



A WEBOMETRIC STUDY OF NIRF INDIA RANKING 2023 TOP 20 COLLEGE LIBRARY WEBPAGES RANKED UNDER COLLEGE CATEGORY

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Abstract :

In the current age of digitization and the use of online services, websites plays an important role in the dissemination of information to the users. The library webpages offers platform to the users to navigate the related information about library. The National Institutional Ranking Framework (NIRF) plays an important role in evaluating and ranking various higher education institutions in India. This study presents a webometric study focused on the top 20 college library webpages, listed in NIRF India Ranking 2023, under the college category. Study examines the domain, domain age, internal and external links and total links, web impact factor, global and India rank of the top 20 college library webpages. To collect data for this study, smallseotools.com and similarweb.com had used to find out domain age, domain authority, page authority and total, internal and external links and global and India rank of college library websites covered in this study.

Keywords: Webometric study, Website analysis, Webometric analysis, NIRF Ranking 2023, Library webpages, Domain & Page Authority, Web Impact Factor, Global Rank, India Rank.

Introduction :

In the current age of digitization and the use of online services, library websites plays an important role in the dissemination of information to the users. Library is the heart of any Institution. Library webpages provides the information of the library services and resources. It is the easiest way to find the information through simple search on internet without going to library. Library webpages facilitating seamless access to academic resources of users need. The National Institutional Ranking Framework (NIRF) plays an important role in evaluating and ranking various higher education institutions in India. In this study, the researcher studied the webometric study of the library webpages of the top twenty college library webpages ranked in NIRF 2023.

The National Institutional Ranking Framework (NIRF) :

The National Institutional Ranking Framework (NIRF) is an initiative by the Ministry of Education, Government of India. Its function to assess and rank higher education institutions in India based on measurable criteria. NIRF was introduced to foster a culture of competition among institutions, promote excellence in higher education, and provide stakeholders with reliable data for decision-making. NIRF annually publishes institutions ranking on a wide range of parameters such as teaching, learning and resources, research and professional practice, Graduation Outcomes, Outreach and Inclusivity, and Perception. The study includes the top 20 college websites in India listed in the college category in NIRF Rankings 2023. This study builds webometric analysis with the help of webometric tools focusing on library web pages.

Table 1: National Institutional Ranking Framework (NIRF) ranking colleges in year-2023



| Ran k | NIRF ranking 2021 colleges | City | State | Library web page |
|----------|--|------------|-------------|---|
| 1 | Miranda House | Delhi | Delhi | https://www.mirandahouse.ac.in/facilities/library.php |
| 2 | Hindu College | Delhi | Delhi | https://hinducollege.ac.in/library.aspx |
| 3 | Presidency College | Chennai | Tamil Nadu | https://www.presidencycollegechennai.ac.in/UI/DepartmentPage.aspx |
| 4 | PSGR Krishnammal College for Women | Coimbatore | Tamil Nadu | https://www.psgrkwc.ac.in/gr-govindarajulu-memorial-general-library/ |
| 5 | St. Xavier's College | Kolkata | West Bengal | https://www.sxccal.edu/central-library/ |
| 6 | Atma Ram Sanatan Dharm College | New Delhi | Delhi | https://www.arsdcollege.ac.in/index.php/aboutlibrary/ |
| 7 | Loyola College | Kolkata | West Bengal | https://www.loyolacollege.edu/library/profile |
| 8 | Rama Krishna Mission Vivekananda Centenary College | Rahara | Wes Bengal | https://rkmvccraha.org/viewalllist.aspx?id=29 |
| 9 | Kirori Mal College | Delhi | Delhi | http://kmclibrary.saraswatilib.com/ |
| 10 | Lady Shri Ram College For Women | New Delhi | Delhi | https://lsr.edu.in/students/facilities/library/ |
| 11 | Shri Ram College of Commerce | Delhi | Delhi | https://www.srcc.edu/library |
| 12 | Hans Raj College | Delhi | Delhi | https://www.hansrajcollege.ac.in/infrastructure/library |
| 13 | Sri Venkateswara College | Delhi | Delhi | http://www.svc.ac.in/SVC_MAIN/Library/library.php |
| 14 | St. Stephens's College | Delhi | Delhi | https://www.ststephens.edu/library/ |
| 15 | Ramakrishna Mission Vidyamandira | Howrah | West Bengal | https://vidyamandira.ac.in/ |
| 16 | Madras Christian College | Chennai | Tamil Nadu | https://mcc.edu.in/library-2/ |
| 17 | Deshbandhu College | New Delhi | Delhi | https://www.deshbandhucollege.ac.in/library.php |
| 18 | Thiagarajar College | Madurai | Tamilnadu | https://www.tcarts.in/library/library.php |

