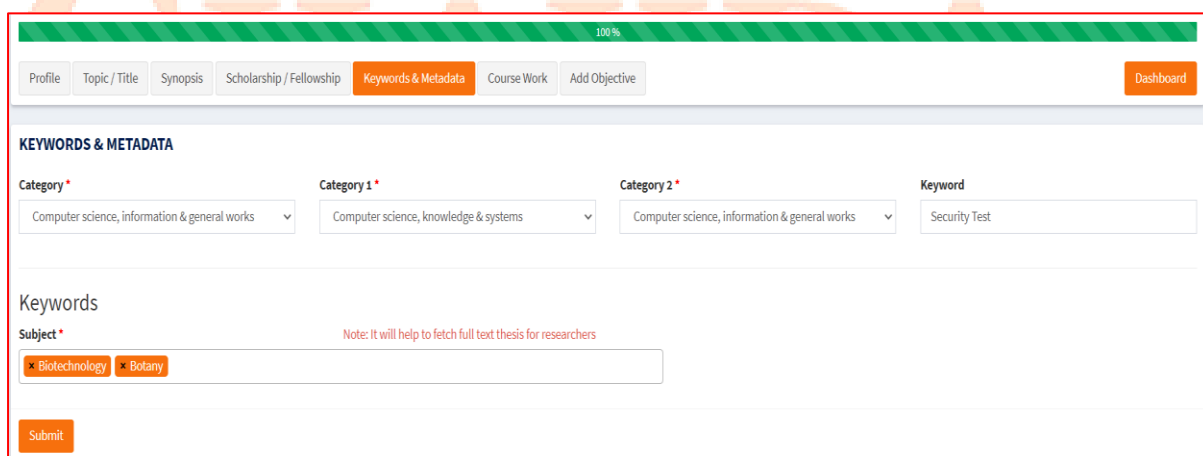


Figure 8: Keywords and Metadata

Course Work: The coursework tab under the profile section will help research scholars and university to keep the track of course work related information as shown in the figure 9 below.

Figure 9: Coursework Related

Add Objectives: The objective section under profile management will help researcher and guide to keep track of the completion of research work and set forth the target of the research work. Researcher can select name of the guide and the progress of the objective can be reported using this section.

Figure 10: Research Objectives

B. Assistance for Literature Work: Shodhganga

Shodhganga is an open access repository of theses submitted to Indian universities. Researcher can use this repository for variety of purpose from checking uniqueness of the research work to referring relevant thesis in the area of current research work. Shodhganga contains lakhs of records of thesis submitted to the academic institutes across the country.

Shodhganga Data : The system will correspond with the live Shodhganga database and results will be displayed on the screen as shown in the figure 11 below. Research scholar may choose the relevant one and click on ‘**Add to Favourite**’ button to store in the resource under ‘**My Library**’. Researchers may click on ‘**View**’ button to read the full text of selected thesis. Researcher would be able to annotate from the result page itself by clicking on button ‘**Add with Annotation**’. This feature will help researchers to create on the fly annotations for further use.

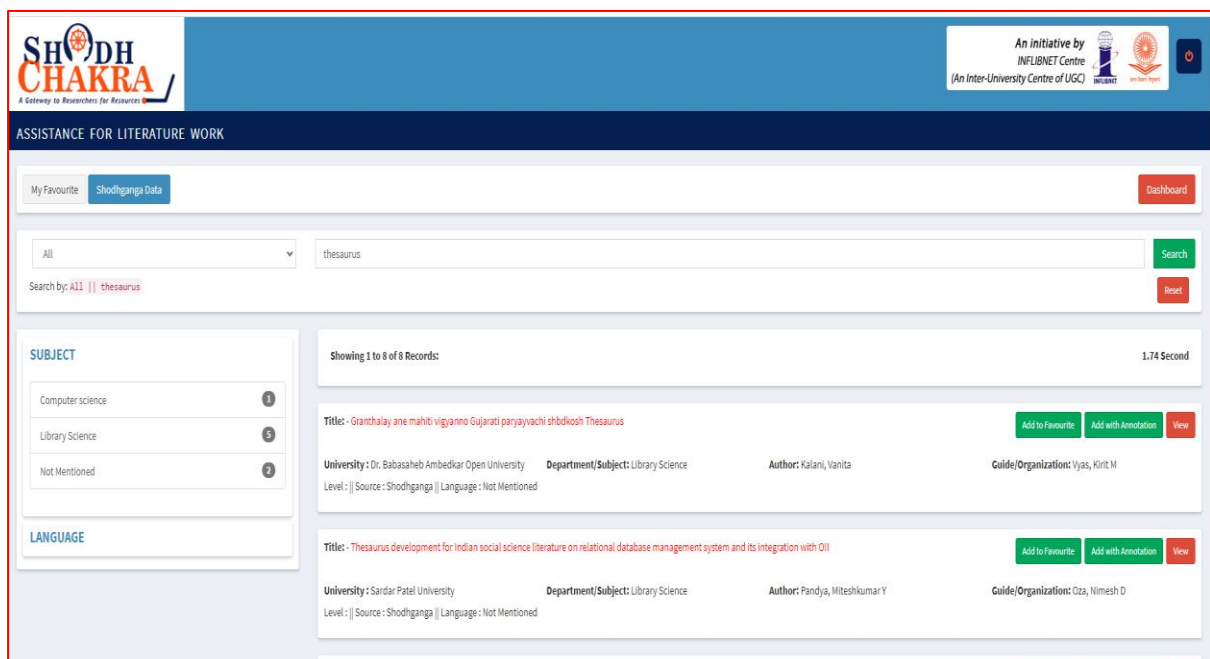


Figure 11: Related Thesis from Shodhganga

C. Knowledge Resources

The Knowledge Resources contains textual and video modules developed by the experts on various aspects of ethical research. The topic includes research ethics, literature review, reference management, academic writings, and plagiarism.

Knowledge Resource: The first tab in the knowledge resources is ‘**Research Ethics**’. E-text and videos related to research ethics are displayed on the screen and researchers can read and watch all the modules listed on in the left side of the screen as shown in the figure 12 below.

