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Abstract

Indian Research Information Network System (IRINS) developed by the Central University of Punjab, Bathinda in collaboration with Information and Library Network Centre (INFLIBNET) which can be used for higher education institution and research institutions to showcase the research contribution to the scholarly community. The data were taken from Indian Research Information Network System (http://irins.org/irins/) of 15 instances for the Academic and Research Organisations. The objectives of the article is to analyze the faculty members, department and their scholarly publications with citations and its impact. It is found that KL University, Guntur has highest 836 (17.22%) faculty member. The Indian Institute of Technology, Madras has received 278374 (26.28%) highest citations from Scopus and 227686 (22.30%) citations from Cross Ref.

Keywords: *Research Information System, Indian Research Information Network System (IRINS), Faculty Profiles, Research Information Management System, Profile Management System.*

1. Introduction

IRINS is web-based Research Information Management (RIM) developed by the Information and Library Network Centre (INFLIBNET) Gandhinagar in collaboration with Central University of Punjab. The portal facilitates the academic, R&D organizations and faculty members, scientists to collect, curate and showcase the scholarly communication activities and provide an opportunity to create the scholarly network. The IRINS is available as free software-as-service to the academic and R&D organizations in India. Also, it supports the research administrator to prepare various reports based on the scholars, publications, citations and social media metrics, etc.

2. Review of Literature

Kannan, P., Kimidi, S., & Arora, J. (2018)[1] elaborated a unique Indian Research Information Network System (IRINS) which can be used as a common platform across all educational and research institutes in Indian higher education sector. The IRINS could be used effectively for efficiently measuring and benchmarking research output of individual institute as well as across institutions. **Joachim Schöpfela., Hélène Prosta and Violane Rebouillat (2017)[2]** provided an overview of recent research and publications on the integration of research data in Current Research Information Systems (CRIS) and address three related issues, i.e. the object of evaluation, identifier schemes and conservation. Contributed to the debate on the evaluation of research data, especially in the environment of open science and open data, and will be helpful in implementing CRIS and research data policies. **Kannan, P (2015)[3]** explained about the semantic technologies such as Resource Description Framework, Web Ontology Language, Open Linked Data. This article discussed about what is profile management system, how it is used in the scholarly communication, etc. The article is also emphasised on semantic-based profile management system called: VIVO and its architecture, data integration tools and major features and functionalities, etc. **Nicholas Joint, (2008)[4]** focused an overview of larger developments in the international research information environment, and to outline their impact on the open access movement within libraries. It is found that the developments in the research landscape have important effects on grass-roots LIS practice, and have given a great boost to open access repositories while preserving the traditional role of commercial journal publications. This complementary relationship was completely unexpected at the outset of the open access movement, which was specifically intended to reduce the importance of commercial journal publications. Recommended that practitioner librarians must come to grips with the role of repositories within the CRIS environment, as well as the relationship of repositories to the local campus research information system. This article investigated trends in the broader research information environment which will be unfamiliar to many LIS practitioners, and puts them in the context of everyday professional practice. **Devare, Medha, Rikert, Jon Corson, McCue, Janet, Chiang, Kathy, Lowe, Brian, & Caruso, Brian (2007)[5]** described the implementation of VIVO profile management system of life science communities. This helps to access for scholarly activity in the life sciences at Cornell – VIVO (http://vivo.library.cornell.edu) – transcends campus, college and department structure to provide Cornell faculty, students, and

administrative and service officials, prospective faculty and students, external sponsors, and the public an integrated view of the life sciences at Cornell. It also provides the faculty profiles with affiliations to departments, fields, or research units, research projects, courses, seminars, and facilities relevant to life scientists regardless of the campus, college, or department in which the entity resides. **Javed, Muhammad, Payette, Sandy, Blake, Jim, & Worrall, Tim (2016).**[6] described VIZ-VIVO, an extension for the VIVO framework that enables end-user exploration of a scholarly knowledge-base through a configurable set of data-driven visualizations. discussed process for selection, design, and development of an initial set of visualizations as well as approach to the underlying technical architecture. By engaging an initial set of pilot partners evaluated the use of these data-driven visualizations by multiple stakeholders, including faculty, students, librarians, administrators, and the public.

