Electronic Theses and Dissertation Repository of Bharathidasan University: Content Development Process

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Abstract

This paper is a project based study on how the Theses and Dissertations are submitted from Bharathidasn University Library to the Inflibnet Shodhganga repository. Based on the problem the objectives were framed accordingly. The Shodhganga@INFLIBNET provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, and store, disseminate and preserve ETDs submitted by the researchers. This Study further discusses the steps, process and procedure by which ETD's are submitted to Shodhganga repository.

Keywords

ETD, Shodhganga, INFLIBNET. Bharathidasan University.

Electronic access

The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 4. No.2. 2015. pp.165-171

INTRODUCTION

Theses and dissertations are known to be the rich and unique source of information, often the only source for research work that does not find its way into various publication channels. However, theses and dissertations remain an un-tapped and under-utilized asset, leading to unnecessary duplication and repetition that, in effect, is the antitheses of research and wastage of huge resources, both human and financial. The UGC Notification (Minimum Standards & Procedure for Award of M.Phil.,/ Ph.D., Degree, Regulation, 2009) dated 1st June 2009 provides for submission of electronic version of theses and dissertations with an aim to facilitate open access to Indian theses and dissertation to the academic community world-wide. Online availability of electronic theses through centrally maintained digital repositories will not only ensure easy access and archiving of Indian doctoral theses but will also help in raising the standard and quality of research. This would overcome serious problem of duplication of research and poor quality resulting from the "poor visibility" and the "unseen" factor in research output. As per the Regulation, the responsibility of hosting, maintaining and making the digital repository of Indian Electronic Theses and Dissertation (Shodhganga) accessible to all institutions and universities is assigned to the INFLIBNET Centre.

SHODHGANGA @ INFLIBNET

The Shodhganga@INFLIBNET is set-up using DSpace, an open source digital repository software developed by MIT (Massachusetts Institute of Technology) in partnership between Hewlett-Packard (HP). The DSpace uses internationally recognized protocols and interoperability standards. The Shodhganga@INFLIBNET provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access. The repository has the ability to capture, index, and store, disseminate and preserve ETDs submitted by the researchers. Shodhganga Repository at INFLIBNET replicates academic structure of each university in terms of Departments/ Centers and School each university has. This structure facilitates research scholars from universities to deposit their theses in the respective Department/ Centre.

WHY SHOULD UNIVERSITIES JOIN SHODHGANGA, INFLIBNET CENTRE?

The UGC vide its Notification (Minimum Standards & Procedure for Award of M.Phil., / Ph.D., Degree, Regulation, 2009) dated 1st June 2009 (Appendix-I) provides for submission of electronic version of theses and dissertation by the researchers in universities in Shodhganga maintained by the INFLIBNET Centre. Universities that sign MoU with the INFLIBNET Centre and mandate submission of electronic version of their theses and dissertation to Shodhganga may get financial assistance from the UGC for digitizing their back-files of theses. Besides, UGC may also provide financial assistance to the INFLIBNET Centre for subscription to software tools that detect plagiarized portion of theses and dissertations. Access to software designed to detect plagiarism will be provided to universities that sign MoU with the INFLIBNET Centre for Shodhganga.In time to come, ETDs would become more commonplace, grant-giving agencies and accreditation bodies like AICTE, UGC and NAAC would make judgments regarding innovative universities by taking note of their initiatives such as ETDs and IRs.

SHODHGANGA SUBMISSION PROCESS

The Shodhganga repository at INFLIBNET replicates structure of each university in terms of Departments / Centres and School each university has. This structure facilitates researchers from each university to deposit their theses in the respective Department / Centre. While online submission of electronic theses by researchers / supervisor or university's representative under university's mandate is preferred, the INFLIBNET encourages individual researchers to submit their theses and dissertations either online or off-line (through E-mail or CD / DVD) on voluntary basis till universities adopt and implement UGC Notification, 2009. Workflow for submission of electronic version of theses and dissertations consists of the following six steps:

STEP 1: REGISTRATION/LOGIN

The Ph.D. student, his / her research supervisor or an authorized representative of the University (submitter), visits the INFLIBNET's ETD Web site and register himself / herself following the steps mentioned below.

a. Visit ETD Registration Website
b. Choose University and Department
c. Choose Role (Researcher / Guide / University Representative)
d. Enter e-mail ID (User-ID) and other details and upload scanned copy of certificate .

