

Open access institutional repositories in India: insights from the OPENDOAR

Research – Full text

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Abstract

Purpose: This paper aims to investigate the status of open access institutional repositories (OAIRs) in India as listed in the Directory of Open Access Repositories (OpenDOAR). Relevant data from OpenDOAR focuses on key repository characteristics, including year-wise growth, subject coverage, content types, Location/state-wise distribution, and software used. Findings show the number of libraries in India that have registered institutional repositories in OpenDOAR.

Methodology/Approach: This paper applies a descriptive research approach. Relevant data were collected from the OpenDOAR website (<https://opendoar.ac.uk/>) as of July 23rd, 2025. The collected data were analyzed, designed, and presented through tables and charts to identify trends and patterns across different parameters and the status of registered institutions in OpenDOAR.

Results: A total of 24 institutional repositories from India were registered and examined. Institutional repositories accounted for the 5th place (20.83%), with the highest numbers registered in 2011 and 2015, respectively, and no registrations in 2008, 2009, 2012, 2016, 2017, 2018, and 2020-2023. Out of 28 States and 8 Union territories of India, only 9 state institutions were registered. The most dominant state was Karnataka, with 6 (25.00%), and the least dominant states were Kerala and Rajasthan, with 1 (4.17%) each. Science & technology and social sciences emerged as the most representative subjects. Journal articles, theses, and dissertations made up the majority of the repository's content. DSpace was the dominant software used.

Pragmatic Implications: The discovery of this paper offers valuable insights for repository developers, policymakers, and academic/Non-academic institutions in India, guiding them to strengthen open access infrastructure and enhance research visibility, thereby influencing the registration of more repositories in OpenDOAR.

Value/Originality: This paper provides a well-focused assessment of India's Contribution to global open access through institutional repositories, setting benchmarks for its progress and identifying areas for development.

Keywords

Open Access; Institutional repositories; OpenDOAR; India; Software

1. Introduction

Today, institutional repositories are essential for advancing higher education and fostering research and development. An "institutional repository" refers to a digital collection that is carefully curated and managed, showcasing the work of an institution's faculty, staff, and students (Velmurugan, 2010). Institutional repositories are advanced technologies that enable knowledge sharing and management in academic and research institutions (Doctor, 2008; Nayak & Parhi, 2021). Institutional repositories are digital collections of intellectual production that are captured and preserved within single or multi-university communities (Crow, 2002; Hockx-Yu, 2006). The establishment of open institutional archive repositories offers a promising strategy for disseminating analysis findings across many developed countries (Ezema, 2011). Institutional repositories will help academic institutions and repository administrators to bring about improved investment decisions (Wirba et al., 2013). The Directory of Open Access Repositories (Open DOAR) is administered by SHERPA Services, which is based at the Centre for Research Communications at the University of Nottingham, United Kingdom (vyas, 2013). Open DOAR is a directory that has been freely available since its launch in 2005. It facilitates the search, identification, and retrieval of repositories organized by country, thereby enhancing accessibility to various academic and institutional resources (Singh et al., 2020). DOAR is an initiative focused on the development and maintenance of a comprehensive metadata harvesting service for all resources governed by the Open Archives Initiative Protocol for Metadata Harvesting (OAIPMH) globally.

2. Literature review

Pradhan and Mohapatra (2025) investigated the status and impact of Open Access Institutional Repositories (OAIRs) in Ukraine using data from the Directory of Open Access Repositories (OpenDOAR). Their analysis covered parameters such as growth trends, repository type, disciplines, content, age of repositories, and software used. Findings revealed that out of 98 repositories, peak registrations occurred in 2019 (96.94%). DSpace being the most commonly used software (88.78%). The study highlights the role of OAIRs in advancing scholarly communication in Ukraine.

Pradhan and Mohapatra (2024) investigated the status and impact of Open Access Institutional Repositories (OAIRs) in Australia using data from the Directory of Open Access Repositories (OpenDOAR). Their analysis covered parameters such as growth trends, repository type, disciplines, content, age of repositories, and software used. Findings revealed that out of 84 repositories, peak registrations occurred in 2006 (30.95%) and 2019 (16.67%). Most repositories were institutional (86.90%), with DSpace being the most commonly used software (23.81%). The study highlights the role of OAIRs in advancing scholarly communication in Australia.