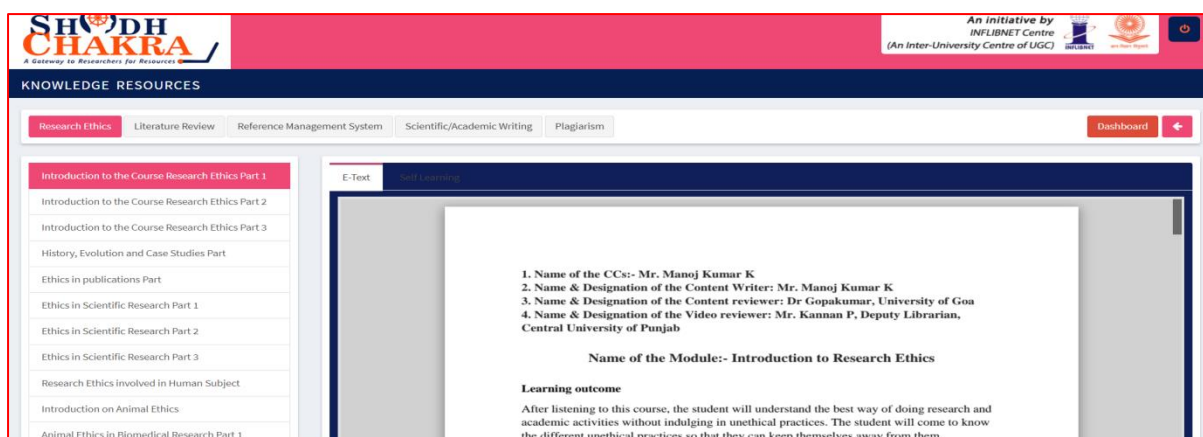


Figure 12: Knowledge Resources – Research Ethics

Literature Review: The second tab under knowledge resources is ‘Literature Review’, this will help researchers to conduct effective an efficient literature search on selected topics of research as shown in the figure 13 below.

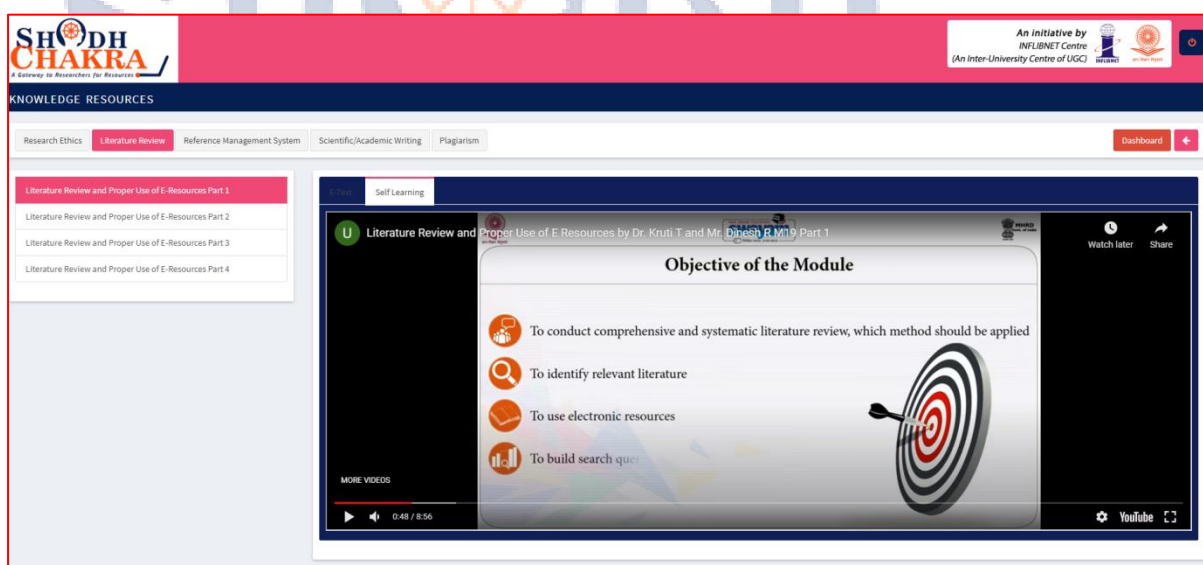


Figure 13: Knowledge Resources – Literature Review

Reference Management System: The third tab in the knowledge Resources ‘Reference Management System’. This will help researchers to understand tools and techniques to use various reference management tools namely Mendeley and Zotero. The modules under reference management would also be helpful in citing while writing the research paper and chapters of thesis.

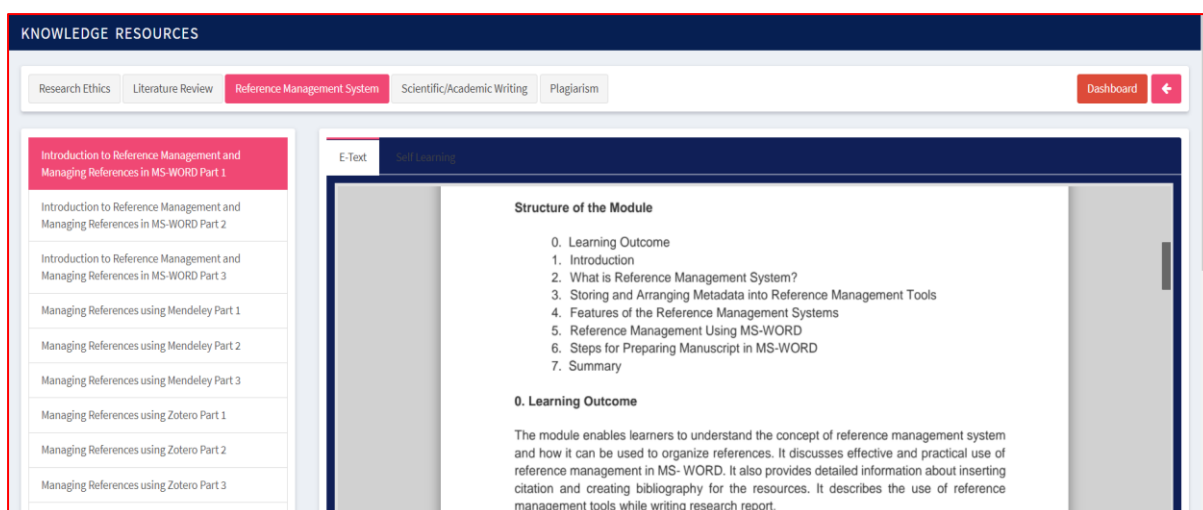


Figure 14: Knowledge Resources – Reference Management

Scientific Academic Writing: The fourth tab is Scientific/Academic writings. Academic writings is an art and the modules under scientific/academic writings covers important aspects of academic writings.