3. Research Methodology

The data were collected from Indian Research Information Network System (IRINS) (http://irins.org/irins/)[7] of 15 as on 16th Feb 2019. The study is also aimed to analyze Implemented institutions and faculty based Scopus publications, Resource Impacts from various databases, various types of documents, top departments and top faculty publication & citations of individual institution. The Data were analyzed using Excel and using simple calculations.

4. Objectives of the Study

These are the major objectives of the study.

- To analyze the faculty members and Scopus publications of IRINS implemented institutions.
- To find out the Resource Impact from various databases.
- To analyze various types of documents.
- To find out the contributions of top department of individual institution and h index.
- To find out the top faculty of individual institution and publications.

5. Data Analysis and Interpretation

5.1 faculty members and Scopus publications

Table.1

Faculty members and Scopus publications

S. No	Name of Institution	Total no. of	%	Total Publicatio	%	Rank

		Faculty Members		**ns (Scopus)**		
1	Indian Institute of Technology, Madras	596	12.28	22967	22.52	3
2	CSIR National Aerospace Laboratories	409	8.42	1898	1.86	5
3	CSIR National Institute for Multidisciplinary Science and Technology	78	1.61	1836	1.80	14
4	Delhi Technological University	254	5.23	3544	3.48	7
5	Alagappa University	208	4.28	2205	2.16	9
6	Pondicherry University	357	7.35	4335	4.25	6
7	Indian Institute of Science	553	11.39	29079	28.51	4
8	Central University of Tamil Nadu	93	1.92	654	0.64	13
9	Central University of Punjab	101	2.08	787	0.77	12
10	Indian Institute of Technology, Delhi	728	14.99	21520	21.10	2
11	KL University, Guntur	836	17.22	3561	3.49	1
12	Bharathidasan University	176	3.63	2082	2.04	11
13	Indian Institute of Management, Trichy	39	0.80	129	0.13	15
14	O.P. Jindal Global University	208	4.28	115	0.11	9
15	Panjab University	219	4.51	7270	7.13	88
Total		4855		101982		

Table 1 indicates that faculty members and Scopus publications. It is found that KL University, Guntur has highest (836 and 17.22%) faculty members having published 3561 (3.49%) articles to Scopus Database and is placed first followed by Indian Institute of Technology, Delhi with 728 (14.99%) faculty members having published 21520 (21.10%) publications is placed in second position. A good number of (553 and 11.39%) faculty members of Indian Institute of Science have published highest (29079 and 28.51%) publications have been placed fourth. It is further found that Indian Institute of Management, Trichy the least number of faculty members and published few articles stands last.

5.2 Resource Impact of Various Databases

Table.2

Resource Impact of Various Databases

S. No	Name of Institution	Scopus Citations	%	Cross Ref Citations	%
1	Indian Institute of Technology, Madras	278374	26.28	227686	22.30
2	CSIR National Aerospace Laboratories	24447	2.31	20726	2.03
3	CSIR National Institute for Multidisciplinary Science and Technology	0	0	0	0
4	Delhi Technological University	22769	2.15	22747	2.23
5	Alagappa University	23158	2.19	20055	1.96
6	Pondicherry University	227686	21.50	29272	2.87
7	Indian Institute of Science	20726	1.96	353824	34.65
8	Central University of Tamil Nadu	2770	0.26	1989	0.19
9	Central University of Punjab	5613	0.53	4482	0.44
10	Indian Institute of Technology, Delhi	277917	26.24	216519	21.20
11	KL University, Guntur	9405	0.89	3407	0.33

12	Bharathidasan University	18360	1.73	15426	1.51
13	Indian Institute of Management, Trichy	190	0.02	139	0.01
14	O.P. Jindal Global University	0	0.00	10	0.00
15	Panjab University	147653	13.94	104809	10.26
Total		1059068	100	1021091	100

