

Implementation of Research Information System at Bharathidasan University

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Abstract - Research Information System is the most important system for higher education institutions and it helps to get faculty profiles such as faculty affiliations, publications, research projects, awards and honors, education details, etc. This helps to increase the department and institution visibility to get the funding and fellowship opportunities. This paper discusses about Implementation of Research Information System at Bharathidasan University. The outcome of the study shows that it has 170 Existing Faculty Profiles and 2554 Publications from Web of Science, 516 Research Projects and 266 Awards and also department publications, citations and research impacts.

Keywords: Research Information System, VIVO, Profile Management System, Library and Information Science

I. INTRODUCTION

Research Information System collects and stores metadata on research activities and outputs such as researchers and their affiliations; publications, datasets, and patents; grants and projects; academic service and honors; media reports; and statements of impact. Research Information System is most valuable to research institutions to connect their research activities with the global, providing opportunities for new insights at the departmental, faculty and institutional level. It also provides the potential for regional, national and international sharing and benchmarking. Institutions can be maintained the Research Information System by most featured Open Source Software called VIVO.

II. VIVO

VIVO is a suite of open-source software and most often used for sharing information about the research activities of a institution or an organization which is developed by Cornell University. VIVO supports recording, editing, searching, browsing, and visualizing scholarly activities and it encourages showcasing the scholarly record, research discovery, expert finding, network analysis, and assessment of research impact of any institution or an organization. Installation of VIVO needs Linux, JAVA 7 or 8, Maven 3.0.3 or later, MYSQL / Maria DB 5.5 or later, and Tomcat 7 or later.

A. Features of VIVO

VIVO has the following important features to manage the Research Information System.

1. Author Profile and Integrated with ORCID ID
2. Map of Science
3. Co-Author Network
4. Co-Investigator Network
5. Easy maintenance and up-to-date profiles
6. Automatic import of publications
7. Easy customization and identification of experts

III. OBJECTIVES OF THE STUDY

The following are the objectives of this study.

1. To develop the research information system at Bharathidasan University.
2. To maintain and update the faculty publications of Bharathidasan University.
3. To know the overall faculty members publications, awards and citations.
4. To explore the collaborations among authors and investigators.
5. To identify the funding agency contributions.

IV. RESEARCH METHODOLOGY

The faculty profile data were collected from Bharathidasan University website (<http://www.bdu.ac.in>) and data collected such as faculty personal information, affiliation, publications, research, teaching, service, background, identity, contact, etc,. The faculty publications have been collected from Web of Science and based on the features the researcher has selected VIVO profile management software and installed at Bharathidasan University. Finally researcher has uploaded 170 faculty profiles and 2554 existing faculty publications, 516 research projects and 266 awards.

TABLE I BHARATHIDASAN UNIVERSITY FACULTY PROFILE DETAILS

S. No	Bharathidasan University Details	Total
1	Faculty Members	170
2	Faculty Member Awards	266
3	Faculty Member Research Projects	516
4	Faculty Member Publications (Web of Science)	2554

V. IMPLEMENTATION OF RESEARCH INFORMATION SYSTEM AT BHARATHIDASAN UNIVERSITY

A. Bharathidasan University Homepage of VIVO

The home Page of VIVO is having the Major options such as People, Organizations, Research, Events and Capability Map of the Bharathidasan University and each major option has number of additional options to update the details relevant to the major options. For example People can be updated by various names as Faculty, Research Scholars, Emeritus Professor, etc. It also allows to generate the report by major and additional options.



Fig. 1 Bharathidasan University Homepage of VIVO

B. Individual Faculty Home Page

Individual Faculty Homepage shows the details of Current Position and Previous Position, Research Areas, Geographic Focus, Primary Email, Additional Email, Phone and their Website, etc., for the easy access by any one from anywhere.



Fig. 2 Individual Faculty Home Page

C. Faculty Affiliation Details

The faculty affiliation details shows such as head of any activities or programmes, member of committee or association, collaborator details and events attended. These details will be useful to select the expert on a particular subject and also to know more about their academic contributions.

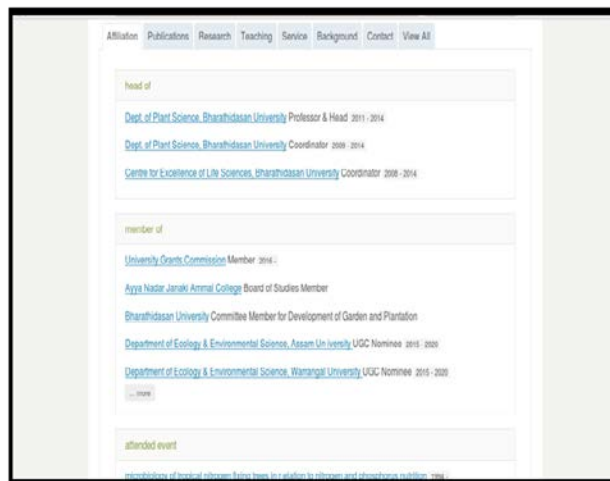


Fig. 3 Faculty Affiliation Details

D. Faculty Publication Details

Faculty Publication covers the details such as article name, author name, journal name, year, volume, issue, DOI and also to get the co-author name etc.,. This will help to get the publication details of any faculty or department in an easy way. This will also help us to know more about their citations and altmetric cores.