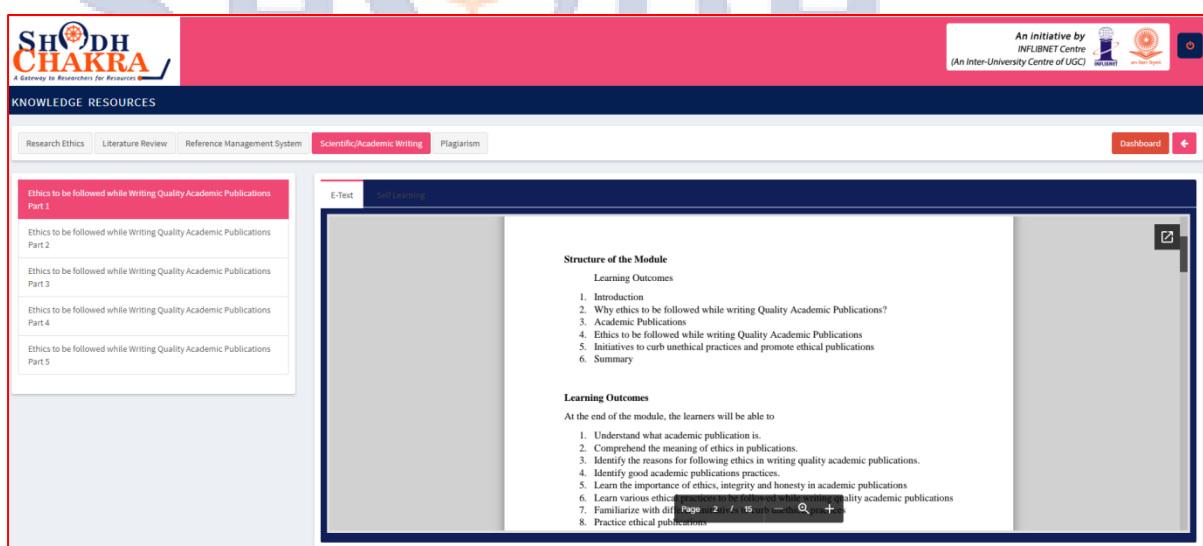


Figure 15: Knowledge Resources – Scientific/Academic Writing

Plagiarism: The fifth and last tab in the knowledge resources is 'Plagiarism'. Plagiarism is one of the key concepts that a researcher has to understand before starting any research activity. The videos recorded by experts gives in-depth idea on avoiding plagiarism in research activity.

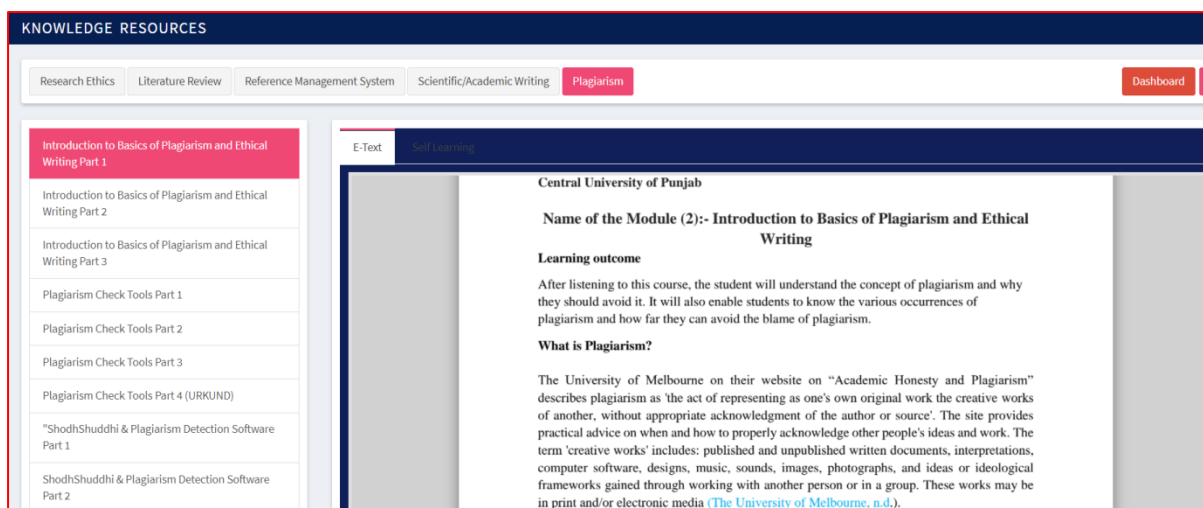


Figure 16: Knowledge Resources – Plagiarism

D. Resource Aggregation

Resource aggregation section facilitates researchers to find out relevant resources from different categories and store it into ‘My Favourite’ for future use and reference. This feature will help researchers to find out published papers from different databases such as **Google Scholar, Scopus and Open Access resources.**

My Favourite: The first tab under resource aggregation is ‘My Favourite’. This tab will store all the resources that are marked as Favourite. The figure 17 shows the details of the saved resources under my favourite tab.

