



# Webometric Analysis of Websites of Indian Council of Medical Research Institutes in South India

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Date of Submission: 04-12-2024

Date of Acceptance: 16-12-2024

**Abstract:** -We can use the website of any Organisation for many works and purposes, and enabling users to get more information about a particular Organisation. Analysing the performance and contents of websites is very important. This article aims to analyse the websites of Indian Council of Medical Research Institutes in South India through Webometric method. Websites of seven ICMR Institutes in South India were considered based on [www.icmr.gov.in/institutes](http://www.icmr.gov.in/institutes). Concepts like Internal and External Links and Google Page Ranks are considered for this work.

**Keywords:** Webometric analysis, Indian Council of Medical Research, Link calculation, Google page rank.

## I. INTRODUCTION

Today, websites are indispensable sources of information in our daily lives. Therefore, it is necessary to use webometric methods to analyse websites. Webometrics is defined as the study of quantitative aspects of the construction and use of information resources; structures and technologies on the web, drawing on bibliometric and informetric approaches (Bjorneborn). This definition covers the structural side and usage side of the website which embraces four main areas of webometric study: Web link structure, Web page content analysis, analysis, Web technology analysis and Web usage analysis.

## II. LITERATURE REVIEW

Kothainayaki (2011) evaluated the Agricultural Universities in India through webometrics method. A total of 54 Agricultural Universities were selected, which includes 44 State Agricultural Universities (SAUs), 1 Central University, 5 Deemed Universities and 4 Central Universities with agriculture faculty. Various concepts like Google PageRank, Alexa Traffic Rank and rich files were selected for evaluation. It also presented the network diagrams showing the link

structures between the web nodes in webometric analysis.

Krishnakumar (2014) analysed the Research Councils of India websites. Study considered thirteen research councils for the data collection. Alexa traffic rank and google page rank were taken for evaluation of the research council's websites. The research concluded by ranked the research councils based in their page ranks and traffic ranks.

Jeyshankar (2012) examined and explored the webometric study of Indian Council for Medical Research institutions Websites of India. The study examined the websites of 22 ICMR research institutions in India. The Alexa Traffic Ranks calculated and ranked based on their traffic rank. And analyse the link network of the Indian Council for Medical Research institutions Websites in India.

## SCOPE OF THE STUDY

The webometric study inspects the websites by considering the websites of Indian Council of Medical Research Institutes in South India form ICMR website in seven Institutes. The article focused to prescribe a kind of ranking of websites of Medical Research Institutes in South India by analysing their Links and Page Ranks.

## OBJECTIVES OF THE STUDY

- To identify the websites of Indian Council of Medical Research Institutes in South India
- To distribute the Indian Council of Medical Research Institutes based on their year of establishment, location and web domains
- To calculate the total no. of links of the Indian Council of Medical Research Institutes' websites in South India
- To calculate the Google PageRank of the Indian Council of Medical Research Institutes in South India



- To rank the Indian Council of Medical Research Institutes in South India based on their web performance

### METHODOLOGY OF THE STUDY

As per Indian Council of Medical Research, the Institutes in south India websites were collected. Total no. of inlinks and external links of each Indian Council of Medical Research Institutes in South India website were taken up for the study. Google PageRank calculated using PageRank Checker for Indian Council of Medical Research Institutes in South India websites under this study.

Link Analyser Tool used for this study to keep track of all the links of the websites of Indian Council of Medical Research Institutes in South India. Using this, study analysed the external and internal links related to websites of Indian Council of Medical Research Institutes in South India.

PageRank is an algorithm used by Google Search to rank websites in their search engine results. PageRank was named after Larry Page, one of the founders of Google. Important pages receive a higher PageRank and are more likely to appear at the top of the search results. Google PageRank is a measured between 0 and 10. Google PageRank is based on backlinks.

### ANALYSIS

This study analyses the link analysis and Google page rank of Indian council of medical research institutes in South India. A survey was took place to prepare a list of Indian council of medical research institutes in South India. The list of Indian council of medical research institutes in South India are collected from Indian council of medical research institute website and resulted 07institutes mentioned with their Code and URL in Table 01.

**Table 01: List of ICMR Institutes in South India\* (Access on December 12 2024)**

S.No.	Institute	Code	URL
1	ICMR National Centre for Diseases Informatics and Research	ICMR-NCDIR	<a href="https://www.ncdirindia.org">https://www.ncdirindia.org</a>
2	ICMR National Institute for Research in Tuberculosis	ICMR-NIRT	<a href="https://nirt.res.in">https://nirt.res.in</a>
3	ICMR National Institute of Epidemiology	ICMR-NIE	<a href="https://nie.gov.in">https://nie.gov.in</a>
4	ICMR National Institute of Nutrition	ICMR-NIN	<a href="https://www.nin.res.in">https://www.nin.res.in</a>
5	ICMR National Animal Resource Facility for Biomedical Research	ICMR-NARFBR	<a href="https://www.narfbr.org">https://www.narfbr.org</a>
6	ICMR Vector Control Research Centre	ICMR-VCRC	<a href="https://vcrc.icmr.org.in">https://vcrc.icmr.org.in</a>
7	ICMR National Institute of Traditional Medicine	ICMR-NITM	<a href="https://icmrnitm.res.in">https://icmrnitm.res.in</a>

\* Source: <https://www.icmr.gov.in/institutes>

### Institutes with the Year of Establishment:

Table 02 indicates, 43 percent of the Indian council of medical research institutes in South India were established after 2000, 29 percent of the institutes

started between 1951 and 1975. Each 14 percent of the Indian council of medical research institutes in South India were started before 1950 and between 1976 and 2000.

