



# Dhirubhai Ambani Institute of Information & Communication Technology

## Shodhganga – Inflibnet Centre

The screenshot shows the homepage of the Shodhganga@INFLIBNET website. The header includes a navigation menu with 'Home', 'Browse', and 'Help' options, along with a search bar and a 'Sign on to:' dropdown. The main content area features the Shodhganga logo and the text 'a reservoir of Indian theses @ INFLIBNET'. Below this, there is a green banner with the DA-IICT logo and the text 'Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT) : [73] University home page'. A 'Recent Submissions' section is visible, followed by a 'Browse' section with filters for 'Upload Date', 'Researcher/Guide', 'Title', and 'Keyword'. The 'Discover' section is partially visible at the bottom.

The screenshot shows the search results page on the Shodhganga website. The search criteria are 'Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)' sorted by 'Upload Date' in descending order. The results table shows the following entries:

Upload Date	Title	Researcher	Guide(s)
5-Aug-2022	Copy move tampering some new approaches of the detection and localization in a digital image	Diwan, Anjali	Roy, Anil K.
5-Aug-2022	Modeling performance and power matrix of disparate computer systems using machine learning techniques modelling compiler systems selection	Mankodi, Amit	Bhatt, Amit and Chaudhury, Bhaskar
5-Aug-2022	Design of broadband microwave absorbers using carbonyl iron filled silicon rubber sheets in the frequency range of 1 to 8 point 2 GHz	Vashisth, Rahul	Chodgaonkar, Deepak K.
5-Aug-2022	Classification techniques of PolSAR Images	Gadhya, Tusharkumar	Roy, Anil K.



# Dhirubhai Ambani Institute of Information & Communication Technology

shodhganga.inflibnet.ac.in/handle/10603/397697

Home Browse Help Search Shodhganga Sign on to

## Shodhganga : a reservoir of Indian theses @ INFLIBNET

The Shodhganga@INFLIBNET Centre provides a platform for research students to deposit their Ph.D. theses and make it available to the entire scholarly community in open access.

**Shodhganga@INFLIBNET / Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)**  
Department of Information and Communication Technology

Please use this identifier to cite or link to this item: <http://hdl.handle.net/10603/397697>

**Title:** Copy move tampering some new approaches of the detection and localization in a digital image

**Researcher:** Diwan, Anjali

**Guide(s):** Roy, Anil K.

**Keywords:** Engineering and Technology  
Computer Science  
Imaging Science and Photographic Technology  
Digital images  
Image processing  
Imaging systems  
Images, Photographic  
Image compression  
Random noise theory  
Embeddings (Mathematics)

**University:** Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)

**Completed Date:** 2022

**Abstract:** Digital images speak. They tell us stories. Digital images carry plethora of information. The availability of cost-effective digital camera-enabled devices has made capturing images a child's play. Statistics witnesses that the use of social networking sites has influenced people's appetite for digital images. Billions and billions of photos are uploaded, shared and forwarded on these platforms. This makes every user an active source of the digital information. The availability of easy-to-use image editing software helps novice and experts as well, capable of creating realistic alterations in these digital images. These alterations could be harmless changes for fun or serious image tampering with malicious intentions. This fact raises eyebrows and questions the authenticity of a digital image. When these digital images are used for specific purposes like news broadcasts, research publications, sports, entertainment, fashion, advertisements, legal proceedings etc., this problem becomes more critical and challenging. Therefore, digital image tampering has since long attracted the research community of image processing. Among various tampering operations, copy-move tampering is one of the easiest approaches and therefore the most common approach. In the copy-move tampering process, copying and pasting are done on the same image. Hence colour, noise component, intensity range and other properties of the image remain almost unchanged. It makes tampering detection difficult when no clue about the tampering is available other

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**Copy-Move Tampering: Some New Approaches of the Detection and Localization in a Digital Image**

by  
**ANJALI DIWAN**  
201521013

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of  
**DOCTOR OF PHILOSOPHY**

in  
**DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY**

  
June, 2022

2:31 PM 02-12-2022

MR. PRASANN KUMAR  
FOR RC Record.

