B.B. DIKSHIT LIBRARY
ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI - 110029

27th December, 2016

Subject: Digitizing, Archiving and Preserving of Doctoral and Medical Theses and Dissertations of AIIMS, New Delhi through ETD and PQDT software on proprietary basis

Inviting comments thereon

With the permission of the competent authority of AIIMS, library is going to digitize all the print theses & dissertations with Metadata for easy retrieval and upload it on digital rights management system which is acceptable worldwide i.e. ETD and PQDT of M/s ProQuest. We have received the attached proposal from a well known and established firm M/s ProQuest to complete this task in very professional way. This firm has successfully completed this type of digitization project in so many universities in India (like SHODHGANGA-a project of UGC for digitization of Theses & Dissertations).

The relevant documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the items within 15 days.

The comments should be sent by post to **"The Chief Librarian, B.B. Dikshit Library, AIIMS, New Delhi-110029" or e-mail: chieflibrarian.aiims@gmail.com** , failing which it will be presumed that any manufacturer/vendor is having no comments to offer and case will be decided on merits.

Dr. S. Siva Chidambaram
Chief Librarian

Dr. S. Rajeshwari
Professor Incharge/Library

Encl: Related documents

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110029

~~**RESEARCH SECTION**~~

PROPRIETORY/SPECIFIC BRAND GOODS CERTIFICATE

1. Item/Type/Model No. required alongwith specification. — Digitizing, Archiving and Preserving of Doctoral and Medical Thesis and Dissertations of AIIMS, New Delhi through ETD and PQDT M/s on proprietary basis.
2. Is the item a spare parts attachment or accessory for an existing equipment. — Establishing ETD
3. Name of the manufacturers/supplier of the item proposed by the Indentor. — M/s. ProQuest
4. Are they sole manufacturers/sole distributors of the item. — Yes
5. Is there any other item with similar/ equivalent specification available in the market to meet the job requirement envisaged. If the answer is yes, why the same can't be procured. Demanding officer should bring out comparative functional advantages/cost effectiveness of the recommended item from these offered by other. — No
6. What were the efforts made to locate alternative source of supply or use other substitutes. — Proprietary Item
7. Why open/limited tender can't be resorted to, for locating alter native source. — Proprietary Item
8. Are the proprietory items certifiving that the rates are reasonable or not. — Yes
9. Any other justification for procuring item from single source. — No

Ishwar Bhatt

Signature of Indentor
(Demanding Officer)

COUNTERSIGNE
(Head of the Department)

I certify that the item at Sr. No. 1 above is required to be procured on single tender basis as the source of supply is definitely known/the specified brand proposed was advertages in meeting our functional requirements and limited tender system could be dispensed with as they would serve no useful purpose in this particular case.

(Strike out whichever is not applicable)

Foreign Company Registration Number F02859
Branch office, 315, AKD Tower, Sector – 14
Gurgaon – 122001, Haryana
www.proquest.com

Date: 27 December, 2016

To Whom It May Concern

ProQuest Proprietary Certificate

By way of this letter, we would like to confirm that the Digital Archiving and Archiving Program (DAAP) and ProQuest Dissertation and Theses are proprietary products and services of ProQuest. Furthermore, the process of ingestion of digitized doctoral theses and dissertations into the ProQuest Dissertations and Theses (PQDT) platform is a proprietary service. A web-based channel shall be created for the users of AIIMS for seamless access of the digitized doctoral theses/dissertations of the institute that are hosted on ProQuest Dissertation and Theses platform.

Yours Sincerely,

On behalf of ProQuest Information and
learning Ltd

Kind regards,

Anindita Sengupta
Digitization and Archiving Specialist – India
E-mail: Anindita.Sengupta@proquest.com; Mob: +91-98456-17302

Digital Archiving and Access Program

Technical and Commercial Proposal to Digitize and Archive your Theses and Dissertations

December, 2016

ProQuest®

Start here.

INTRODUCTION

ProQuest is a global leader in the archiving and preservation of dissertations and master's theses in all formats—from 1938, when we began as UMI Dissertation Publishing. Since that time, we have digitized over 2 million graduate works from graduate schools around the world partnering with several universities as a not for profit service provider. We have over 700 active university publishing partners, and publish more than 70,000 doctoral theses and masters dissertations annually. In addition to publishing, we provide access to PhD and Masters dissertations that are searched over 200 million times each year at thousands of libraries around the world.