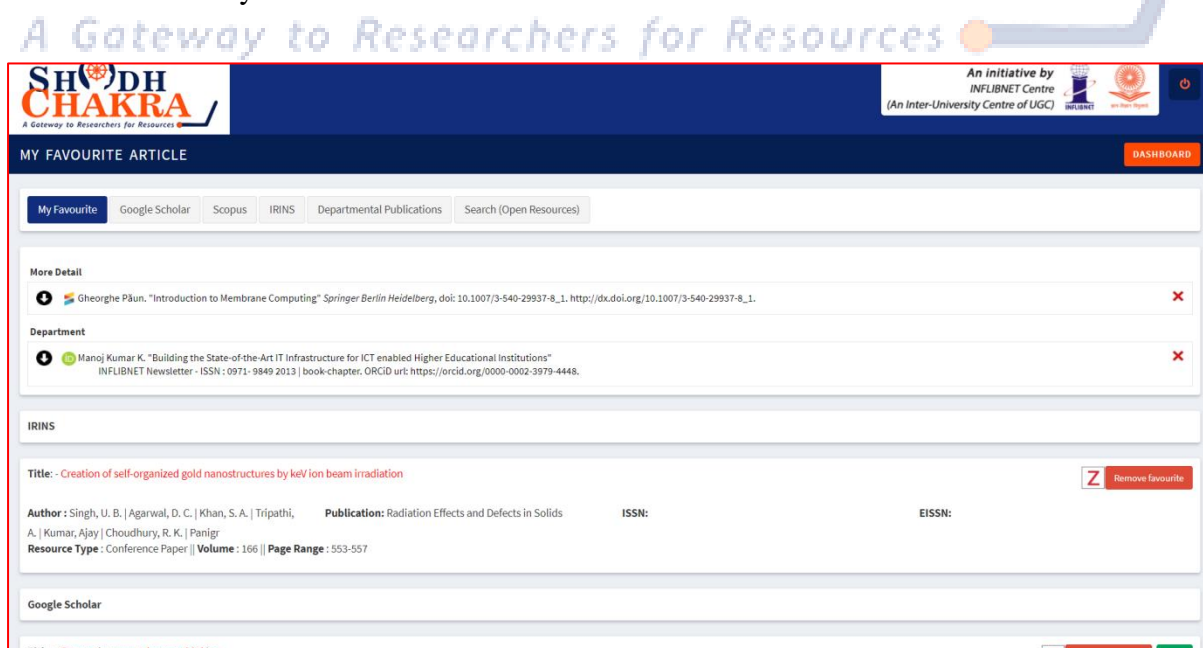


Figure 17: My Library – Favourite Resources

Google Scholar: The second tab under resource aggregation is ‘Google Scholar’. Google Scholar is integrated using API with resource aggregation tab. It will provide simple search box with three fields namely, Google Scholar ID, Title, Author, Keywords. Researchers may enter appropriate term and select a field in which he/she wants to perform the search. The system will fetch results and can be added to favourite by clicking on the “Add to Favourite” button as shown in the figure 18 below.

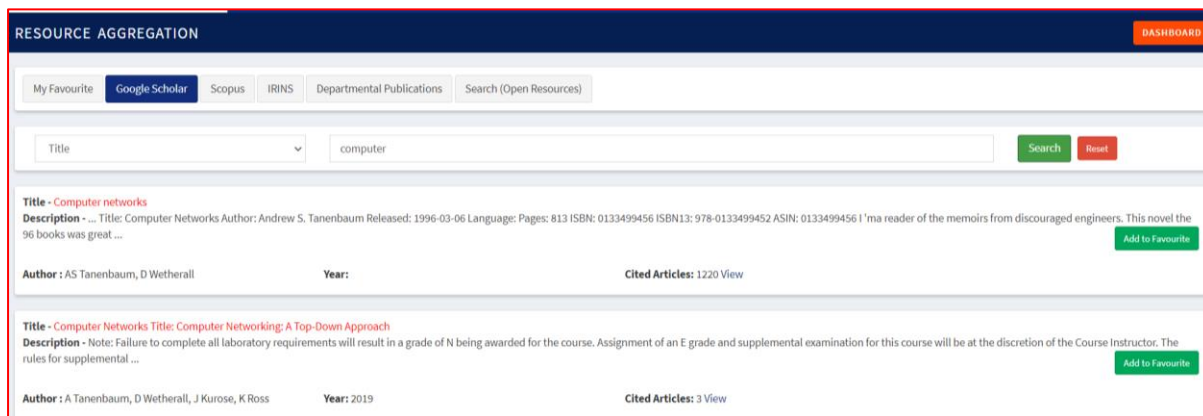


Figure 18: Favourite Resources – Google Scholar

Scopus: The third tab under resource aggregation is ‘Scopus’. Scopus is an indexing and abstracting database that has millions of articles with citation score of each research paper. The Shodh-Chakra fetches bibliographic information of the searched terms and displays on the screen. Researchers can check the appropriateness of the article and mark as favourite for further use.

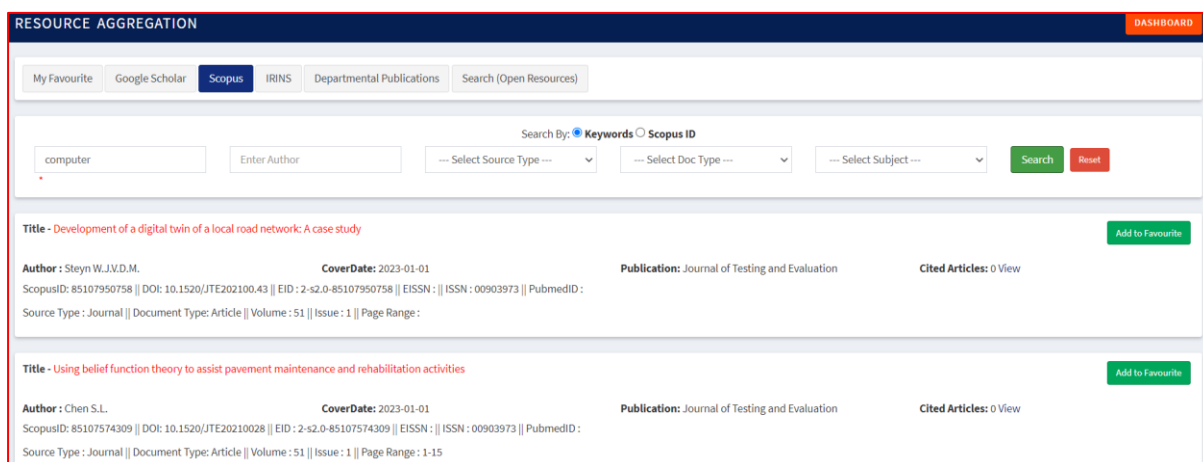


Figure 19: Favourite Resources – Scopus

IRINS: The fourth tab is ‘IRINS’. Research profiles of faculty members of most Indian academic institutions have been created on IRINS portal. IRINS has been integrate with Shodh-Chakra to enable research scholars to search in the IRINS and mark as favourite for future use.