Parrayet al. (2023) explored the status and characteristics of Open Access Repositories (OARs) in India and China using data from Open DOAR. The study analyzed repository type, software, interface language, year of development, subject and content coverage, and Web 2.0 tool usage. Findings revealed that India ranks 4th and China 5th among Asian countries by repository count, with institutional repositories being predominant in both. DSpace and English

were commonly used, and Web 2.0 tools like RSS and Atom were moderately adopted. The study emphasizes the need for more diverse repository types and suggests policy-level improvements to strengthen green open access initiatives.

Nayak et al. (2021) analyzed the status of open-access institutional repositories in Shanghai Cooperation Organisation (SCO) countries. Among 214 repositories studied, the highest registrations occurred in 2011 (16.82%) and 2019 (15.89%). DSpace was the most commonly used software (61.21%), followed by EPrints (16.36%). English was the dominant interface language (52.15%), with Russian as the next preferred (18.48%).

Nayak and Mohapatra (2021) analyzed Open Access Institutional Repositories (OAIRs) in BIMSTEC countries using OpenDOAR data. They examined repository type, content, discipline, language, and software. Most repositories were registered in 2013 and 2019 (12% each), with English as the primary interface language (71.14%). DSpace (67.33%) was the most used software. India led with 65.33% of the repositories. Journal articles (23.27%) and theses (17.40%) dominated the content, while multidisciplinary subjects were most common (22.60%). The study highlights India's key role in BIMSTEC's OA growth.

Kuri and Singh (2020) analyzed the prominence of Indian Open Access Institutional Repositories (OAIRs) listed in the Directory of Open Access Repositories (DOAR). Out of 5,414 global repositories, 96 were from India. The study examined repository software, content type, item size, language, and policy framework. It highlighted India's contributions across repository types and disciplines, emphasizing the role of OAIRs in supporting academic visibility and collaboration. The authors also discussed the opportunities and challenges facing OAIR development in the Indian academic landscape.

Das and Singh (2017) examined the status of Open Access Institutional Repositories (OAIRs) in China through a case study approach. Using data from the Directory of Open Access Repositories (OpenDOAR), they analyzed repositories based on number, type, subject coverage, content, and software used. The study provides insights into China's contribution to open access and its role in the global scholarly communication landscape.

3. Objectives

1. To analyze the year-wise distribution of institutional repositories in India.
2. To identify the State-wise contribution of Indian state in OpenDOAR
3. To examine the distribution of Indian repositories in the OpenDOAR based on Discipline wise
4. To examine the distribution of Indian repositories in the OpenDOAR based on Content wise
5. To identify the types of software platforms used for institutional repositories in India.

4. Scope and limitations

This study focuses on open-access institutional repositories registered in the Directory of Open Access Repositories (DOAR). To assess India research contributions, the scope is limited to

repositories registered by Indian institutions. Only those repositories listed in OpenDOAR as of 23rd July 2025 have been included and analyzed for this study.

5. Methodology

The study aims to evaluate India's contribution to open-access institutional repositories. Data were sourced from the Directory of Open Access Repositories (DOAR) available at https://opendoar.ac.uk/search?type=repositorySearch&term=India&page=1&per_page=10, accessed on August 23rd, 2025. Relevant information was collected from the website and systematically analyzed. The data were presented using tables and graphical charts under various sub-headings, including year-wise distribution, repository types, software used, subject-wise categorization.

6. Result and discussion

According to the data collected, the authors conducted the analysis across various segments, including the necessary tables, figures, and graphical representations, which are outlined below.

