

Open access to Physics and Astronomy
Theses – a case study
of the Raman Research Institute Digital
Repository

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Outline

1. About RRI
2. Existing E-theses collection
3. Software selection
4. Digitization and workflow
5. Policies and Guidelines
6. Metadata format
7. Future Enhancements
8. Conclusions

About the *Raman Research Institute*

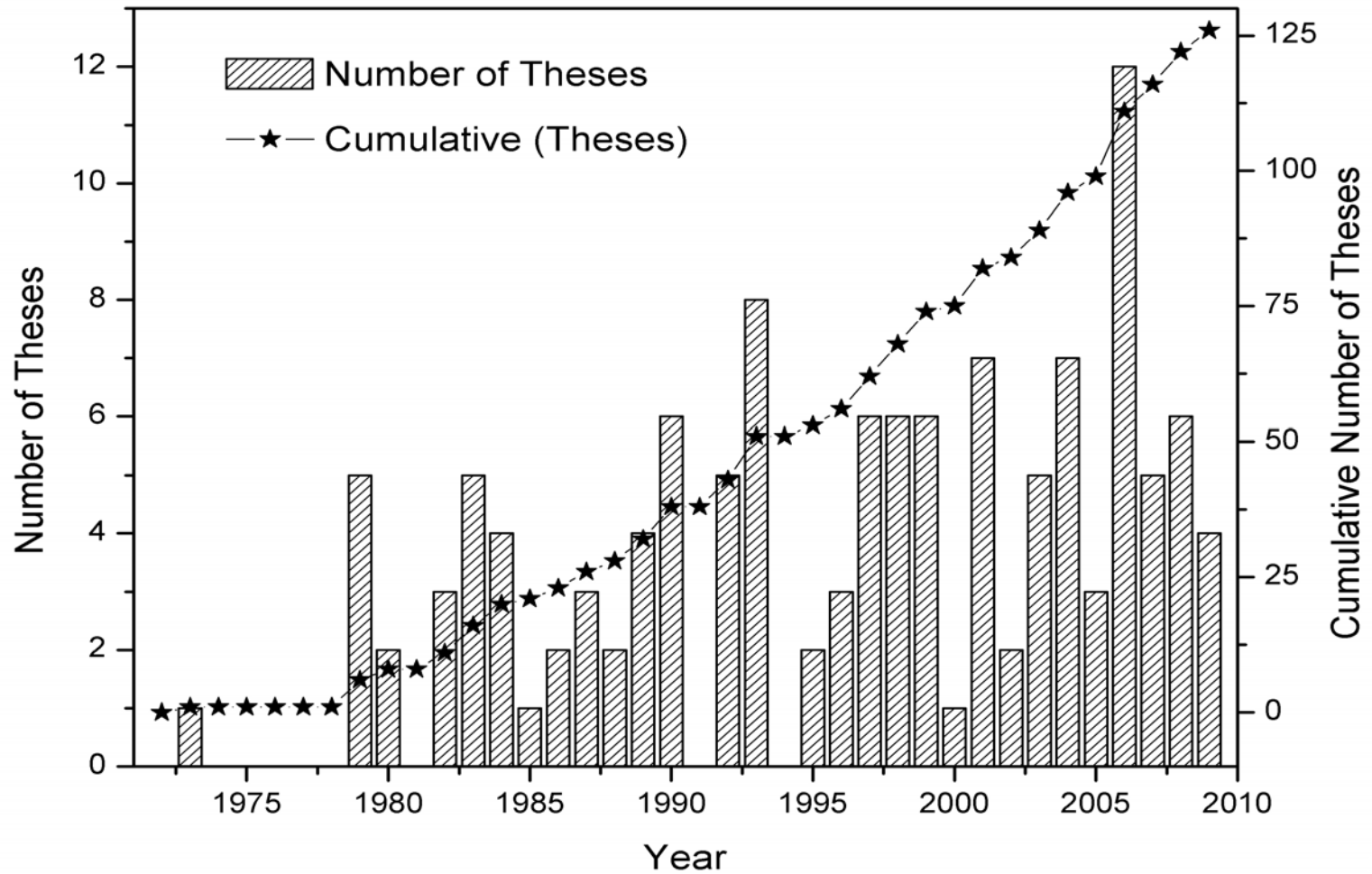
Founded by the Nobel laureate **Sir C.V.Raman**
in 1948