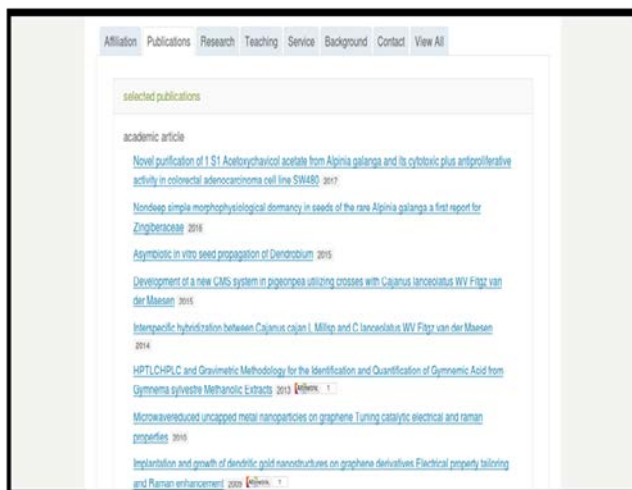


Fig. 4 Faculty Publication details

E. Faculty Research Details

The Faculty Research details such as Research Overview, Principal Investigator, Co-Principal Investigator and other research activities can be stored and retrieved.

This will help us to identify the Research areas, Funding agency, Investigator collaborations and their contributions. It also allows us to generate various reports on Projects, Funding Agency, Year wise contributions subject by funding etc.

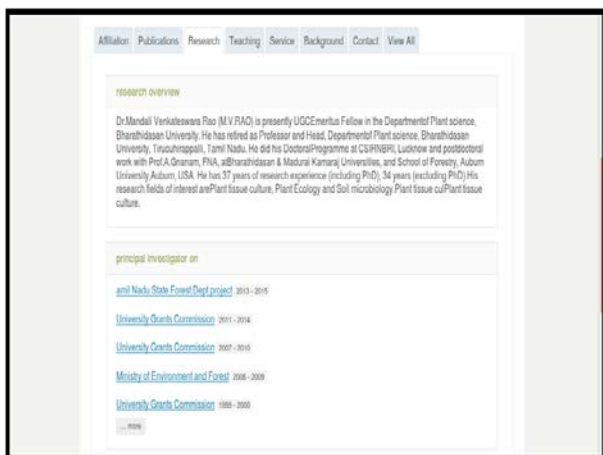


Fig. 5 Faculty Research Details

F. Faculty Education Background details

The Education background such as Education and Training, Awards and Honors. The education and training details as degree name, name of the subject, department name, institution name, started year and end year. The details of awards and honors also covers name of the award, award provider, year of the award. This will be useful to identify the faculty member’s qualifications and their award details in a unique format.

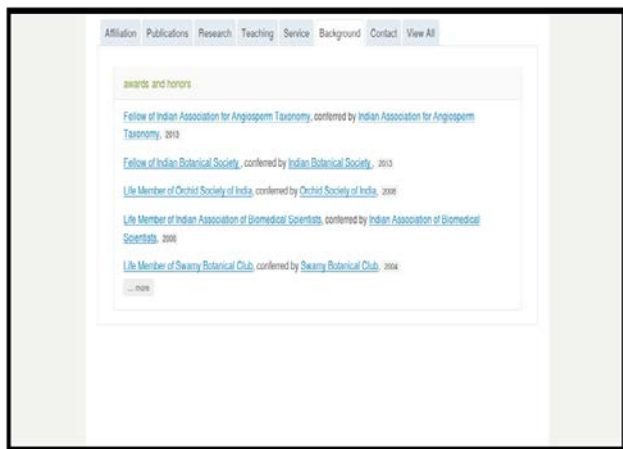


Fig. 6 Faculty Education Background details

G. Faculty Teaching and Service Details

The Faculty teaching activity details such as teaching overview, teaching achievements and teaching activities. The service details covers reviewer of journal or book, started year, end year and organized events of conference or workshop conducted so far. This will help us to identify the particular subject experts and their achievements and also over all experience in a domain.

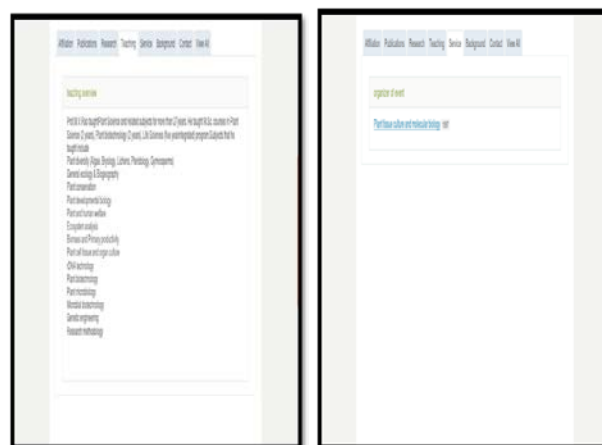


Fig. 7 Faculty Teaching and Service Details

H. Faculty Contact Details

The Faculty contact details such as full name, mailing address, geographic location and fax. This will be helpful to identify the expert’s communication address and personal address and based on this anyone can contact for fixing as an expert or to have a clarification of any subject matters.