Table 2 indicates that Resource Impacts of various databases. The Indian Institute of Technology, Madras has received 278374 (26.28%) highest citations from Scopus and 227686 (22.30%) citations from Cross Ref and it's followed by Indian Institute of Technology, Delhi which has 277917 (26.24%) citations from Scopus and 216519 (21.20%) citations from Cross Ref. The Indian Institute of Science has received 353824 (34.65%) highest citations from Crossref and 20726 (1.96%) citations from Scopus. It is further found that O.P. Jindal Global University and CSIR National Institute for Multidisciplinary Science and Technology has received less number of citations from Scopus and Crossref.

5.3 Various types of documents

Table.3

Various types of documents

S. No	Name of the Institution	Total Scholarly Resources and %	Detail of Resources					Rank
			Journal Articles	Proceedings	Chapter in Book	Books	Others	
1	IIT, M	22967 (22.52%)	17128	4568	14	148	3	2
2	CSIR NAL	1898 (1.86%)	1535	332	0	31	0	10
3	CSIR NIMST	1836 (1.80%)	1778	23	2	27	1	11

4	DTU	3544 (3.48%)	2298	186	0	15	0	7
5	AU	2205 (2.16%)	2002	62	0	23	0	8
6	PU	4335 (4.25%)	3491	517	50	76	31	5
7	IISc	29079 (28.51%)	23940	4173	36	465	11	1
8	CUTN	654 (0.64%)	517	64	27	7	0	13
9	CUP	787 (0.77%)	659	20	8	35	1	12
10	IIT, Delhi	21520 (21.10%)	15420	1409	1	104	0	3
11	KL Univ	3561 (3.49%)	2911	15	0	1	0	6
12	BDU	2082 (2.04%)	1662	8	23	11	1	9
13	IIM, Trichy	129 (0.13%)	75	23	11	5	3	14
14	O.P. Jindal	115 (0.11%)	81	0	0	0	4	15
15	Panjab Univ	7270 (7.13%)	6521	119	1	26	3	4
Total		101982						

Table 3 shows the various types of documents. The Indian Institute of Science has 29079 (28.51%) scholarly resources including Journal articles, Proceedings, Chapter in Book, Books and such placed first in position and it's followed by Indian Institute of Technology, Madras having 22967 (22.52%) resources. It is further found that Indian Institute of Management, Trichy has 129 (0.13%) resources and O.P. Jindal Global University has 115 (0.11%) resources have placed fourteenth and fifteenth respectively.

5.4 Contribution of top department of individual institution and h index

Table.4

Contribution of top department of individual institution and h index

S. No	Name of the Department	Publications	%	H index	Rank
1	Solid State and Structural Chemistry Unit (IISc, Bangalore)	2605	19.32	135	2
2	Department of Physics (IIT, Madras)	3126	23.18	98	1
3	Department of Chemistry (IIT, Delhi)	1869	13.86	84	4
4	Department of Physics (Pondicherry University)	646	4.79	41	6
5	Department of Biotechnology (Delhi Technological University)	29	0.22	59	12
6	Department of Physics (Alagappa University)	433	3.21	43	9
7	Surface Engineering Division (CSIR NAL)	576	4.27	52	7
8	Department of Animal Science (CUP)	71	0.53	19	11
9	Department of Physics (CUTN)	200	1.48	32	10
10	Department of Elec and Communication Engg (KL Univ)	1097	8.13	29	5
11	Department of Physics (Bharathidasan University)	546	4.05	59	8
12	Department of Operation Management and Techniques (IIM)	18	0.13	4	13
13	Gindal Global Law School (O.P.Jindal Global University)	5	0.04	0	14

14	Department of Physics (Panjab University)	2264	16.79	114	3
15	CSIR National Institute for Multidisciplinary Science and Technology	0	0	0	15
Total		13485	100.00		

Table 4 shows the Contributions of top department of individual institution and h-index. The Department of Physics (IIT, Madras) has published 3126 (23.18%) articles with 98 h-index tops the list. Solid State and Structural Chemistry Unit (IISc, Bangalore) has published 2605 (19.32%) articles with 135-h index takes the second place. It is further found that Gindal Global Law School (O.P.Jindal Global University) has published 5 (0.04%) articles with out of any citations this placed last.