- The institute was reorganized in 1972 and started receiving funds from the Department of Science and Technology, Government of India.
- Research activities of the institute are in the areas of
 - Astronomy and Astrophysics
 - Theoretical Physics
 - Soft Condensed Matter Physics
 - Light and Matter Physics

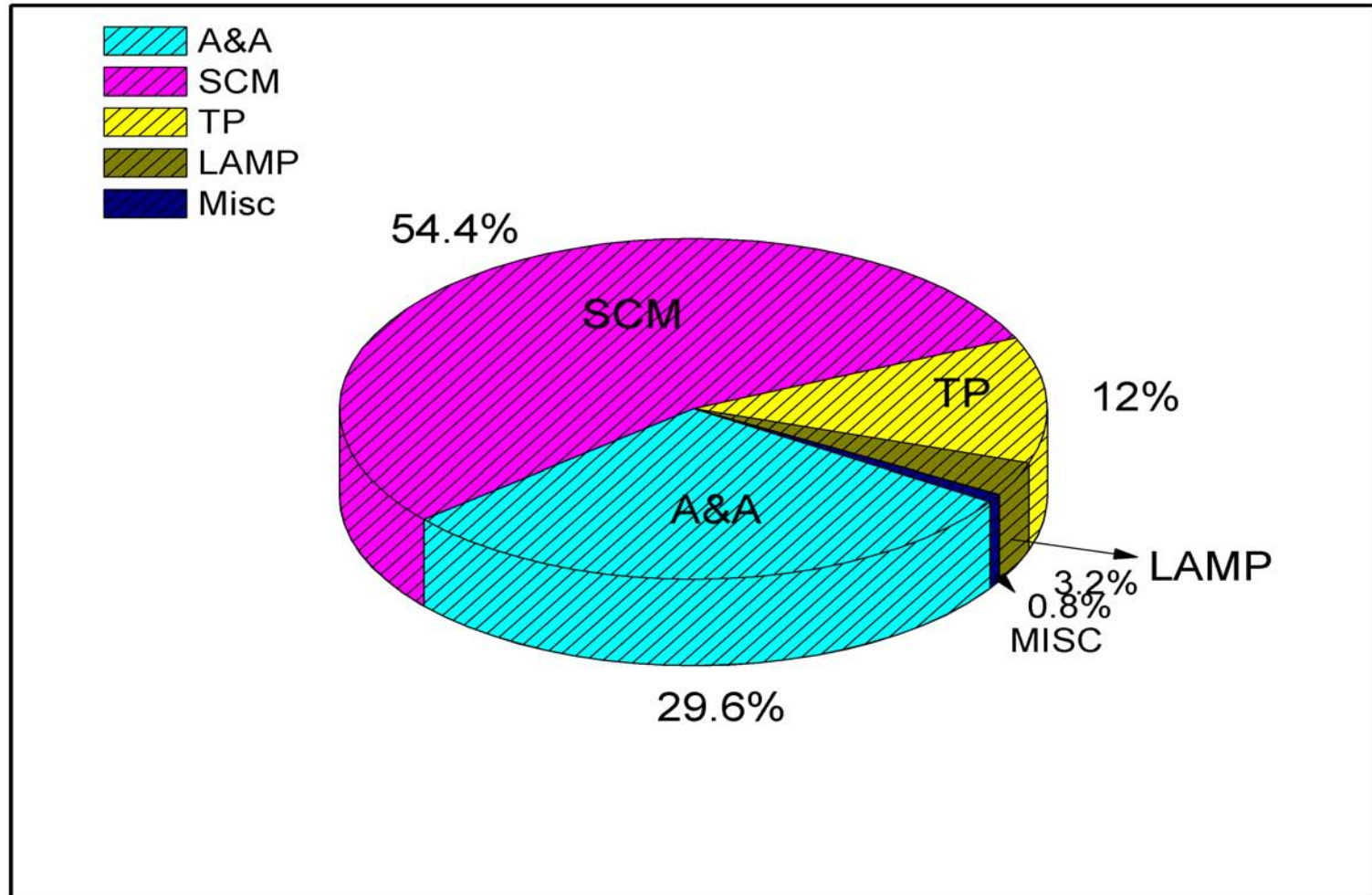
About the RRI (Contd.)