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|----|---|------------|-------------|---|
| 19 | Ramakrishna Mission Residential College | Kolkata | West Bengal | https://rkmc.in/library/ |
| 20 | PSG College of Arts and Science | Coimbatore | Tamil Nadu | https://www.psgcas.ac.in/academics_library.html |

(Source: <https://www.nirfindia.org/2023/CollegeRanking.html>)

Review of Literature :

In the study titled "Web Impact Factor and Link Analysis of Selected Indian Universities" conducted by Jalal, Biswas, and Mukhopadhyay(2010), they investigate the utility and significance of the web impact factor of the websites of Indian universities. The findings revealed a notable closeness among the National Institutes of Technology (NITs) within the framework of their activities, as opposed to state and central universities where nodes demonstrated less significant linkage in the topology.

Margam Madhusudhan & Prakash Shashi (2013) conducted a webometric study of 16 IIT websites in India. Study revealed that in WIF (in-link) the IIT Bombay and IIT Madras achieved first and second position respectively as well as in world rank; whereas, WIF (in-link) position of IIT Rajasthan shows one position better rank than the world ranking.

Brahma Krishna & Verma Manoj Kumar (2019) examines the websites of 9 public libraries in India. The study found that the National Library of India tops with highest Page Authority with 21%, Total Linking Root domains with 68%, highest External Equity- Passing Links with 97%, Total Equity- Passing Links 88%, Total External Links with 97%, and Total Links with 87%. It is also found that the Internal Web Impact Factor of most of the public libraries is very low, hence there is need to be improved the websites.

Das Ankit & Gurey Pritam (2019) examines the Web Content Analysis of 26 State University Websites of West Bengal according to UGC, under Ministry of Education, Government of India and its contribution to global academic knowledge base. Study observed that accessibility, currency, speed, accuracy, aesthetic value, language, user friendliness, navigation, currency, relevancy, applicability, pertinence and qualitative nature of graphics, animations, existing library facilities, collection, availability of services and variety types of information resources provided by the library elements etc.

Dhar Prasenjit & Gayan Mithu Anjali (2022) conducted a webometric study of selected International Library Association websites. A link analysis tool <https://moz.com/> used for the data collection for determining Domain Authority, Page Authority, in-links, and out-links. The study revealed that In terms of link dynamics, 4 out of 8 (50 %) websites have more external links than internal links 7 out of 8 (87.5 %) international library association websites' Domain Authority and Page Authority is below 50. Essential information are not available on the websites like customer service, currency, and FAQ.

Objective of the study :

- To analyse the URL of top 20 College websites ranked by NIRF in 2023.
- To examine the domain age and, domain authority and page authority of top 20 College library webpages ranked by NIRF in 2023.

- To examine the global and India Rank of 20 College websites ranked by NIRF in 2023.
- To identify the link analysis of selected College ranked by NIRF in 2023.

Scope and Limitations of the study :

1. Present Study is limited to only NIRF Ranked 2023 College Websites listed in College Section of NIRF in India.
2. The study is limited to only top 20 NIRF Ranked 2023 College Library Websites listed in College Section of NIRF in India. Websites of universities, engineering, management, pharmacy, medical, Law, Architecture, dental and research institute library are excluded from the study.

Hypothesis :

H1: There exists websites to top 20 colleges websites listed by NIRF in 2023.

H2: There exist significant differences in number of internal link, and external link among the website of top 20 colleges listed in NIRF 2023.

Methodology :

In the present study investigates top 20 college websites listed by NIRF in 2023. The study only focused on top 20 college website specially library webpage of colleges listed by NIRF in 2023 in College Category by observation and collected the information of domain. Data were collected by using the tool i.e. smallseo.com for domain age, internal and external link count and similarweb.com is used for count to global and India Rank of College websites. It identifies the internal links, external links and web ranking in India and Global Rank.

Analysis & interpretations :

List of top 20 colleges and their library web pages, domain age, domain registration, domain authority and page authority.