5.5 Top faculty of individual institution and publications & Citations

Table.5

Top faculty of individual institution and publications & Citations

S. No	Name of the Faculty	Publications and %	Scopus citation and %	Cross Ref citations and %	Rank
1	Dr Jyothsna Rani Komaragiri Assistant Professor (IISc)	872 (12.62%)	37445 (20.65%)	35316 (23.96%)	3
2	Dr Prafulla Kumar Behera Associate Professor (IIT,M)	1128 (16.32%)	44165 (24.36%)	33968 (23.05%)	2
3	Prof Bhim Singh Professor (IIT, Delhi)	798 (11.55%)	8895 (4.91%)	6467 (4.39%)	4
4	Prof S A Abbasi CSIR Emeritus Professor (Pondicherry University)	546 (7.90%)	5529 (3.05%)	3989 (2.71%)	5

5	Prof Rajesh Kumar Professor (Delhi Technological University)	459 (6.64%)	3292 (1.82%)	2640 (1.79%)	6
6	Prof Sanjeev Kumar Singh Professor (Alagappa University)	245 (3.55%)	3693 (2.04%)	3026 (2.05%)	9
7	CSIR - NIMST	-	-	-	15
8	Dr Harish Barshiilia Chief Scientist (CSIR - NAL)	191 (2.76%)	3865 (2.13%)	3517 (2.39%)	12
9	Prof Ravinder Kumar Kohli Vice Chancellor (Central University of Punjab)	210 (3.04%)	4491 (2.48%)	2798 (1.90%)	10
10	Prof Aditya Prasad Dash Vice Chancellor (CUTN)	300 (4.34%)	4369 (2.41%)	2478 (1.68%)	8
11	Dr Boggarapu Nageswara Rao Professor (KL Univ)	210 (3.04%)	1806 (1.00%)	1159 (0.79%)	10
12	Prof Muthusamy Lakshmanan Professor (BDU)	349 (5.05%)	7545 (4.16%)	6433 (4.36%)	7
13	Dr Bhimaraya Metri Director (IIM, Trichy)	81 (1.17%)	89 (0.05%)	0 (0.00%)	13
14	Dr Saroj Koul Professor (O.P.Jindal)	26 (0.38%)	1 (0.00%)	19 (0.01%)	14
15	Prof Vipin Bhatnagar Professor (Panjab Univ)	1495 (21.64%)	56140 (30.96%)	45577 (30.92%)	1
Total		6910	181325	147387	

Table 5 indicates the Top faculty of individual institution and publications & citations. Prof Vipin Bhatnagar (Punjab University) has published 1495 (21.64%) articles has received 56140 (30.96%) citations from Scopus and 45577 (30.92%) citations from Crossref ranks Dr Prafulla Kumar Behera (Indian Institute of Technology, Madras) has published 1128 (16.32%) articles and received 44165 (24.36%) citations from Scopus and 33968 (23.05%)

citations from Crossref takes second position. It is further found that CSIR - NIMST has published least number of articles have received no citations from databases so placed in last position.

6. Conclusion

Indian Research Information Network System (IRINS) plays the major role in higher educational institutions to know their research productivity, citations, h-Index, collaborations and award etc. In present scenario many higher learning institutions are facing the problem in collecting the research activities and faculty profiles for the ranking and accreditation purpose. The IRINS helps to solve this problem and gives more information which is required by the ranking and accreditation organizations by national and international. IRINS helps to update the research and faculty details in a simple manner by themselves. Hence this will help the institutions to know about their faculty personal information, publications, awards, honors, educational background, identity and such up-to-date. Study recommends that all higher learning institutions should implement IRINS for institution's research visibility by the outside world.

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