- At present we have 57 full-time Ph.D. Students and 40 faculty members. We also have some Postdocs and several visiting students
- We have a collection of theses in the research areas of the institute

Year wise number of theses published



Department wise breakup of theses



Why open access to E-theses?

Peter Suber says :

“Theses are the most invisible form of useful literature and the most useful form of invisible literature”.

“They are high in quality and low in accessibility”

Peter Suber, “Open access to Electronic Theses and Dissertations”. DESIDOC Journal of Library and Information Technology, Vol. 28. No 1, January 2008, pp 25-34.

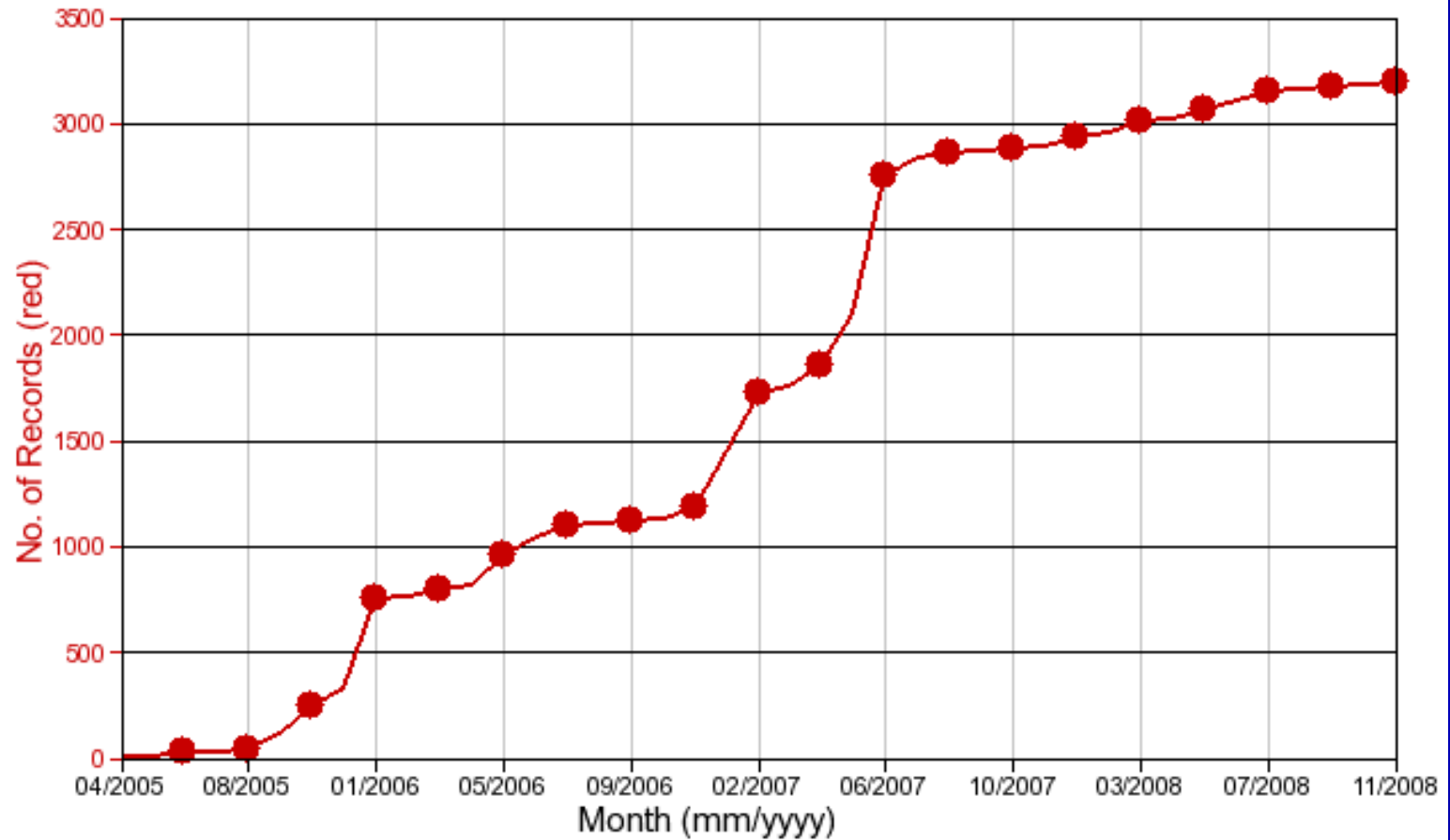
Why open access to E-theses ? (Contd.)