STEP 2: VALIDATION OF ACCOUNT

As soon as a submitter registers himself / herself, an e-mail alert is triggered alerting INFLIBNET Staff to validate the registered user and allow him / her to submit his / her thesis. As soon as the account is validated by the concerned INFLIBNET staff, an email addressed to the submitter is triggered with a web link prompting him / her to submit his / her thesis.

STEP 3: SUBMISSION OF CONTENT / METADATA BY REGISTERED USER

After validation of account, submitter is permitted to create metadata for his / her thesis and upload the content of his / her thesis. During the process of submission, the researcher (submitter) is also asked to grant non-exclusive rights to the INFLIBNET Centre to host his / her theses in the INFLIBNET's open access digital repository. In case, a user sends his / her thesis via e-mail / CD, the INFLIBNET staff will be responsible for creation of metadata and uploading the theses on behalf of the submitter.

STEP 4: VERIFICATION OF SUBMITTED METADATA AND CONTENT

The metadata created and chapter uploaded by the submitter will have to be verified for its completeness and correctness preferably by the research supervisor or university representative or alternatively by the INFLIBNET Staff. As soon as a submitter creates metadata for his / her theses and upload chapters of his / her theses, an e-mail is triggered to the research supervisors / university representative to verify correctness and completeness of theses submitted.

STEP 5: PUBLISH ON ETD REPOSITORY

Once the metadata and uploaded content are verified for its completeness and correctness in the process mentioned above, theses get published in the ETD repository. While the metadata of thesis could be made available on submission, the full-text of thesis would be published only after receiving confirmation of award of degree by the University through notification / e-mail confirmation (in cases where theses is submitted prior to award of theses).

STEP 6: INTIMATION TO STAKEHOLDERS BY SENDING NOTIFICATION TO RESEARCHER / GUIDE AND THE UNIVERSITY

Once full-text of theses is published in the INFLIBNET's ETD repository, all stakeholders including researcher, guide and the university will be informed through email which will be triggered automatically by the ETD repository. RSS Feed technology will be used to disseminate and deliver new content added to the ETD repository to the users.

OBJECTIVES

The objectives of the present study are:

1. To Upload the Ph.D theses submitted to Bharathidasan University using Shodhganga website.
2. To create electronic Theses and Dissertation as per the Shodhganga Strcuture.
3. To provide access facility for the dissertations to remote users through Shodhganga.
4. To provide preferred methods of retrieval of e-theses at institutional and national level.

METHODOLOGY

The Ph.D theses which are submitted to Bharathidasan University were uploaded in Shodganga database using the following steps.

1. Go to http://shodhganga.inflibnet.ac.in/ and choose the option to submit an ETD.
2. Create an account on Shodhganga's website. This will allow you to log into the ETD Administrator and return to your submission if you need to revise it. You will need to create a new user name and password just for this process.
3. Click on the link labeled "Submit new dissertation/thesis" and follow the step by step instructions provided to complete your ETD submission.
4. Please see the next section, Your ETD Publishing Options, for an explanation of the choices you will be asked to make during the submission process.
5. If you need to finish your submission later (for instance, if you need to update your PDF file before uploading it), you can save your information and come back to finish. No information will be lost.
6. After submission of your ETD is complete, Shodhganga will review the submission, contact you about any changes you need to make, and notify you and your committee when approval is finalized.

CONVERSION OF PRINTED THESES TO ELECTRONIC FORMAT

1. Conversion to plain-text format using Adobe Acrobat 7.0 Professional.
2. Conversion to Rich Text Format (RTF) using Open Soruce software.
3. Conversion to RTF using Adobe Acrobat 7 Professional.
4. Conversion to Multipage TIFF using Universal Document Converter 4.1.
5. Conversion to PDF/A using Adobe Acrobat 7 Professional.
6. Conversion to lossless JPEG2000 using Adobe Acrobat 7 Professional.
7. Conversion to Encapsulated PostScript (EPS) using Adobe Acrobat 7 Professional.
8. We also evaluated the alternative of not migrating at all, which leaves the documents in their original formats. As there are multiple versions of PDF, this of course incurs additional risks.

RESEARCH

The students and scholars of the Universities pursue active research in their domain areas, contributing to Projects, Articles etc.

GENERATION OF THESES

The research of result work carried out by the scholars and students will result in the outcome of Theses and Dissertations.

DEFENSE

The Scholar who has submitted his theses will try to defend his research in his viva voce examination in order to receive a Doctorate degree.

UNIVERSITIES SUBMISSION TO SHODHGANGA

After receiving the theses from the scholar, the University Library uploads it to Shodganga website for remote access and retrieval.