Table 2: List of colleges and their library hyperlinks, domain age, domain registration date, domain authority and page authority.

| Rank | NIRF ranking 2023 colleges | Library web page | Domain age | Domain Registration | Domain authority | Page authority |
|------|------------------------------------|---|---------------------------------|---------------------|------------------|----------------|
| 1 | Miranda House | https://www.mirandahouse.ac.in/facilities/library.php | 19 Years 9 Months 20 Days | 28-02-2004 05:00 | 33 | 25 |
| 2 | Hindu College | https://hinducollege.ac.in/library.aspx | 8 Years 1 Month 12 Days | 06-11-2015 05:45 | 34 | 25 |
| 3 | Presidency College | https://www.presidencycollegechennai.ac.in/UI/DepartmentPage.aspx | 5 Years 3 Months 28 Days | 20-08-2018 11:40 | 29 | 21 |
| 4 | PSGR Krishnammal College for Women | https://www.psgrkwc.ac.in/gr-govindarajulu- | 5 Years 1 Month | 15-11-2018 11:32 | 30 | 19 |



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|----|--|---|---------------------------------|------------------------|----|----|
| | | memorial-general-library/ | 3 Days | | | |
| 5 | St. Xavier`s College | https://www.sxccal.edu/central-library/ | 24 Years 7 Months 6 Days | 13-05-1999 00:00 | 38 | 31 |
| 6 | Atma Ram Sanatan Dharm College | https://www.arsdcollege.ac.in/index.php/aboutlibrary/ | 6 Years 5 Months 11 Days | 07-07-2017 10:07 | 25 | 24 |
| 7 | Loyola College | https://www.loyolacollege.edu/library/profile | 26 Years 1 Month 25 Days | 24-10-1997 00:00 | 39 | 27 |
| 8 | Rama Krishna Mission Vivekananda Centenary College | https://rkmvccrahara.org/viewalllist.aspx?id=29 | 14 Years 6 Months 27 Days | 21-05-2009 12:44 | 25 | 18 |
| 9 | Kirori Mal College | http://kmclibrary.saraswatilib.com/ | 19 years 9 months 21 days | 28-02-2004 05:00 | 11 | 12 |
| 10 | Lady Shri Ram College For Women | https://lsr.edu.in/students/facilities/library/ | 13 Years 2 Months 14 Days | 04-10-2010 09:00 | 40 | 31 |
| 11 | Shri Ram College of Commerce | https://www.srcc.edu/library | 25 Years 0 Month 3 Days | 16-12-1998 00:00 | 41 | 30 |
| 12 | Hans Raj College | https://www.hansrajcollege.ac.in/infrastructure/library | 7 Years 6 Months 5 Days | 13-06-2016 05:34 | 32 | 28 |
| 13 | Sri Venkateswara College | http://www.svc.ac.in/SVC_MAIN/Library/library.php | 14 Years 3 Months 2 Days | 16-09-2009 07:47 | 33 | 30 |
| 14 | St. Stephens's College | https://www.ststephens.edu/library/ | 25 Years 1 Month 27 Days | 22-10-1998 00:00:00 | 39 | 32 |
| 15 | Ramakrishna Mission Vidyamandira | https://vidyamandira.ac.in/ | 14 Years 7 Months 7 Days | 11-05-2009 05:52 | 31 | 39 |
| 16 | Madras Christian College | https://mcc.edu.in/library-2/ | 18 Years 8 Months 14 Days | 04-04-2005 10:20 | 35 | 31 |
| 17 | Deshbandhu College | https://www.deshbandhucollege.ac.in/library.php | 16 Years 2 Months 27 Days | 21-09-2007 10:35:27 | 36 | 24 |
| 18 | Thiagarajar College | https://www.tcarts.in/library/library.php | 18 Years 9 Months 29 Days | 19-02-2005 06:03:33 | 32 | 20 |
| 19 | Ramakrishna Mission Residential College | https://rkmrc.in/library/ | 5 Years 4 Months 15 Days | 03-08-2018 19:38 | 22 | 21 |

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|----|---------------------------------|---|-------------------------------|---------------------|----|----|
| 20 | PSG College of Arts and Science | https://www.psgcas.ac.in/academics_library.html | 18 Years 4 Months 0 Day | 18-08-2005 09:07 | 33 | 28 |
|----|---------------------------------|---|-------------------------------|---------------------|----|----|

Table 2 shows the top twenty colleges library web pages and their domain age, domain registration date, domain authority and page authority. It is found that Loyola College library website having oldest domain registered on 24 October, 1997 followed by the St. Stephens's College library website domain registered on 22 October, 1998 and the age of the domain was 26 Years 1 Month 25 Days and 25 Years 1 Month 27 Days respectively and the PSGR Krishnammal College for Women library website had recent domain registered on 15 November, 2018 having age of 5 Years 1 Months 3 Days. Domain Authority of Kirori Mal College having common 61 highest score followed by Sri Ram College of Commerce with 41 and Lady Shriram College for Women having 40 score. Ramakrishna Mission Residential College had lowest domain authority score of 22. It also examines that page authority of Ramakrishna Vidyamandira Library webpage with 36 highest score followed by Kirorimal College with 36 score and the Rama Krishna Mission Vivekananda Centenary College examines lowest score of 18.