- Easy to get consent from authors and theses advisors unlike journal articles
- No publisher or copyright problem exists like journal articles to go open access
- Compared the journal articles, theses are immediately accessible if once posted in IR
- It benefits the authors, supervisors and as well as the Institutions

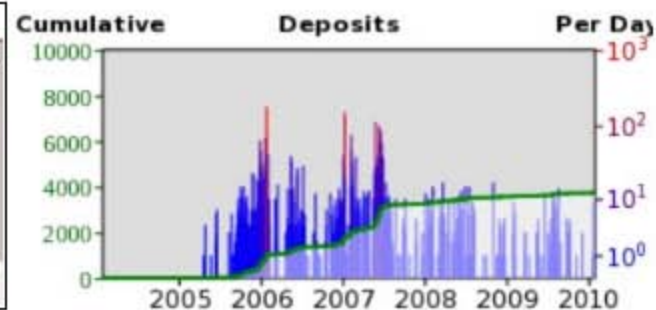
Software Selection

- We already had a well established institutional repository on Dspace since 2006.
- It was decided to upload E-theses on our existing repository because we wanted to make everything available at a central place
- ETD was launched on our repository in the year 2008.
- According to latest webometrics ranking of world repositories, Our repository is at 265th position out of 400 repositories

Generated by <http://archives.eprints.org/>



Raman Research Institute Digital Repository



Record

ROAR ID: 1055
Home Page: <http://dspace.rii.res.in/>
Repository Type: Research Institutional or Departmental
Software: [DSpace](#)(version other)
Country: [Asia > India](#)

Location:

Country	City	Longitude	Latitude
India	Bangalore	77.5944	12.9716

Birth Date: 19 April 2005 06:50:47 +00:00

Record Count: 3731

Record Count History:

Daily Deposit Activity¹:

Low Rate	Medium Rate	High Rate
37	4	0

OAI-PMH Interface: <http://dspace.rii.res.in:8080/oai/request?Identify?ListMetadataFormats>

Other Registries:

[OpenDOAR](#)
[Celestial](#)

Current Configuration of the RRI Digital Repository

As on 20th January 2008

Home URL: <http://dspace.rr.res.in/>

IR Software: Dspace Version 1.5.1

Software:

- 1. Apache Tomcat -> 6.0.18**
- 2. Apache Maven -> 2.0.9**
- 3. Apache Ant -> 1.7.1**
- 4. JDK (Sun Java) -> 1.6.0_10**
- 5. PostgreSQL -> 8.3**
- 6. DSpace -> 1.5.1**

Current Configuration of the RRI Digital Repository (contd.)

Server:

**2U Rackmount server with
Dual Processor Dual Core AMD 2220
16GB DDR2 ECC RAM
2 X 250GB SATA disks
Redundant Power Supply**

Digitization and workflow

- From 2004 onwards we started getting theses in electronic form and earlier to this we had the theses only in printed form.
- So it was necessary to scan about 80 percent of our collection.