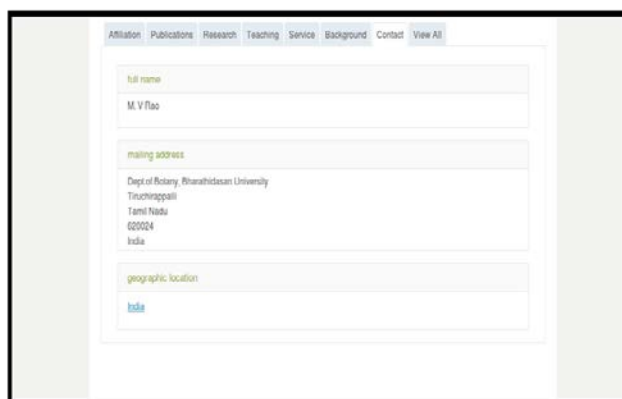


Fig. 8 Faculty Contact Details

I. Co-Author Network Profile of Faculty

The co-author network profile of faculty has the details of collaborated number of authors and also shows collaborators collaborating with another collaborator details and also to download the publication details in csv file for further process. This has the visualizing features to high light the networks.



Fig. 9 Co-Author Network profile of Faculty

J. Faculty Publication with DOI

This faculty publication with DOI has the details of all authors' publication with date and DOI. This will be helpful for Research Scholars and Faculty Members to get the latest articles in a single click and also to know the research impacts of an article.

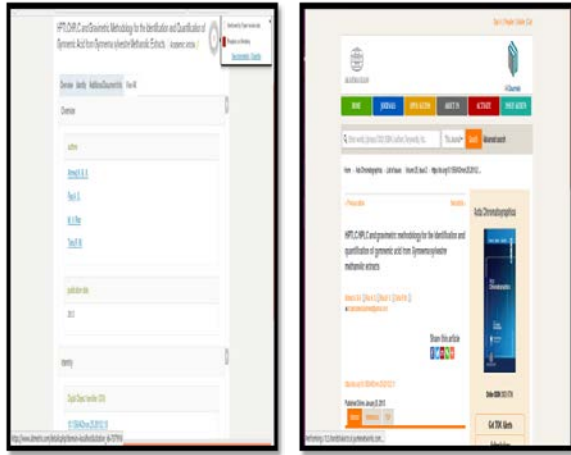


Fig. 10 Faculty Publication with DOI

VI. OUTCOME OF THE STUDY

The following are the outcomes of this study

1. It helps to organize and maintain the Bharathidasan University Faculty Profile in a single platform.
2. It helps to know the department faculty members, publications and h index.
3. It helps the faculty members to know about their list of publications and citations.
4. It helps to find out the faculty members area of specializations and expertise.
5. It helps to identify the collaborators of author, investigators and funding agencies.

6. It helps in the way to provide the latest articles of faculty members to the students and research scholars.
7. It helps to get the funding for the faculty publications.

VII. CONCLUSION

In present situation library has the major role to support the research activities of any institution and also to provide the research details for the Institutional Accreditation and Ranking systems. Hence it is very much important to setup and maintain the Research Information System by libraries in all academic and research institutions. This will serve for our students, research scholars, faculty members and administrators in providing current information on faculty details and research activities. In turn this will help institution to have more visibility, collaboration and funding.

REFERENCES

- [1] Alison D. Kissling & Kimberly D. Ballinger (2018) Implementation of a Research Information Management System in a Pediatric Hospital, *Medical Reference Services Quarterly*, 37(2), 184-197, <https://doi.org/10.1080/02763869.2018.1439224>.
- [2] Bharathidasan University. (n.d.). Retrieved from <http://www.bdu.ac.in/>
- [3] Bryant Rebecca & Clements Anna (n.d.). *Research Information Management: Defining RIM and the Library's Role*. Retrieved from <https://www.oclc.org/research/publications/2017/oclcresearch-defining-rim.html>
- [4] Jeyapragash, B., Muthuraj, A., & Rajkumar, T. (2018). *Profile Management System: With Special Reference to VIVO*. Retrieved from https://www.researchgate.net/publication/323933946_Profile_Management_System_With_Special_Reference_To_VIVO.
- [5] Jeyapragash, B., Muthuraj, A., & Rajkumar, T. (2018). *Research Support Service by using Profile Management System with Special Reference to VIVO*. Retrieved from https://www.researchgate.net/publication/327836403_Research_Support_Service_by_using_Profile_Management_System_with_Special_Reference_to_VIVO
- [6] Kannan, P. (2016). *Semantic-Based Profile Management System: A Case Study on VIVO*. Retrieved from https://www.researchgate.net/publication/309319539_Semantic-Based_Profile_Management_System_A_Case_Study_on_VIVO
- [7] VIVO Archive. (n.d.). Retrieved from <http://www.vivoweb.org/>