6.1 The Year-wise Growth Mapping

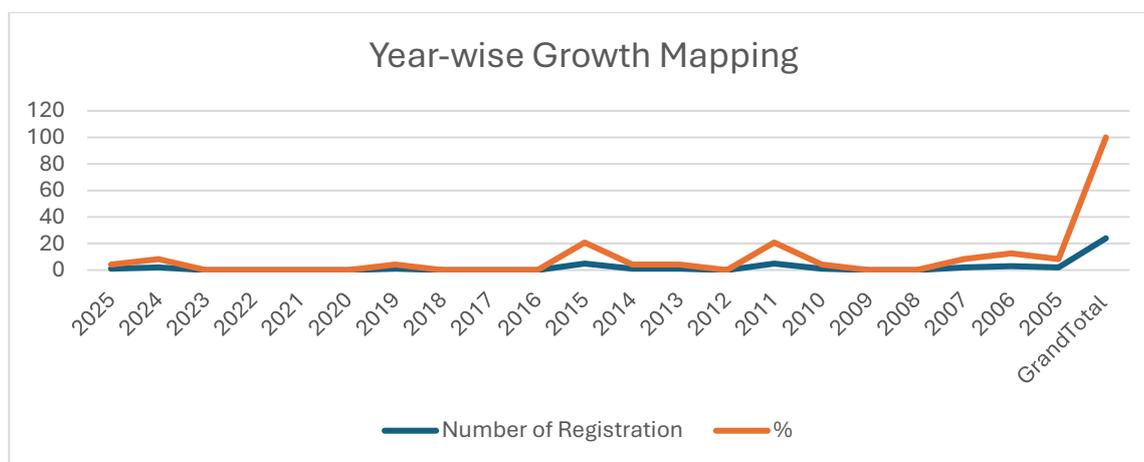
Table 1 and Figure 1 show the annual growth rate of institutional repository registrations in OpenDOAR. It was found to be the highest among the 24 institutional repositories. That is, 5 (20.83 %) institutional repositories were registered in 2011 and 2015 each, followed by 3 (12.5%) repositories in 2006. 2 (8.33%) repositories in 2005, 2007 and each, 1 (4.16%) in 2010, 2013, 2014, 2019, and 2025 respectively. And no institutional registry registered in year 2008, 2009, 2012, 2016, 2017, 2018 and 2020-2023. The analysis clearly shows an inconsistent growth in institutional repository registrations in OpenDOAR.

Table-1: Year-wise Growth Mapping of Institutional Repository in OpenDOAR

Year of Registration	Number of Registration	%
2025	1	4.17
2024	2	8.33
2023	0	0.00
2022	0	0.00
2021	0	0.00
2020	0	0.00
2019	1	4.17
2018	0	0.00
2017	0	0.00
2016	0	0.00
2015	5	20.83
2014	1	4.17
2013	1	4.17

2012	0	0.00
2011	5	20.83
2010	1	4.17
2009	0	0.00
2008	0	0.00
2007	2	8.33
2006	3	12.50
2005	2	8.33
Grand Total	24	100.00

Figure-1: Year-wise Growth Mapping of Institutional Repository in OpenDOAR



6.2 The State-wise institution contribution in OpenDOAR

Table 2 and Figure 2 shows the *Out of 28 States and 8 Union territories of India Only 9 states institution were registered in OpenDOAR the highest dominated state were Karnataka 6 (25.00%) and lowest dominated state were Kerala and Rajasthan 1(4.17) respectively.* The analysis clearly shows that the less states to be registered in institutional repository in OpenDOAR.

Table-2: State-wise institution contribution in OpenDOAR

State	Number of Registration	%
Karnataka	6	25.00
Gujarat	3	12.50
Delhi	3	12.50
Telangana	3	12.50
Uttarakhand	3	12.50
Maharashtra	2	8.33
West Bengal	2	8.33
Kerala	1	4.17
Rajasthan	1	4.17
Grand Total	24	100