✓  
20/8

## INFLIBNET Centre

### Memorandum of Understanding (MoU) for Shodhganga/Shodhgangotri (A Repository of Theses and Dissertations submitted to the Universities in India)

This Memorandum of Understanding (MoU) is made and entered into on 20/8 (Day) AUG. (Month) 2015 (Year) between the INFLIBNET Centre, an IUC of University Grants Commission, located at Gandhinagar, hereinafter referred to as "INFLIBNET" and Dhruvshai Ambani Institute of Prof. of Comm. Technology University / Deemed University / Inter-University Centre), here in after referred to as the 'University'. (2041157)

WHEREAS, INFLIBNET Centre, an Inter-university Centre of the University Grants Commission, as its mandate, promotes open access to scholarly content generated in universities. The Centre has computers, network, software infrastructure and technical know-how required for hosting electronic versions of theses and dissertations in open access with interface to search, retrieve and access these content.

Dhruvshai Ambani Institute of Prof. of Comm. Technology  
WHEREAS Dhruvshai Ambani Institute of Prof. of Comm. Technology (University / Deemed University / Inter University Centre) has agreed to take part in the process of digitisation of old theses and dissertations (not available in computerized machine-readable format) and building-up of digital repository and to promote, share and host its ETD in 'Shodhganga: A reservoir of Indian theses submitted to the Universities in India' and other universities in open access. 'Shodhganga' is a name coined by INFLIBNET Centre for referring to the repository of Indian Electronic Theses and Dissertations. The word "Shodh" originates from Sanskrit and stands for research and discovery. The 'Ganga' is the holiest, longest and largest river in Indian subcontinent which has held heart of its people captive and drawn millions of people to its banks since the dawn of history. The Ganga is the symbol of India's age-long culture and civilization, ever changing, ever flowing, ever loved and revered by its people. "Shodhganga", a repository of theses and dissertations submitted to Indian universities, is expected to keep growing to a formidable size as more and more researchers from India submit their research works to this ever growing reservoir. Under the initiative called "ShodhGangotri", research scholars / research supervisors in universities are requested to deposit electronic version of approved synopsis submitted by research scholars to the universities for registering themselves for the Ph.D programme.

This Memorandum of Understanding (MoU) defines responsibilities, liabilities and commitments of the institutions involved to ensure proper system implementation, to meet the objectives pertaining to submission and access to Electronic Theses and Dissertations as envisaged by the UGC vide its Notification (Minimum Standards & Procedure for Award of M.Phil/Ph.D Degree), Regulation, 2009 dated 1st June, 2009.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, INFLIBNET and the University agree to the following terms and conditions:

#### I. INFLIBNET Centre

1. Provide access to ETD hosting server(s) at the INFLIBNET Centre 'Shodhganga'/'Shodhgangotri' to the University with accompanied software interface enabling University / its student to create metadata and upload their theses and dissertations in ETD repositories designed for this purpose. The INFLIBNET will take the responsibility of keeping the data intact and usable, keep back-up of the data so as to avoid its loss. The INFLIBNET will deploy

tools and techniques of digital preservation to ensure continuing access to scholarly content in digital formats and to protect them from media failure, physical loss and obsolescence.

2. Recommend to the UGC to extend financial assistance to the Universities under Sections 12(B) and 2(f) of UGC Act for digitization of theses and dissertations not available in computerized machine-readable format and / or for procurement and installation of a suitable computer system / infrastructure for creation of ETDs.
3. Provide configuration of system, specifications and technical guidance to the University for procurement of computer hardware and related systems for setting-up of ETDs.
4. Provide guidelines, technical standards and specifications for digitization of Ph.D. theses submitted to the university in past and for theses not available in computerized machine-readable format.
5. Impart training to at least one person from the university (from library field and / or from computer field) in creation, updation and computerized operation of digital repositories of ETDs especially on 'Shodhganga'.
6. Extend access to an anti-plagiarism software or provide services to evaluate theses for possible plagiarism and submit a report to the concerned university.
7. The INFLIBNET may refuse to host any material deemed by the INFLIBNET to be controversial in nature or is in violation of copyright act.
8. This right of refusal will not relieve the University / Ph.D. scholar of liability, both to INFLIBNET and to the public, for matter contained in the theses that may be libelous or actionable and to both INFLIBNET and copyright owners for copyright infringement by the Ph.D. Scholar.
9. The INFLIBNET Centre will not be responsible for i) errors, omissions, inaccuracies and quality of content or misinformation or for any damages caused to the user or any third party from the use of content provided in the theses; ii) safety and archiving of loaded content in cases of "force majeure" including natural calamities; and iii) printed version of theses.
10. INFLIBNET Centre will recommend or provide access to plagiarism software which university may use to detect plagiarism before awarding the degree.
11. The INFLIBNET Centre replicates the content of theses and dissertations on different server and other auxiliary storage media. However, the INFLIBNET Centre does not take the responsibility for the archiving or backing-up of loaded content. The universities, therefore, should also keep a back-up of their theses and dissertations.