**Table 02: Year of Establishment**

S.No.	Year of Establishment	Frequency	Percentage
1	Before 1950	01	14%
2	Between 1951 - 1975	02	29%
3	Between 1976 - 2000	01	14%



4	After 2000	03	43%
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**Distribution of Institutes by Location:**

In terms of location wise distribution of Indian council of medical research institutes in South India, both Chennai and Hyderabad institutes

took a first position with 29 percent followed by Bangalore, Belagavi and Puducherry with 14 percent each.

**Table 03: Institutes by Location**

S.No.	City	Frequency	Percentage
1	Belagavi	01	14%
2	Bengaluru	01	14%
3	Chennai	02	29%
4	Hyderabad	02	29%
5	Puducherry	01	14%

**Web Domains Possessed:**

Web domains possessed among the Indian council of medical research institutes in South India shows in table 04. It observed that .res.in took first

position with 43 percent followed by .org with 29 percent. Also, .gov.in, and .org.in domains are with 14 percent of the Indian council of medical research institutes in South India.

**Table 04: Web Domains Possessed**

S.No.	Web Domain	Frequency	Percentage
1	.res.in	03	43%
2	.org	02	29%
3	.gov.in	01	14%
4	.org.in	01	14%

**Link Analysis of the Indian council of medical research institutes in South India Websites:**

Table 05 shows the rank order based on internal, external and total links of Indian council of medical research institutes in South India websites. ICMR Vector Control Research Centre (ICMR-VCRC) took first position. ICMR National Institute of Epidemiology (ICMR-NIE) and ICMR National Institute for Research in Tuberculosis (ICMR-

NIRT) second and third positions respectively. ICMR National Institute of Traditional Medicine (ICMR-NITM) and ICMR National Institute of Nutrition (ICMR-NIN) ranked fourth and fifth respectively. ICMR National Animal Resource Facility for Biomedical Research (ICMR-NARFBR) occupies sixth position followed by ICMR National Centre for Diseases Informatics and Research (ICMR-NCDIR) in the seventh position.

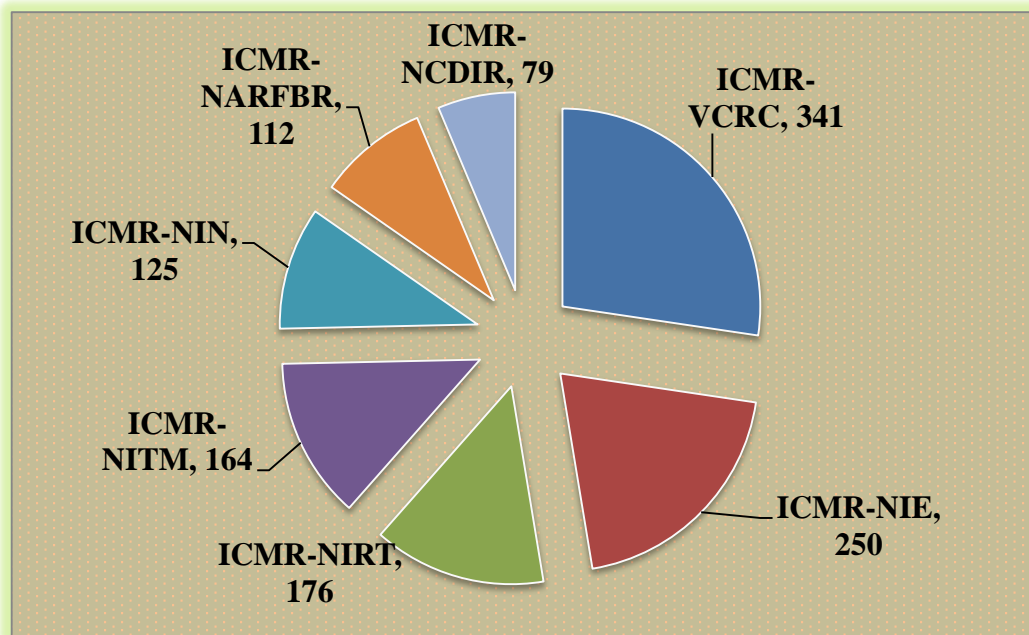
**Table 05: Link Analysis**

S.No.	Institute	Internal Links	External Links	Total Links	Rank
1	ICMR Vector Control Research Centre (ICMR-VCRC)	324	17	341	1