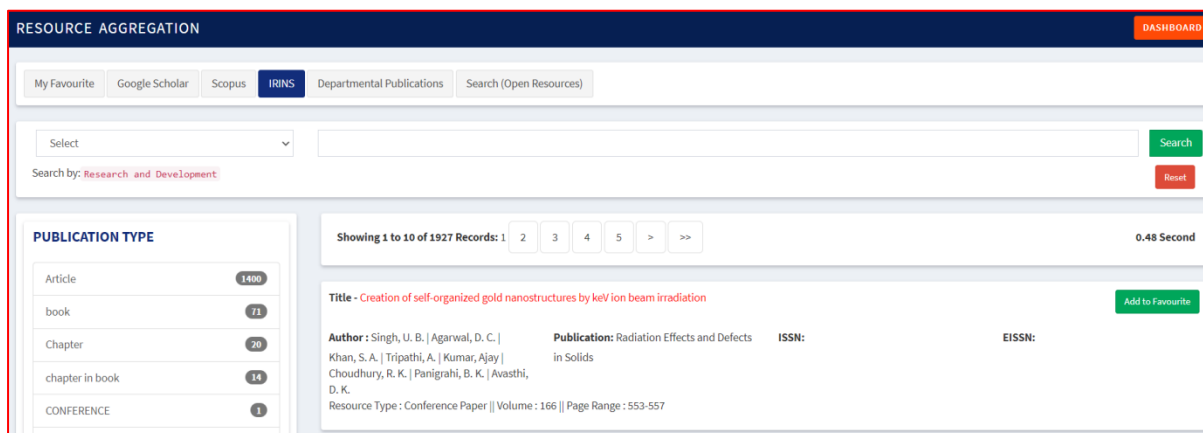


Figure 20: Favourite Resources – Indian Articles

Departmental Publications: The departmental publications will list out all the resources published by the colleagues from the same department of native institute of researchers. Researcher may add to favourite and store it in my library section for future reference.

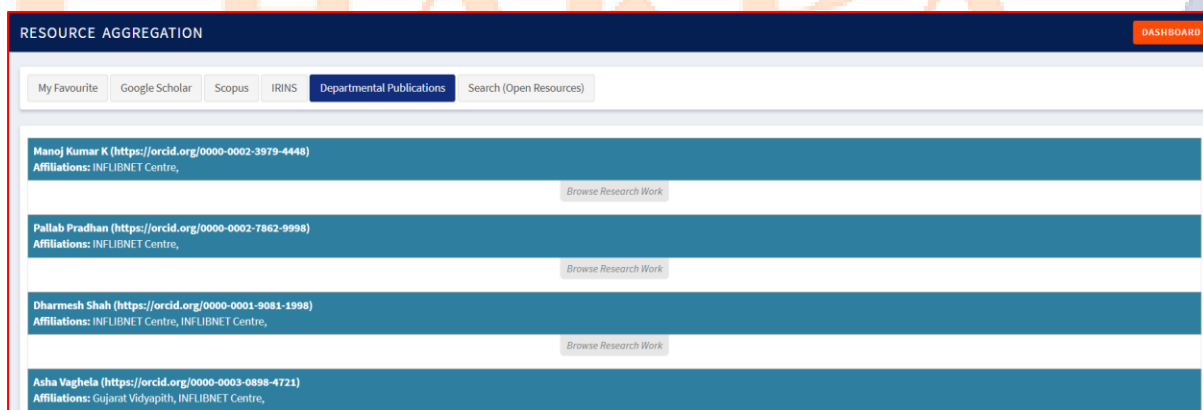


Figure 21: Favourite Resources – Department Resources

Open Resources: The fifth tab helps researchers to find out bibliographic information of the documents that are published in open access. Shodh-Chakra will populate metadata of the resources and full text can be accessed using DOI for individual article.

The screenshot shows a search interface with the following details:

- Page Header:** RESOURCE AGGREGATION (left), DASHBOARD (right)
- Navigation:** My Favourite, Google Scholar, Scopus, IRINS, Departmental Publications, Search (Open Resources)
- Search Criteria:** Journal Article, computer
- Results:** A list of 10 journal articles from IEEE, including titles like "The IEEE Computer Society's Ninth International Computer" and "Computer Magazine Introducing the Computer Editorial Board...".

Figure 22: Favourite Resources – Open Resources

E. Publications (Journal/Workshop/Conference)

As per current guidelines of the UGC, it is mandatory for a research scholar to publish articles in journals, conferences, and seminar/workshops. Research scholars are not aware of how many journals published; conferences being organized. The publication section would help researchers to search and add to favourite journals, conferences and workshops/seminars in which they can submit their research paper for publication and presentation.

My Favourite Journal: ‘My Favourite Journal’ will list out all the journals that have been marked as favourite. Researcher can save his favourite/required journal.

The screenshot shows the 'MY FAVOURITE JOURNAL' section with the following details:

- Page Header:** SHODH CHAKRA logo, INFLIBNET Centre logo, and text: "An initiative by INFLIBNET Centre (An Inter-University Centre of UGC)".
- Navigation:** My Favourite Journal, Journals, Workshop/Conferences, Add Your Publication/Workshop/Conferences
- Journal 1:**
 - Journal title: Ruan Jian Xue Bao/Journal of Software
 - ISSN: 10009825, E-ISSN: -
 - Publisher name: Chinese Academy of Sciences
 - Languages: ENG
 - Source: Scopus
- Journal 2:**
 - Journal title: Studies in Humanities and Social Sciences
 - ISSN: 0972-1401, E-ISSN: -
 - Publisher name: Indian Institute of Advanced Study
 - Languages: -
 - Source: UGC Care List

Figure 23: My Favourite Journal

Journal: The journal tab will facilitate the researcher to search journals by title and keywords. The results will be fetched from UGC Care List, Scopus, and Web of Science. The researcher may select a relevant journal and mark it as favourite as shown in figure 24 below.