12. INFLIBNET Centre also maintains a repository called "Shodhgangotri" for hosting the approved synopses of research topic submitted to the universities by the students for registering themselves under the doctoral programme. Research students/their supervisors are encouraged to submit approved synopses/research proposals and register their priority on a research proposal through the repository.

## II. The University

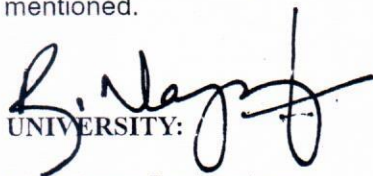
1. The University would grant non-exclusive worldwide license to the INFLIBNET Centre for hosting and distributing their theses in digital format in 'Shodhganga/' 'Shodhgangotri' or any other server designated for this purpose.
2. The University / its researcher scholars agree to host / upload a computerized machine-readable file in mutually agreed format of all theses on to the 'Shodhganga/' 'Shodhgangotri' server at the INFLIBNET.
3. The University will not hold INFLIBNET Centre responsible for any errors and omissions contained in the original theses.
4. The University commits to digitize theses and dissertations and their bibliographic records submitted to the university and provide necessary infrastructure including manpower support for operation of ETDs.
5. Commits to utilize the assistance provided by the UGC on recommendation of the INFLIBNET for implementation of ETDs including their digitization.
6. Deputes at least one person from the university (from library field or from computer field) for undergoing training on implementation of ETD organized by the INFLIBNET and ensure that the person trained by INFLIBNET on ETD is / are deployed for the same job.
7. Arranges to provide training to research scholars or users of its library and staff of colleges affiliated to University in creation of electronic version of theses and their deposition in the ETDs.
8. Ensures use of standard software and metadata schema suggested / provided by the INFLIBNET for setting-up / development / operation of its ETDs .
9. Creates bibliographic records of all theses and dissertations submitted to the university in standard bibliographic formats prescribed by the INFLIBNET Centre from time-to-time and contributes these records for inclusion in the INFLIBNET's Union Catalogue (IndCat).
10. Commits to sharing of library ETD resources / databases with the INFLIBNET Centre as well as with other universities.

11. The University would agree to host their ETDs in the digital repositories 'Shodhganga or other servers' set-up at the INFLIBNET Centre, and grant non-exclusive licence to the Centre to make electronic version of theses in full-text (theses that are born digital as well as those that are digitized using scanners / digital cameras) accessible through open access ETD.
12. The University shall not use electronic version of theses digitized using funds given by the UGC for any commercial purposes. The University shall not rent, sell or license the use of or deliver or release or otherwise part with the possession of the systems / software or the INFLIBNET ETDs databases, Shodhganga or any part thereof to any other party (individual, institution, organization, etc.)
13. The University will also commit their own funds or grants for fulfillment of the project, if the project on implementation of ETDs demands more resources and funds to complete it.
14. The University will use the plagiarism software recommended by the INFLIBNET and made accessible to test the thesis submitted by the student for plagiarism before awarding the Degree. If the university is not subscribing to such software, it will use the software from the nearest Regional Centre, if any.
15. University would encourage and ensure that Research Scholars/ Research Supervisors deposit host their approved Research Proposals/ approved synopses on the "Shodhgangotri" once Ph.D. is registered.

### III. Termination

Both, the Parties, will have rights to terminate the MoU at any time in case of breach of obligations and terms and conditions of the MoU. This MoU signed hereunder may be terminated by either party at anytime upon ninety (90) days prior written notice. Upon termination of this Agreement, the INFLIBNET / University will stop hosting their theses immediately while keeping the theses already deposited by the University in its archives for its users. The University shall stop using the INFLIBNET's ETD facilities and databases and return any software / hardware or digitized content provided by or through the INFLIBNET, back to INFLIBNET within the 3 months notice period.

IN WITNESS WHEREOFF, the parties hereto executed this MoU on this date above mentioned.

UNIVERSITY: 

Vice Chancellor / Registrar  
or designated authority.

(Name, Signature and Seal)

**Dr. Nagaraj R.**  
**Director**  
**DA-IICT, Gandhinagar.**



INFLIBNET: 

**Dr. Jagdish Arora,**  
Director  
INFLIBNET Centre,  
An IUC of University Grants Commission,  
Infocity, Gandhinagar - 382 007.