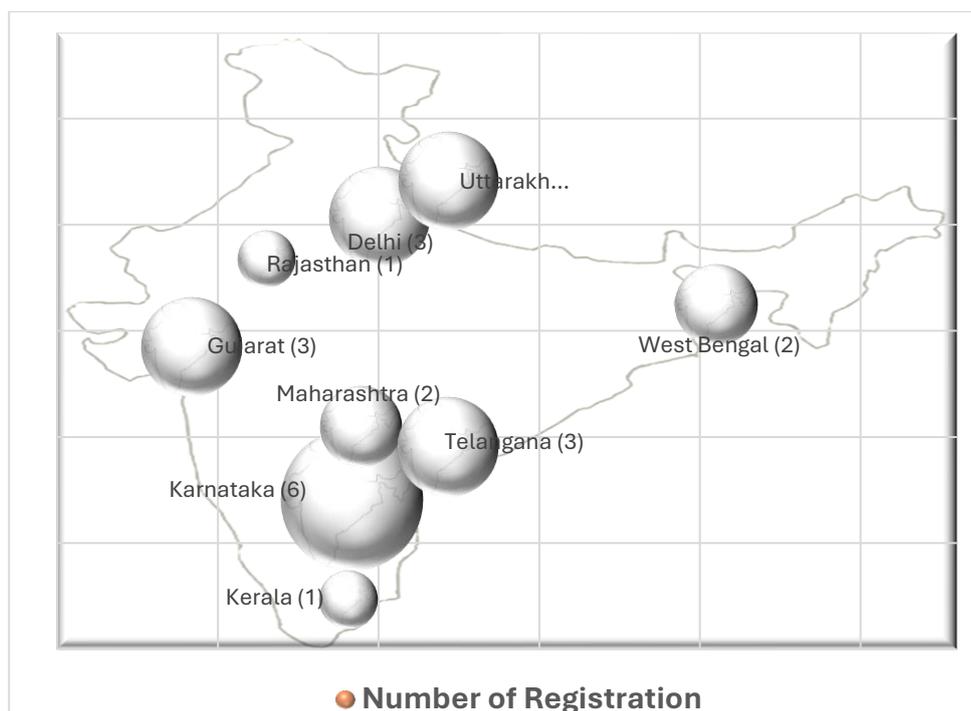
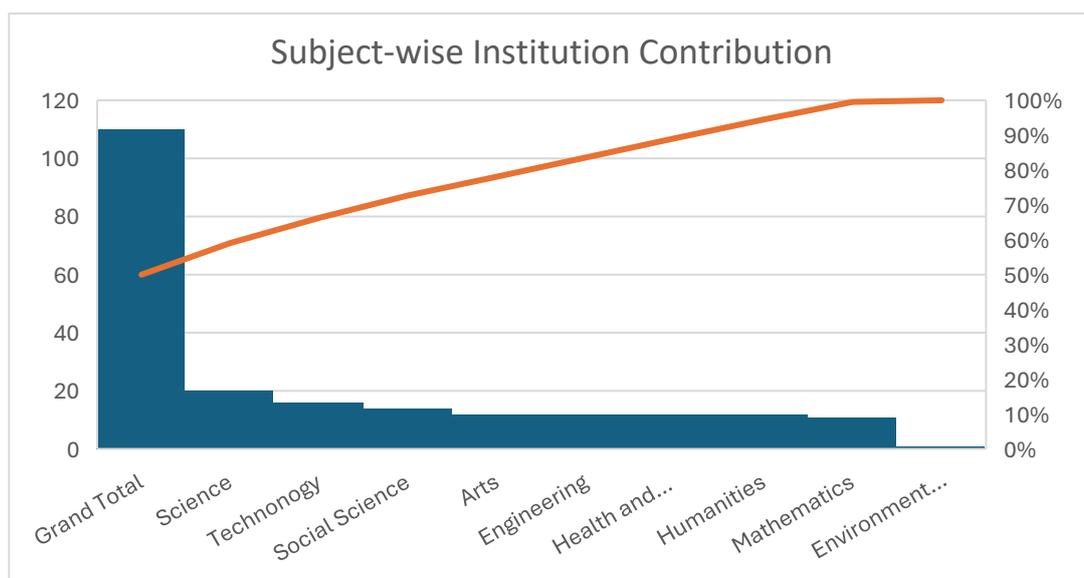
Figure-2: State-wise institution contribution in OpenDOAR**6.3 The Subject-wise institution contribution in OpenDOAR**

Table 3 and Figure 3 shows the 9 subjects to be widely cover *institution* were registered in OpenDOAR the highest dominated Subject were Science 20 (18.18%) follow them Technology 16(14.55%), Social Science 14 (12.73%) and lowest dominated Subject were Environment Science 1(0.91%) respectively.

Table-3: Subject-wise institution contribution in OpenDOAR

Subject	No. of Institution	%
Science	20	18.18
Technology	16	14.55
Social Science	14	12.73
Arts	12	10.91
Engineering	12	10.91
Health and Medicine	12	10.91
Humanities	12	10.91
Mathematics	11	10.00
Environmental Science	1	0.91
Grand Total	110	100.00