Table 3: List of colleges and their library hyperlinks, internal links and external links,

| Rank | NIRF ranking 2022 colleges | Library web page | Total link | Internal links | External links |
|------|--|---|---------------|-----------------|----------------|
| 1 | Miranda House | https://www.mirandahouse.ac.in/facilities/library.php | 159 (100%) | 152 (95.60%) | 7 (4.40%) |
| 2 | Hindu College | https://hinducollege.ac.in/library.aspx | 219 (100%) | 190 (86.75%) | 29 (13.25%) |
| 3 | Presidency College | https://www.presidencycollegechennai.ac.in/UI/DepartmentPage.aspx | 93 (100%) | 92 (99%) | 1 (1%) |
| 4 | PSGR Krishnammal College for Women | https://www.psgrkcw.ac.in/gr-govindarajulu-memorial-general-library/ | 199 (100%) | 144 (72%) | 55 (28%) |
| 5 | St. Xavier's College | https://www.sxccal.edu/central-library/ | 248 (100%) | 227 (92%) | 21 (8%) |
| 6 | Atma Ram Sanatan Dharm College | https://www.arsdcollege.ac.in/index.php/aboutlibrary/ | 216 (100%) | 193 (89%) | 23 (11%) |
| 7 | Loyola College | https://www.loyolacollege.edu/library/profile | 441 (100%) | 403 (91%) | 38 (9%) |
| 8 | Rama Krishna Mission Vivekananda Centenary College | https://rkmvccrahara.org/viewalllist.aspx?id=29 | 114 (100%) | 99 (87%) | 15 (13%) |
| 9 | Kirori Mal College | http://kmclibrary.saraswatilib.com/ | 29 (0%) | 21 (72%) | 8 (28%) |

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|----|---|---|---------------|--------------|--------------|
| 10 | Lady Shri Ram College For Women | https://lsr.edu.in/students/facilities/library/ | 209 (100%) | 157 (75%) | 52 (25%) |
| 11 | Shri Ram College of Commerce | https://www.srcc.edu/library | 0 (0%) | 0 (0%) | 0 (0%) |
| 12 | Hans Raj College | https://www.hansrajcollege.ac.in/infrastructure/library | 198 (100%) | 191 (96%) | 7 (4%) |
| 13 | Sri Venkateswara College | https://www.svc.ac.in/SVC_MAIN/Library/Library.php | 198 (100%) | 165 (83%) | 33 (17%) |
| 14 | St. Stephens's College | https://www.ststephens.edu/library/ | 170 (100%) | 161 (95%) | 9 (5%) |
| 15 | Ramakrishna Mission Vidyamandira | https://vidyamandira.ac.in/ | 0 (0%) | 0 (0%) | 0 (0%) |
| 16 | Madras Christian College | https://mcc.edu.in/library-2/ | 406 (100%) | 399 (98%) | 7 (8%) |
| 17 | Deshbandhu College | https://www.deshbandhucollege.ac.in/library.php | 272 (100%) | 227 (83%) | 45 (17%) |
| 18 | Thiagarajar College | https://www.tcarts.in/library/library.php | 29 (100%) | 24 (83%) | 5 (17%) |
| 19 | Ramakrishna Mission Residential College | https://rkmrc.in/library/ | 176 (100%) | 141 (80%) | 35 (20%) |
| 20 | PSG College of Arts and Science | https://www.psgcas.ac.in/academics_library.html | 306 (100%) | 193 (63%) | 113 (37%) |

From the above Table 3 it is observed that the top twenty college's library web page, internal links and external links, Among top 20 colleges library webpages. Loyola College 441(100%) total links and 403 (91%) internal Links followed by Madras Christian College with 399 (98%) internal links. PSG College of Arts and Science leads with 113 (37%) highest external links followed by PSGR Krishnammal College for Women with 55 (28%) external links. It was found that Ramakrishna Mission Vidyamandira had no internal and external links found in smallseotools.com.