Digitization and workflow (contd.)

- Our library is equipped with a HP scanner scan jet 8390 and its accessories. In 2006 with this equipment, we started scanning and the scanned data was saved in PDF format and OCR is used to make full text searchable.
- Library staff upload theses to the repository after making essential content processing. Submission follows only two steps : submitter submits it and metadata editor approves and posts it.

Policies & Guidelines

- Most of the RRI theses were generated before the electronic submission was initiated in 2004.
- Library has sent approval forms to old students to get their consent for posting e-theses in the repository. Due to good response, we have received approval for 80% of the theses.
- Theses for which we have got permission have been made OA . The others are available only on the intranet
- Copy right information is clearly given in each record.

Thesis Approval Form

RRI Digital Repository (RRI DR)
Electronic Theses and Dissertations (ETD)
Approval Form

Name of the Author	ABHIJIT GHOSH
Department	THEORETICAL PHYSICS
Degree	PHD
University	JAWAHARLAL NEHRU UNIVERSITY
Guide	PROF. JOSEPH SAMUEL
Thesis Title	SEMIFLEXIBLE POLYMER ELASTICITY
Year of Award	2008

email : - abhijit@rri.res.in Agreement gubun@gmail.com

- I hereby certify that, if appropriate, I have obtained and attached hereto a written permission / statement from the owner(s) of each third party copyrighted matter to be included in my thesis / dissertation, allowing distribution as specified below.
- I certify that the version I am submitting is the one submitted and approved by the University.
- I hereby grant to **RRI Digital Repository** the non-exclusive license to archive and make accessible, under the conditions specified below, my thesis / dissertation, in whole or in part in all forms of media, now or hereafter known. I retain all other ownership rights to the copyright of the thesis / dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis, dissertation, or project report.

Conditions: 6 months. can go for web.

1. Release the entire work for access worldwide	<input checked="" type="checkbox"/>
2. Release the entire work immediately for RRI Digital Repository only	<input type="checkbox"/>
3. Release the entire work for 'My University' only for 1 year,	<input type="checkbox"/>
2 years,	<input type="checkbox"/>
3 years	<input type="checkbox"/>
and after this time release the work for access worldwide.	

RRI Digital Repository (RRI DR)
Electronic Theses and Dissertations (ETD)
Approval Form

4. Release the entire work for 'My University' only, while at the same time releasing the following parts of the work (e. g. because other parts relate to publications) for worldwide access:	
a) Bibliographic details, synopsis only	<input type="checkbox"/>
b) Bibliographic details, synopsis and the following chapters only	<input type="checkbox"/>
c) Preview Table of Contents / 24 page only	<input type="checkbox"/>
5. View Only (No Downloads) (world wide)	<input type="checkbox"/>

Abhijit Ghosh
Signature of the Scholar

Joseph Samuel
Signature and seal of the Guide

Place RRI, BANGALORE
Date 10/1/2008

E-theses Displayed in IR under each main community as collection

The screenshot shows a web browser window titled "RRI Digital Repository: Communities and Collections - Mozilla Firefox". The page header includes the RRI logo and the text "e-संग्रह" on the left, and "RAMAN RESEARCH INSTITUTE Digital Repository" on the right. The main content area is titled "Communities and Collections" and lists seven categories with their respective counts and sub-items:

- 01. Archives [752]**
 - Annual Reports [30]
 - Gandhi Memorial Lectures [13]
 - Newspaper Clippings [709]
- 02. C.V. Raman and his work [514]**
 - Biographical Sketches and Other Articles on Raman [12]
- 03. Science at the Raman Institute: 1948-1970 [61]**
 - Research Papers [61]
- 04. Astronomy and Astrophysics [790]**
 - Research Papers (A&A) [749]
 - Technical Reports (A&A) [4]
 - Theses (A&A) [37]
- 05. Light and Matter Physics [144]**
 - Research Papers (LAMP) [139]
 - Theses (LAMP) [5]
- 06. Soft Condensed Matter [976]**
 - Patents (SCM) [1]
 - Research Papers (SCM) [907]
 - Theses (SCM) [68]
- 07. Theoretical Physics [434]**
 - Research Papers (TP) [417]
 - Technical Reports (TP) [2]
 - Theses (TP) [15]