2	ICMR National Institute of Epidemiology (ICMR-NIE)	222	28	250	2
3	ICMR National Institute for Research in Tuberculosis (ICMR-NIRT)	158	18	176	3
4	ICMR National Institute of Traditional Medicine (ICMR-NITM)	148	16	164	4
5	ICMR National Institute of Nutrition (ICMR-NIN)	86	39	125	5
6	ICMR National Animal Resource Facility for Biomedical Research (ICMR-NARFBR)	101	11	112	6
7	ICMR National Centre for Diseases Informatics and Research (ICMR-NCDIR)	67	12	79	7

Graph 01: Distribution by Total No. of Links



**Google PageRank (Google PR) of the Indian council of medical research institutes in South India Websites:**

Table 06 shows the Rank of the Indian council of medical research institutes in South India websites calculated based on Google PageRank. ICMR Vector Control Research Centre (ICMR-VCRC), ICMR National Centre for Diseases Informatics and Research (ICMR-NCDIR), ICMR National

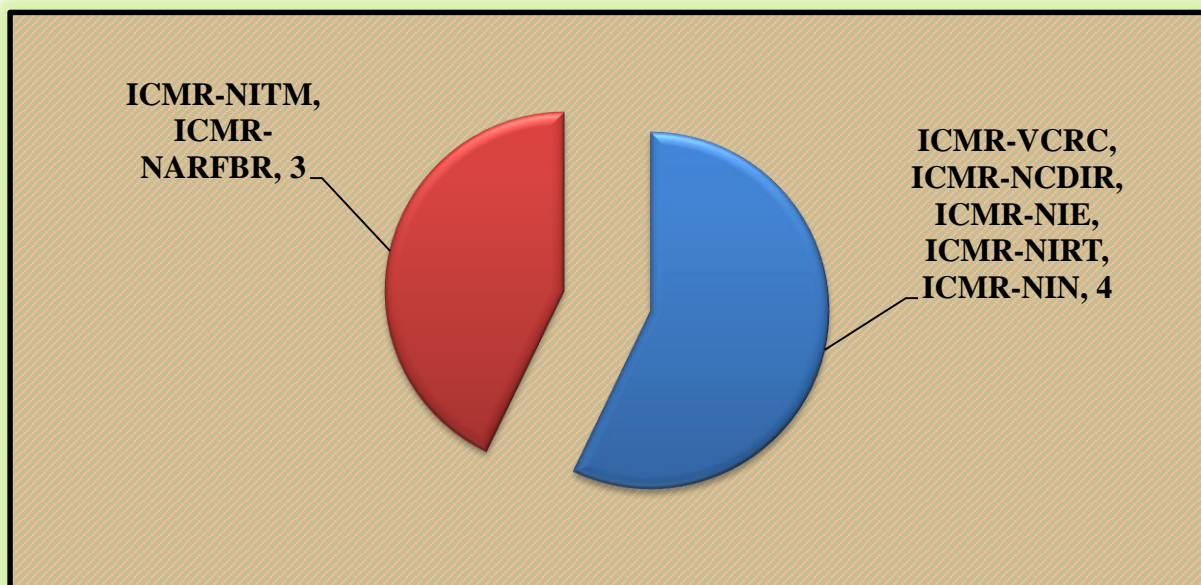
Institute of Epidemiology (ICMR-NIE), ICMR National Institute for Research in Tuberculosis (ICMR-NIRT) and ICMR National Institute of Nutrition (ICMR-NIN) got first rank with 4 points out of 10 points. ICMR National Institute of Traditional Medicine (ICMR-NITM) and ICMR National Animal Resource Facility for Biomedical Research (ICMR-NARFBR) shares second rank with 3 points out of 10 points.



**Table 06: Google Page Ranks**

S.No.	Institute	Out of 10		Rank
		cPR Score	Google PR	
1	ICMR Vector Control Research Centre (ICMR-VCRC)	4.8	4	1
2	ICMR National Centre for Diseases Informatics and Research (ICMR-NCDIR)	4.5	4	
3	ICMR National Institute of Epidemiology (ICMR-NIE)	4.5	4	
4	ICMR National Institute for Research in Tuberculosis (ICMR-NIRT)	4.5	4	
5	ICMR National Institute of Nutrition (ICMR-NIN)	4.4	4	
6	ICMR National Institute of Traditional Medicine (ICMR-NITM)	3.3	3	2
7	ICMR National Animal Resource Facility for Biomedical Research (ICMR-NARFBR)	3.2	3	

**Graph 02: Distribution by Google Page Ranks**



## CONCLUSION

This study gives an overall preview of the link performance and page ranks of Indian council of medical research institutes in South India websites. Based on this present research, there is an opportunities for future studies in this particular area. This research could be continue further by using other corporate, service, research and educational institutes within the particular geographical coverage.

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