Figure-3: Subject-wise institution contribution in OpenDOAR



6.4 The Resource types

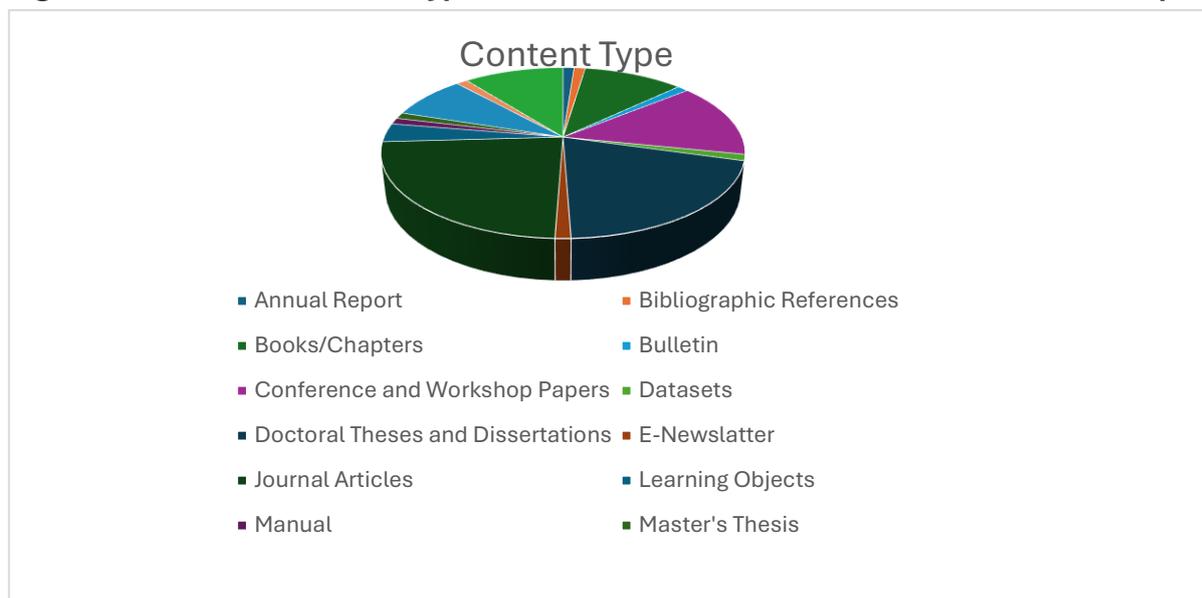
institution contribution in OpenDOAR

Table 4 and Figure 4 shows the coverage of content types found in institutional repositories registered by India in OpenDOAR. The content categories are shown along with their frequency and cumulative progress. Journal articles emerged as the most common content type 20 (23.53%). The analysis indicate that the authors were primarily inclined towards contributing journal articles over other types of content.

Table-4: Resource types institution contribution in OpenDOAR

Content Type	Number
Journal Articles	20
Doctoral Theses and Dissertations	17
Conference and Workshop Papers	12
Books/Chapters	9
Reports and Working Papers	9
Other Special Item Types	7
Learning Objects	3
Annual Report	1
Bibliographic References	1
Bulletin	1
Datasets	1
E-Newsletter	1
Manual	1
Master's Thesis	1
Patents	1
Grand Total	85

Figure-4: Resource types institution contribution in OpenDOAR

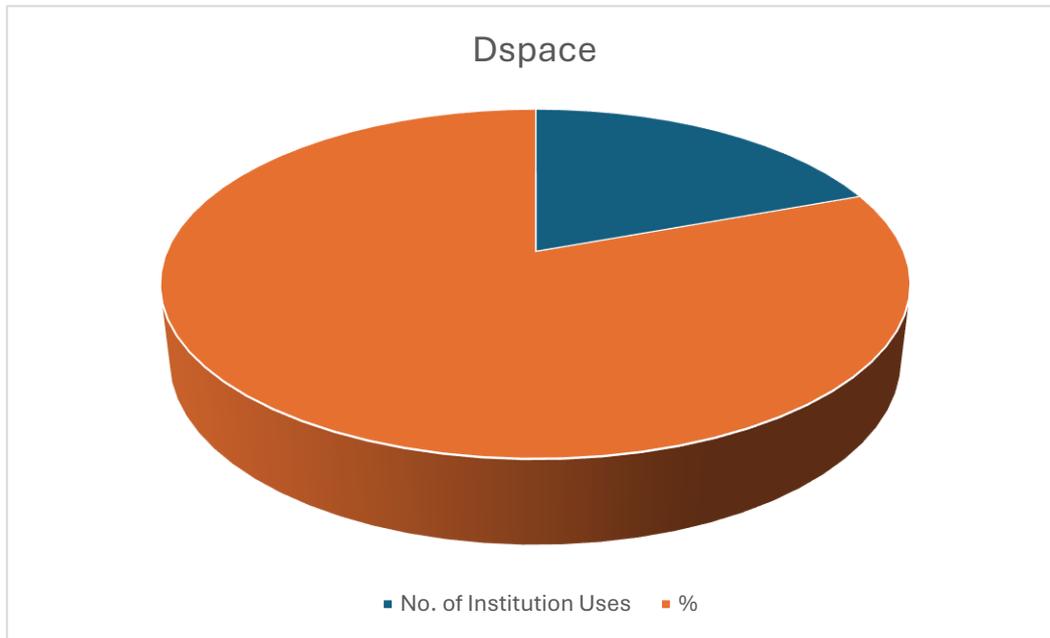


6.5 Software Usage of Repositories in OpenDOAR

Table 5 and Figure 5 shows the distribution of the software used for the development of Institutional repositories in India. The most widely used software is the open-source application DSpace 19 (79.16%) and E print with 5 (20.83%).