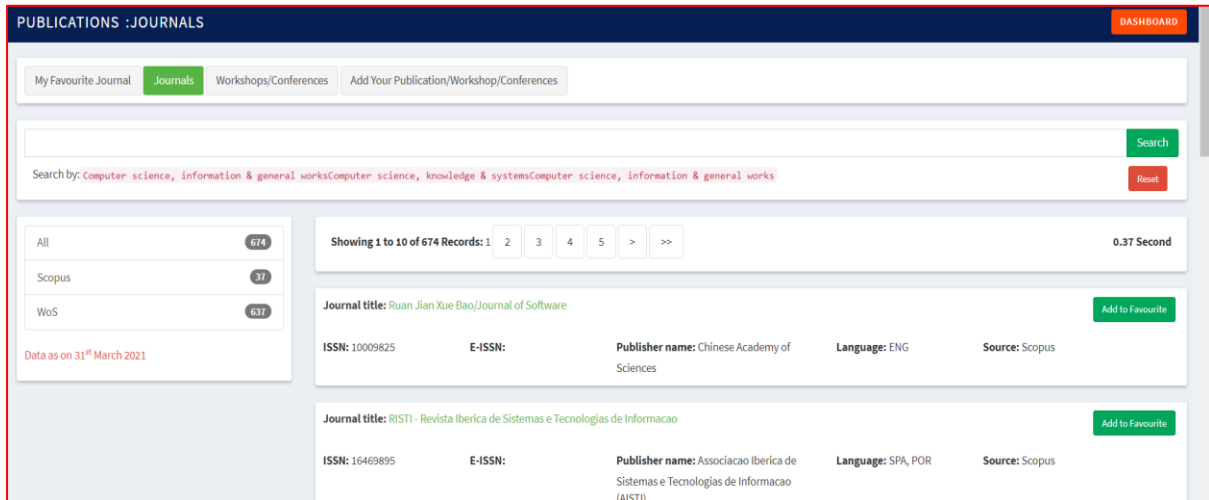


Figure 24: Search Journals

Workshop and Conference: As per prevailing UGC, guidelines the researcher has to present at least one research paper at the conference. It is slightly difficult to identify the upcoming conferences in different fields. The Shodh-Chakra gathers data from the academic institutions on upcoming conferences and provides a list under the workshop and conference tab. The researcher can mark it as favourite for further use.

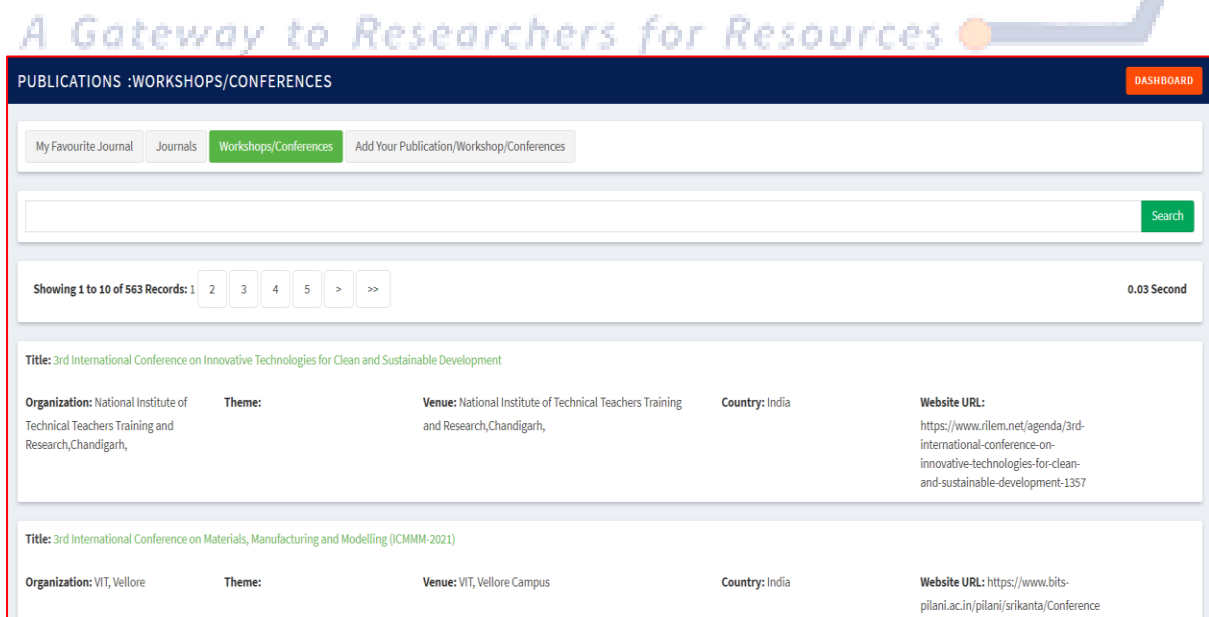


Figure 25: Workshops and Conferences

Add Your Publication: Researcher can store list of publications that are published in journals and conference proceedings. This feature will help researcher to list out all personal publication at one place.

The screenshot shows a web interface for managing publications. At the top, there's a navigation bar with 'DASHBOARD' and a menu with 'My Favourite Journal', 'Journals', 'Workshops/Conferences', and 'Add Your Publication/Workshop/Conferences'. Below this is a form with fields for Source, Title, Authors, Publisher, Date, Language, and URL. There are 'Save' and 'Cancel' buttons. Below the form is a table with columns: SrNo, Title, Authors, Publisher, Source, Date, Language, URL, and Action. The table contains three entries:

SrNo	Title	Authors	Publisher	Source	Date	Language	URL	Action
1	Impact of NIRF on research publications: A study o	Abhishek Kumar, Sanjay Tiwari, Ashish Kumar, Chauhan	COLLNET Journal of Scientometrics and Information	Journal Article	03-07-2019	English	https://www.tandfonline.com/doi/full/10.1080/09737766.2020.1741194	[Edit] [Delete]
2	Implementation of learning analytics framework for	Ramesh Naidu Laveti, Swetha Kupplij, Janaki Ch, Supri	IEEE	Conference Paper	01-08-2017	English	http://ieeexplore.ieee.org/document/8074997/	[Edit] [Delete]
3	Colon Classification	S. R. Ranganathan	Asia Publishing House	Book	01-12-	English		[Edit] [Delete]

Figure 26: Adding Research Publications/Conference Papers

F. Reference Management

Reference management for the collected/referred literature is an important task. It is necessary to cite all the documents that are referred for an ongoing research work. The Shodh-Chakra has integrated Zotero Reference Management tool for managing all resources that are used in the research work.