RETRIVAL PROCESS FROM SHODHGANGA

Once the thesis is uploaded in Shodhganga by the university, it can be accessed by the user from anywhere and in any time.

SHODHGANGA LOGIN PAGE



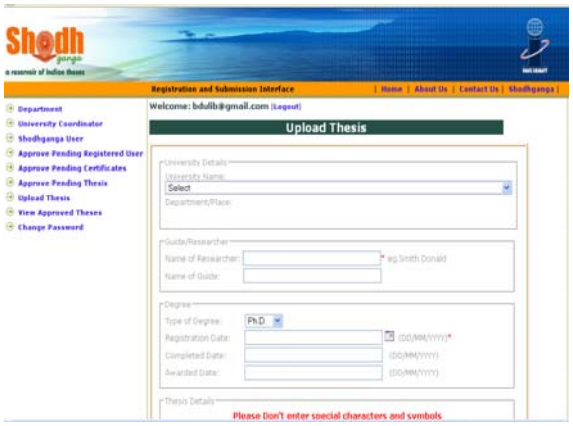
This is the login page of Shodhganga website. Every University is given an separate id and password. Once the e-mail and password is entered the university can go inside Shodhganga to upload the theses.

HOME PAGE TO UPLOAD THESES



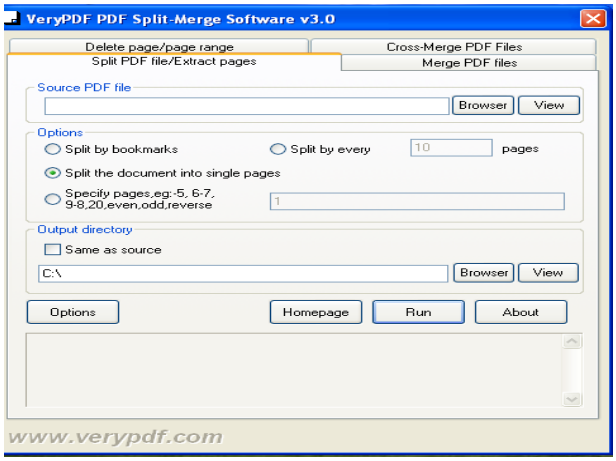
After logging into the Shodhganga website, it enters into the home page where they can upload their theses.

UPLOADING OF MERADATA



This page shows the process of uplading the theses in Shodhganga. Before uploading the theses the Metadata such as Title, guide, researcher etc for the theses have to be created. The software used by Shodhganga is Dspace which follows Dublin core Metadata elements.

SPLLITTING THE FLIE BEFORE UPLOADING



Before uploading the theses in Shodhganga, it has be split into single page using Split pdf software in order to upload it chapter by chapter.

SHOHDGANGA UPLOAD THESIS MAIN MENU

1. Name of University.
2. Name of Department.
3. Name of Research
4. Name of Guide.
5. Registration Date
6. Complied Date
7. Tile of the Research

8. Language
9. Types of Institute

The user can select any option and type the appropriate number based on the task he or she would like to perform. Once the selected number is typed, and then the result will be displayed on the screen in accordance with the option typed. If we select option 1, which is "THESIS FILE", an empty sub menu worksheet with the word "Module: ADD" at the top will be displayed on the screen of the computer. This option helps to add new information to the worksheet or to add to the computer newly acquired documents by the library. If the library staff selects option no.2 "DEPARTMENT file", the computer will display on the screen information pertaining to the various DEPARTMENT code, DEPARTMENT name, Title code and the Department code. If the library staffs choose option No.4 "Report file", a sub menu with the word "Query Menu" will be displayed on the screen. This submenu enables the library staff to generate reports according to Title code wise, Title wise, Author wise, and publisher wise. Option 0 (Zero) from the "THESIS Main Menu" allows the user of the system to exit to prompt

REPORTS

1. Department wise

This report is generated using DEPARTMENT wise database file. This report contains codes of various titles of a particular DEPARTMENT.

2. Title wise

This report is generated using THESIS database file. It contains list of theses under a particular title.

3. Author wise

This report is also generated using thesis database file. It contains list of theses written by a particular scholar.

4. Guide Wise

This report is generated using thesis data base file. This report contains list of thesis on a particular guide.