The left sidebar contains a search box, a "Go" button, and a list of navigation links: Home, Browse (Communities & Collections, Issue Date, Author, Title, Subject, Statistics), Sign on to (Receive email updates, RRI Repository authorized users, Edit Profile), Help, and About DSpace. The Windows taskbar at the bottom shows the Start button, WinQVT/Net v3.9, Removable Disk (F:), Microsoft PowerPoint, and RRI Digital Repositor... with the system clock at 6:49 PM.

Metadata details for a theses record

RRI Digital Repository: A study of radio recombination lines from the galactic plane at 325 MHz. - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

Mount Abu Travel Guide, Mount Abu To... RRI Digital Repository: A study o...

 **RAMAN RESEARCH INSTITUTE**
Digital Repository

Please use this identifier to cite or link to this item: <http://hdl.handle.net/2289/3302>

Title: A study of radio recombination lines from the galactic plane at 325 MHz.
Authors: Anantharamaiah, K.R.
Thesis Advisor: Radhakrishnan, V.
Subject: Astronomy and Astrophysics
Issue Date: 1984
Publisher: Raman Research Institute, Bangalore.
Citation: Ph.D. Thesis, Bangalore University, Bangalore. 1984
Description: Open Access
URI: <http://hdl.handle.net/2289/3302>
Copyright: This thesis is posted here with the permission of the author. Personal use of this material is permitted. Any other use requires prior permission of the author. By choosing to view this document, you agree to all provisions of the copyright laws protecting it.

Appears in Collections: Theses (A&A)

Files in This Item:

File	Description	Size	Format	
Appendix.pdf		947.66 kB	Adobe PDF	View/Open
Chapter 7.pdf		510.31 kB	Adobe PDF	View/Open
Chapter 6.pdf		938.39 kB	Adobe PDF	View/Open
Chapter 5.pdf		105.00 kB	Adobe PDF	View/Open

Done

Salient Features

- One of the limitations is that some old theses submitted before the electronic submission requirements (2004) cannot be made open to public until we get consent for open access.
- In cases where there is no consent for open access we have made it accessible through local area network.
- Theses are submitted to repository by Library staff and the common fields while entering metadata are pre-filled to save time.
- Earlier, library used to spend a lot of time in getting access rights. At present this problem is solved by taking consent from authors at the time of submission of the theses.

Future Enhancements

- To conduct workshop and training programs for both students and faculty on issues of copyright, choice of access, this in turn encourage researcher to submit theses for our IR.
- Online theses submission by students and faculty to be incorporated so that they can learn about electronic publishing and digital libraries
- Feedback form to be designed so that users can upload multimedia and text files along with their suggestion and queries

Future Enhancements (Contd.)

- In coming years we are planning to link to supervisor's home page from ETD metadata so that users can view the number of students guided and subject interest of the supervisor.
- To provide option for browsing by thesis supervisor.
- To provide clear authenticity and access rights by incorporating certified theses approval form of students.

Conclusions

- RRI e-theses are OAI-PMH compliant and items can be retrieved through search engines
- This has great advantage as it has increased the visibility of the e-theses and encouraged our alumni to grant permission to their theses to go for open access.
- It collects and preserves all the E-theses of the institute in a central place - thus making them available to our students and researchers whenever needed. It thus enhances the teaching, learning and research of the institute

Conclusions (Contd.)

- By giving open access to E-theses library can conserve paper and staff time.
- Multi-accessibility : at a time many users can use ETD
- Ability to have hyperlink to the theses and dissertation from homepage of individuals
- We hope showcasing our E-theses will enhance the prestige of the institute and the visibility of the students and faculty.

Thank you