A Gateway to Researchers for Resources

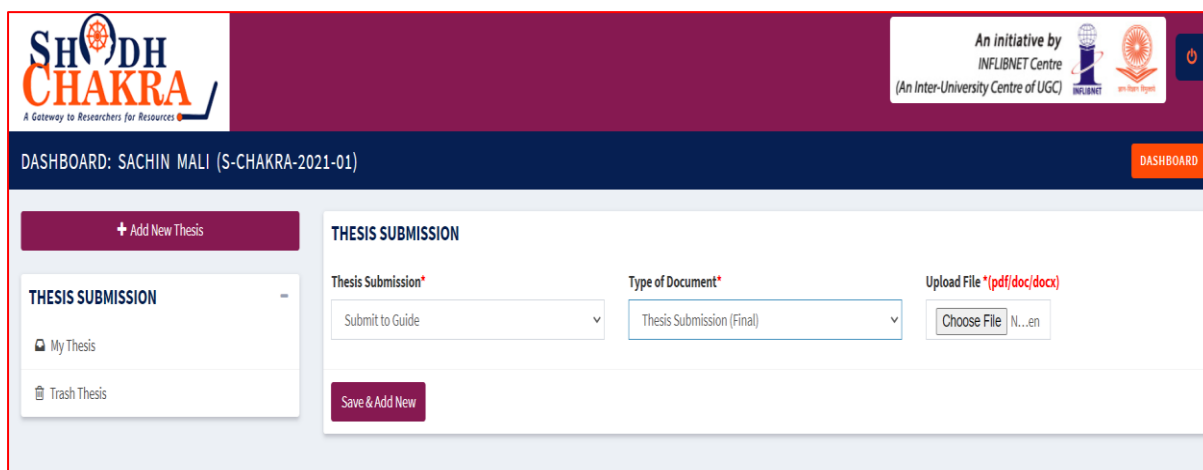
The screenshot shows the 'REFERENCE MANAGEMENT' dashboard. At the top, there's a navigation bar with 'DASHBOARD' and a menu with 'Download Bibliography Report' and 'Print Bibliography Report'. Below this is a list of references added via Zotero. The references are grouped by topic:

- Morphological Studies of the Deccan Intertrappean Flora of Mohgaonkalan M P India**
 - Z "ScienceDirect Snapshot." Accessed May 15, 2020. <https://www.sciencedirect.com/science/article/pii/S1546144020301502>.
 - Z Kooraki, Soheil, Melina Hosseiny, Lee Myers, and Ali Gholamrezaezhad. "Coronavirus (COVID-19) Outbreak: What the Department of Radiology Should Know." *Journal of the American College of Radiology* 17, no. 4 (April 1, 2020): 447-51. <https://doi.org/10.1016/j.jacr.2020.02.008>.
- Studies on Evaluation and Identification of Bread Wheat/Triticum Aestivum L Under Moisture Stress Condition**
 - Z "Coronavirus: Athawale's 'Go Corona' Chant Video Goes Viral." *The Hindu*. March 10, 2020, sec. National. <https://www.thehindu.com/news/national/coronavirus-athawales-go-corona-chant-video-goes-viral/article31031072.ece>.
 - Z "Snapshot." Accessed May 15, 2020. <https://www.thehindu.com/sci-tech/health/coronavirus-the-hindu-brings-out-e-book-on-essential-covid-19-information/article31122298.ece>.
- Computing versus human thinking**
 - Z "Snapshot." Accessed May 15, 2020. <https://www.thehindu.com/news/resources/the-hindus-e-book-on-covid-19-in-multiple-indian-languages/article31174374.ece>.
 - Z "Coronaviruses, Volume 96 - 1st Edition." Accessed May 15, 2020. <https://www.elsevier.com/books/coronaviruses/ziebuh/978-0-12-804736-1>.

Figure 27: Adding References

G. Thesis Submission

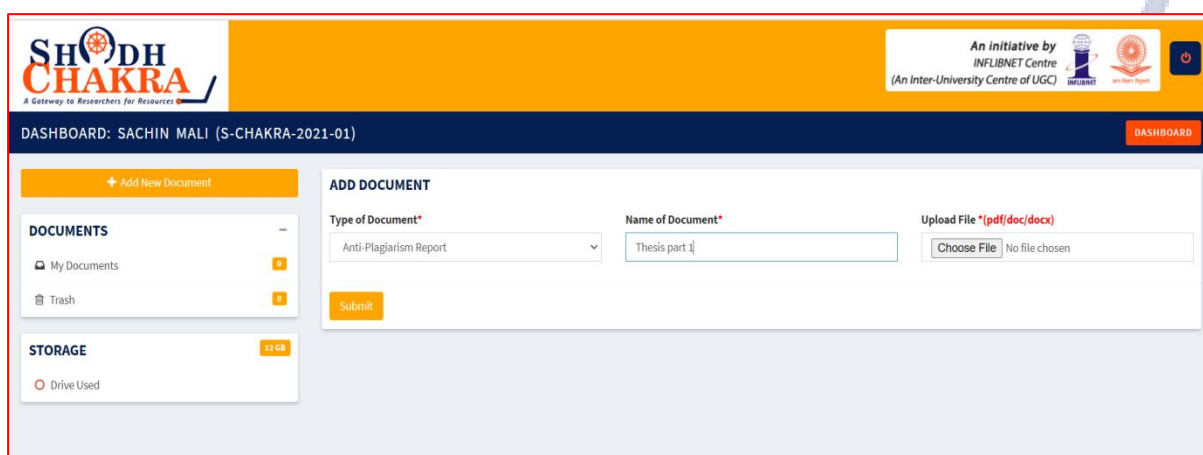
The final step in the research journey of a research scholar is the submission of a thesis to the university for the award of degree. The research scholar will be able to submit all the documents such as registration receipt, pre-submission report, course work completion certificate, plagiarism report, and finally thesis through Shodh-Chakra. The researcher can submit documents to the Guide only as well as Guide and University both.



The screenshot shows the 'THESIS SUBMISSION' dashboard for user SACHIN MALI (S-CHAKRA-2021-01). The interface includes a sidebar with 'My Thesis' and 'Trash Thesis' options. The main content area has a 'THESIS SUBMISSION' header and a form with the following fields: 'Thesis Submission*' (dropdown menu with 'Submit to Guide' selected), 'Type of Document*' (dropdown menu with 'Thesis Submission (Final)' selected), and 'Upload File *(pdf/doc/docx)' (file upload button with 'Choose File' and 'No file chosen' text). A 'Save & Add New' button is located below the form.

Figure 28: Thesis Submission

Documents: Researcher can store full text documents in the 'Drive' under 'My Library' section. These documents can be shared with research supervisor.