Table-5: Software Usage of Repositories in OpenDOAR

Software	No. of Institution Uses	%
DSpace	19	79.16
Eprints	5	20.83
Grand Total	24	100

Figure-5: Software Usage of Repositories in OpenDOAR

7. Conclusion

Open access initiatives and Institutional repositories in India have been introduced in most of the universities, Higher education institutions and research institutions, lack of registration in OpenDOAR is a big concern of institutional repositories and open access initiative, need to be enriched with more content. Repository developers in the future should give more attention to enrich the quality of collections. Registering repositories in OpenDOAR is also imperative to realize the option of a one-stop search interface for readers of scientific publications and researchers investigating on repositories. Besides, the extent and pattern of usage and perception on the use of these repositories also have to be investigated to foster and sustain the quality of repositories.

This study recommends that more institutional repositories be registered in OpenDOAR, and that institutions formulate their own open access policy and make open access mandatory in order to maximize the openness of scholarly output of such institutions.

8. References

- Crow, R. (2002). The case for institutional repositories: A SPARC position paper. Scholarly Publishing and Academic Resources Coalition, Washington, DC. http://www.arl.org/sparc/bm~doc/ir_final_release_102.pdf
- Das, K. C. & Singh, K. (2017). Current status of Chinese open access institutional repositories: A Case Study. *International Research: Journal of Library and Information Science*, 7(1).
- Doctor, G. (2008) Capturing intellectual capital with an institutional repository at a business school in India. *Library Hi Tech*, 26(1), 110- 125. <https://doi.org/10.1108/07378830810857843>

- Ezema, I. J. (2011). Building open-access institutional repositories for global visibility of Nigerian Scholarly publications. *Library Review*, 60(6), 473 -48. <https://doi.org/10.1108/00242531111147198>.
- Hockx Yu, H. (2006). Digital preservation in the context of institutional repositories. *Electronic Library and Information Systems*, 40(3), 232-243.
- Kuri, R. & Singh, M. (2020). Indian institutional repositories (IRs) reflected in the directory of open access repository (DOAR): a case study. *Library Philosophy and Practice*, 46-10.
- Nayak. S., Patel, A. K., Patel, A. K. & Pradhan. B (2021). Promoting educational research through an open access institutional repository of Shanghai Cooperation Organisation (SCO) countries: an analytical study. *Library Philosophy and Practice*, 5064.
- Nayak, S. & Mohapatra, M. (2021). Enhancing the Scholarly Communication through an Open Access Institutional Repository of BIMSTEC Countries: An Analytical Study. *Library Philosophy and Practice*, 6218.
- Pradhan P, Pradhan A. K. & Mohapatra N. (2025). Evaluating Open-access institutional repositories in Ukraine: Insights from the OPENDOAR. *Journal of Library and Information Communication Technology*, 14(1). <https://10.5958/2456-9399.2025.00001.8>.
- Pradhan, A. K. & Mohapatra, N. (2024). Analysing the impact or an open-access institutional repository on scholarly Communication in Australian countries. *Journal of Library and Information Communication Technology*, 13(2), 66-76. <https://10.5958/2456-9399.2024.00019.4>.
- Parray, U. Y., Khan, A. M Mir, A. A., & Mir, S. M. (2023). Unveiling the present status of open access repositories: a comparative analysis of India and China. *Library management*, 44(1/2), 120-132. <https://10.1108/LM-09-2022-0084>.
- Satyajit N. & Parhi, B. K. (2021). Assessment of Open-Access Institutional Repositories of China on Directory of Open Access Repositories (OpenDOAR). *Library Philosophy and Practice*, 5315.
- Velmurugan, C. (2010). Institutional Repositories: A powerful tool for accessing information for educationalists. *Proceedings of the Next-Generation Digital Libraries and web technologies: challenges and opportunities*, Sri Krishna College of Engineering & Technology, Coimbatore, 6.92-6.97.
- Vyas, J. R. (2013). Study of Indian Repositories on DOAR. *International Research: Journal of Library & Information Science*, 3(2), 324-339.