DEPARTMENT DETAILS OF THESES IN SHODHGANGA AT BHARATHIDASAN UNIVERSITY

Department Details	Records
Department of Animal Science	17
Department of Biochemistry	28
Department of Bioinformatics	12
Department of Biotechnology	34
Department of Botany	25
Department of Business Administration	38
Department of Chemistry	142
Department of Commerce and Financial Studies	170
Department of Computer Engineering and Technology	11
Department of Computer Science and Application	23
Department of Economics	85
Department of Educational Technology	20
Department of English and Foreign Languages	21
Department of Environmental Biotechnology	11
Department of Environmental Management	15
Department of Geography	10
Department of Geology	17
Department of History	20
Department of Library Information Science	8
Department of Marine Science	13
Department of Mathematics	42
Department of Microbiology	56
Department of Pharmaceutical Engineering and Technology	5
Department of Philosophy, Religion and Culture	6
Department of Physical Education & Yoga	26
Department of Physics	26
Department of Plant Science	10
Department of Rehabilitation Science	15
Department of Social Work	7
Department of Sociology	10
Department of Tamil Studies	25
Department of Zoology	24
Kalai Kaviri College of Fine Arts	1
Bharathidasan Institute of Management	5
Centre for Remote Sensing	2
Total No of Theses	980

This table shows the department wise list of theses uploaded in Shodhganga.It is clearly seen from the table that 170 theses uploaded in Shodhganga were from the Department of Commerce and Financial Studies followed by 142 theses from the Department of Chemistry and 56 theses from the Department of Microbiology.

CONTRIBUTION OF TAMIL NADU STATE UNIVERSITIES' TO SHODHGANGA

UNIVERSITIES FROM TAMIL NADU	RECORDS
Alagappa University	11
Annamalai University	69
Anna University	2769
Avinashilingam Deemed University for Women	115
Bharathiar University	489
Bharathidasan University	686
Bharath University	20
B S Abdur Rahman University	13
Kalasalingam University	15
Manonmaniam Sundaranar University	737
Mother Teresa Womens University	194
Periyar Maniammai University	4
Periyar University	785
Prist University	11
SASTRA University	38
Saveetha University	4
Sri Ramachandra University	94
SRM University	142
St. Peter's University	18
Tamilnadu Physical Education and Sports University	26
Tamil University	5
University of Madras	1
Vels University	36
Vel Tech Dr. R R & Dr. S R Technical University	6
VIT University	94
V O Chidambaram College of Education	2
TOTAL	6089

This table shows the contribution of Ph.D theses by the State universities in Tamil Nadu to Shodhganga.It is clearly seen from the table that Anna University stands first with 2769 records followed by Periyar University and Manonmaniam Sundaranar University with 755 and 661 records respectively. It is also noted that well reputed Universities Such as Madras University has contributed very few thesis to Shodhganga project.

CONCLUSION

Bharathidasan universities play a major role in generation and dissemination of knowledge by conducting research works and producing Ph D theses as a unique genre of information sources. Every year, nearly 400-600 Ph. Ds were awarded. The purpose of the thesis is to provide an experience in scholarship, which will be of enduring value to the student in understanding how new knowledge is acquired and communicated within the chosen field. These works contain valuable content, including focused literature reviews and details on research, which are not generally made available elsewhere. Before that, most unpublished theses are hard to get hold of, as they are filed only in the university library where the student has worked. The Indian thesis literature is beset with many problems like Lack of Systematic acquisition, Lack of Access, Uncertain publication practice, Enormous Growth in the number of theses etc.The Shodhganga was developed by INFLIBNET which could meet the above requirement. The Shodhganga is maintained and integrated with existing information system so as enable to continue entry and upload the newly submitted thesis. Electronic theses and dissertations are only one small part of the move to make information available through electronic means to as wide an audience as possible, and to allow scholars to continue to do what they have always done and participate in the creation of knowledge. The greatest advantages of Shodhganga ETDs are avoiding duplication in research work, ensuring quick retrieval of information, and providing a permanent solution to the problem of space. INFLIBNET is now taking steps in this direction. It has started developing a complete national union catalogue of Shodhganga ETDs in India. ETD Awareness program/ promotional activities- an improved understanding of the issues and options can encourage cooperation among institutions that are planning or have implemented ETD programs. There is a need to sensitize all the stakeholders about the need and issues involved in the creation of ETDs. Workshops and training programs for both students and faculty need to be conducted on issues of copyright, choice of access, and encourage researcher to submit theses online. Many ETD repositories have the problem regarding copyright issues and fear of plagiarism, unwillingness of faculty and researchers for submission of their materials, lack of policy to safeguard the long term preservation of the deposited materials, lack of skilled human resource etc. which can be disastrous for ETD policies. Thus people and institutional interest must be constant and effective. UGC Regulations will play a vital role in developing Shodganga ETD repositories in India by making it

mandatory to deposit a soft copy of thesis to its database.

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