Table 4: List of colleges and India Rank and Global Rank

| Rank | NIRF ranking 2022 colleges | Library web page | India Rank | Global Rank |
|------|------------------------------------|---|------------|-------------|
| 1 | Miranda House | https://www.mirandahouse.ac.in/facilities/library.php | 122197 | 1725091 |
| 2 | Hindu College | https://hinducollege.ac.in/library.aspx | 111326 | 1559493 |
| 3 | Presidency College | https://www.presidencycollegechennai.ac.in/UI/DepartmentPage.aspx | - | - |
| 4 | PSGR Krishnammal College for Women | https://www.psgrkwcw.ac.in/gr- | 47542 | 703957 |

| | | | | |
|----|--|---|--------|---------|
| | | govindarajulu-memorial-general-library/ | | |
| 5 | St. Xavier's College | https://www.sxccal.edu/central-library/ | 15586 | 240844 |
| 6 | Atma Ram Sanatan Dharm College | https://www.arsdcollage.ac.in/index.php/aboutlibrary/ | 57699 | 811933 |
| 7 | Loyola College | https://www.loyolacollege.edu/library/profile | 28597 | 430345 |
| 8 | Rama Krishna Mission Vivekananda Centenary College | https://rkmvccrahara.org/viewalllist.aspx?id=29 | - | 9012525 |
| 9 | Kirori Mal College | http://kmclibrary.saraswatilib.com/ | - | - |
| 10 | Lady Shri Ram College For Women | https://lsr.edu.in/students/facilities/library/ | 45519 | 642881 |
| 11 | Shri Ram College of Commerce | https://www.srcc.edu/library | 16991 | 250257 |
| 12 | Hans Raj College | https://www.hansrajcollege.ac.in/infrastructure/library | 35587 | 507352 |
| 13 | Sri Venkateswara College | https://www.svc.ac.in/SVC_MAIN/Library/Library.php | 108804 | 1500658 |
| 14 | St. Stephens's College | https://www.ststephens.edu/library/ | 32735 | 461084 |
| 15 | Ramakrishna Mission Vidyamandira | https://vidyamandira.ac.in/ | 80313 | 1173771 |
| 16 | Madras Christian College | https://mcc.edu.in/library-2/ | 31327 | 452395 |
| 17 | Deshbandhu College | https://www.deshbandhucollege.ac.in/library.php | 45481 | 398303 |
| 18 | Thiagarajar College | https://www.tcarts.in/library/library.php | 207659 | 3313677 |
| 19 | Ramakrishna Mission Residential College | https://rkmrc.in/library/ | 58898 | 874501 |
| 20 | PSG College of Arts and Science | https://www.psgcas.ac.in/academics_library.html | 39937 | 599417 |

Table 4 shows the India rank and Global Rank of the top 20 Colleges library webpages in college category with the tools similarweb.com. After analysis, it was found that St. Xavier's College with the first position in Global Rank as well as in India Rank among all colleges followed by Shri Ram College of Commerce and Deshbandhu College in 2nd & 3rd position in Global Rank. Shri Ram College of Commerce with 2nd position in India Rank followed by Loyola College with 3rd position in India Rank. Presidency College not found any global and

India rank in similarweb.com.

Conclusion :

This study investigates the library website of top 20 college ranked by NIRF in 2023. The paper investigates the library website, its domain age, domain registration, internal and external links of top 20 Colleges library websites and rank them orderly. NIRF is a method of ranking universities and colleges in India and acts as an independent body on the initiative of the Ministry of Education. A detailed study in this area is quite interesting and exploratory for the current status of library websites and will be more helpful to readers.(Narnaware & Rokade 2022). It was found that there exists websites of top 20 colleges websites listed by NIRF in 2023 and also found significant differences in number of internal link, and external link among the website of top 20 colleges listed in NIRF 2023. The paper resolved that Domain Authority of Loyola College and St. Stephens's College having common 39 highest score and Atma Ram Sanatan Dharm College website having the oldest domain registered on July 7, 2007. It was also resolved that 10 colleges from Delhi state were achieved place in NIRF 2023 ranked top 20 colleges of India. It is suggested that Kirorimal College and Thiagarajar College should improve its links for better accessibility and connectivity among college library websites. About St. Xavier's got first rank in global rank but the college has 5th rank in NIRF 2023.

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