The screenshot shows the 'ADD DOCUMENT' dashboard for user SACHIN MALI (S-CHAKRA-2021-01). The interface includes a sidebar with 'My Documents' (1 item) and 'Trash' (1 item) options, and a 'STORAGE' section showing 'Drive Used' (1.7 GB). The main content area has an 'ADD DOCUMENT' header and a form with the following fields: 'Type of Document*' (dropdown menu with 'Anti-Plagiarism Report' selected), 'Name of Document*' (text input field with 'Thesis part 1' entered), and 'Upload File *(pdf/doc/docx)' (file upload button with 'Choose File' and 'No file chosen' text). A 'Submit' button is located below the form.

Figure 29: Submission Related Documents

Full Text Thesis: The 'My Library' contains all the resources that are marked as favourite by different categories. Full text thesis retrieved from Shodhganga and marked as favourite will be displayed in the full text Thesis tab.

The screenshot shows the 'MY FAVOURITE RESOURCES/JOURNAL' page with the 'Full text thesis' tab selected. It displays two entries:

- Entry 1:**
 - Title: Morphological Studies of the Deccan Intertrappean Flora of Mohgaonkalan M P India
 - University: Sant Gadge Baba Amravati University
 - Department/Subject: Botany
 - Author: Bobade M B
 - Guide/Organization: Upadhye E V
 - Level: || Source : Shodhganga || Language: Not Mentioned
- Entry 2:**
 - Title: Studies on the effect of antibacterial activity and anticancer activity of Aegle Marmelos, Solanum Nigrum and Cassia Fistula
 - University: Bharath University
 - Department/Subject: Biotechnology
 - Author: Venkatesan, D
 - Guide/Organization: Karrunakaran, C M
 - Level: || Source : Shodhganga || Language: Not Mentioned

Figure 30: My Favourite – Full Text Thesis

Knowledge resources: The resources that are marked as favourite under knowledge resource are displayed under ‘My Library’ → ‘Knowledge Resources’ tab.

The screenshot shows the 'MY FAVOURITE RESOURCES/JOURNAL' page with the 'Knowledge Resources' tab selected. It displays one entry:

- Entry 1:**
 - Title: Creation of self-organized gold nanostructures by keV ion beam irradiation
 - Author: Singh, U. B. | Agarwal, D. C. | Khan, S. A. | Tripathi, A. | Kumar, Ajay | Choudhury, R. K. | Panigrahy, S. | Singh, R. K. | Singh, R. K. | Singh, R. K. | Singh, R. K.
 - Publication: Radiation Effects and Defects in Solids
 - ISSN: 0022-3465
 - EISSN: 1362-1717
 - Resource Type: Conference Paper || Volume : 166 || Page Range : 553-557

Figure 31: My Favourite – Knowledge Resources

Notes: Researchers can create notes in the ‘Note’ in ‘Guide Interaction’. This will help research scholar and guide to discuss research related matters on the portal. Researcher and Guide both can create and share notes with each other.

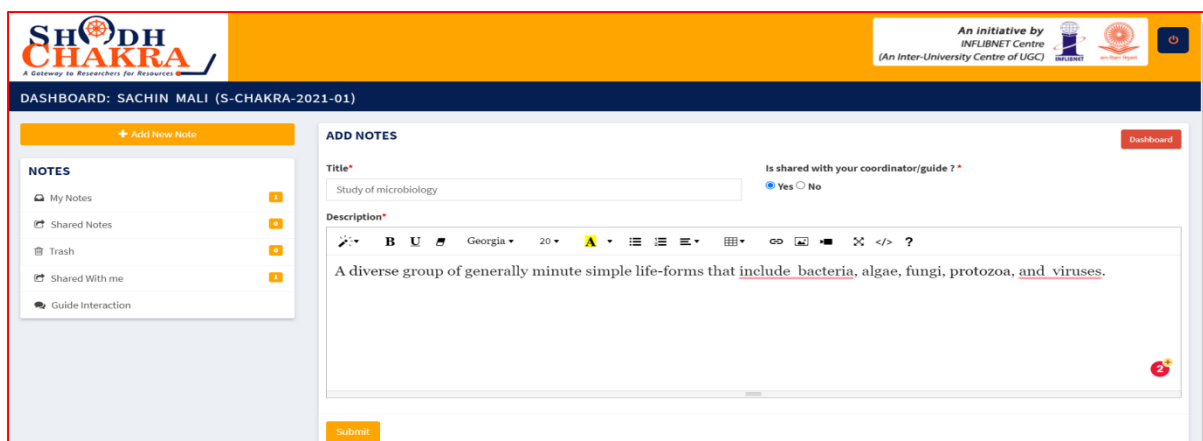


Figure 32: My Favourite – Creating Notes

The notes shared by Guide can be viewed under Shared Notes option available in interaction with guide section as shown in the figure 36 below.

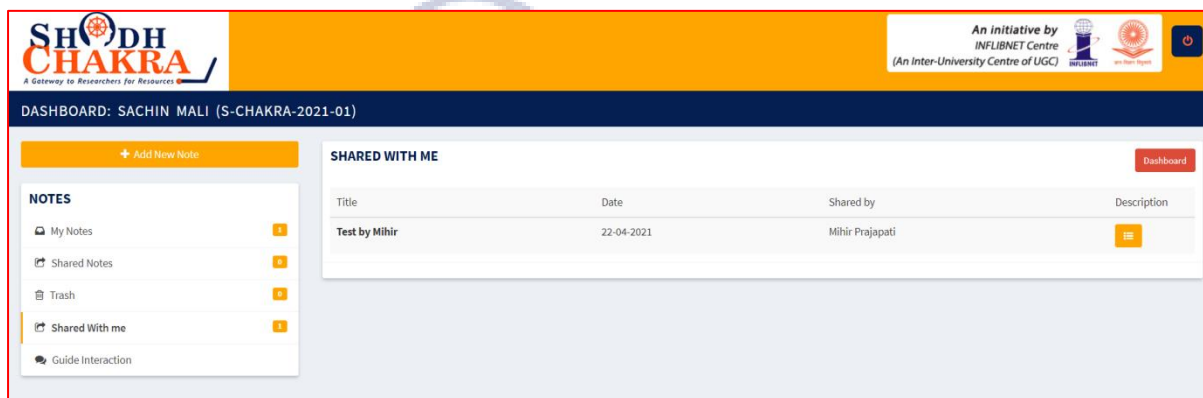


Figure 33: My Favourite – Shared Notes