Because of our deep expertise and outstanding track record in digital projects, we have been designated as the **National Repository for the Library of Congress**; and the National Library of Canada has named us exclusive provider of theses and dissertations from all major Canadian institutions. ProQuest Digital Dissertations, a comprehensive digital archive of every dissertation submitted to UMI for publication from January 1997, was developed in concert with UMI's dissertation microfilming and publishing venture. Through ProQuest Digital Dissertations, UMI is now registering and depositing copies of dissertations in digital form, using CORDS (Copyright Office Electronic Registration, Recordation, and Deposit System) developed by the U.S. Copyright Office in the Library of Congress. For financial assistance in this project, ProQuest had requested the U.S. Copyright Office to provide support with all required software and technical assistance. The Library continues to acquire a microform version of all dissertations as the "best edition" for archival purposes.

The All India Institute of Medical Sciences (AIIMS) has around 5000 number of PhD theses and dissertations that have not been previously digitized or archived and are held at the institute in paper format. As a part of this service, the digital files created during this process will be converted to searchable text and made available to the Institute, microfilmed and hosted on ProQuest's Dissertation and Theses platform.

THE BEST OF RICH INDEXING AND METADATA, PRESERVATION, AND DISSEMINATION

Our comprehensive Digital Archiving and Access Program offers a full range of services geared to saving you valuable time, optimizing your library space, and maximize the global reach and impact of your graduate works.

- **Technology:** ProQuest has leveraged new imaging technologies and workflows to be able to re-launch the Dissertation Archiving and Access Program (DAAP) while providing significant cost saving for universities.

- **Discovery:** ProQuest aids in discovery by including the graduate work in ProQuest Dissertations & Theses (PQDT) database, which had over 200 million searches last year, as well as providing citations to all major subject indexes (such as SciFinder, MathSciNet, ERIC, PsycINFO, MLA, etc.). ProQuest creates state-of-the-art indexing for each graduate work, significantly aiding discovery.

- **Preservation:** ProQuest creates both analog (microfilm) and digital preservation for every graduate work.

- **National Collection:** Every work sent to ProQuest is entered into the Library of Congress-designated National collection, hosted by ProQuest.

- **Expertise as a Not-for Profit Service provider:** With a long tradition in publishing as a not for profit provider, and high-quality digital imaging, ProQuest has completed more than 150 dissertation and theses preservation projects over the last 20 years. And, each DAAP project is customized for the needs of the institute.

- **Speed:** ProQuest's high-capacity digitization facility ensures that even large projects are completed quickly.

- **Metrics:** ProQuest is currently developing a new dissertation dashboard that facilitates the viewing of institutional dissertation and theses output over time and by subject. It will also provide data that highlights which institutions — and countries — are viewing and downloading each university's dissertations and providing comparative reports for benchmarking purposes. By making an increasing number of graduate works available through ProQuest, universities will be better able to quantify and demonstrate the impact of graduate programs as compared to peers.

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INVESTMENT

Preservation & Publishing of Theses & Dissertations in Paper Format Number of theses: 5000; average pages: 125 per thesis	
a. Paper scanning of theses & dissertations & metadata extraction	**Rs 1.95 per page**
b. Unbinding/rebinding of theses for scanning work	
c. OCR conversion for searchable text	
d. Metadata in XML format as per Dublin Core standards and international standards	
e. Final deliverables on DVD for backup	
f. Microfilming (upon approval) and hosting on ProQuest Dissertations and Theses via IP access	

Note: Paper titles will be scanned bound or unbound and may contain material requiring special handling. Special handling describes the nature or condition of the original material. Common examples of special handling include conversion of materials that contain water damaged pages, brittle paper, loose or dilapidated binds, onion skin or erasable bond paper, ink bleed-through, faint or poor print, loose material, narrow margins, oversize material, color and grayscale scanning, etc.

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NOTES ON INVESTMENT

1) Prices quoted are exclusive of all taxes. Price valid till September 2016.

2) The institute will have to sign an agreement with ProQuest for digitization and publishing of ETDs with ProQuest. The work can begin only after this agreement has been signed.

3) Prices have been quoted based on the estimated number of PhD and master's theses in paper format at 5000 with average pages 125 per thesis and irrespective of originals/duplicates.

4) Scanning will be done onsite. Minimum 2 weeks' time will be required for deploying the team onsite at the institute to begin the project. For production purposes, the Institute is requested to provide infrastructure to ProQuest for production purposes. E.g. 1 AC room with tables and electrical points, uninterrupted power supply/power back up facility, 2-3 desktop computer with internet facility, etc.

5) Microfilming of theses can be done only once the digitized theses are published on PQDT (with or without embargo). Also, microfilms will be maintained in the ProQuest facility in Michigan, USA. Should the institute require any microfilm in future, ProQuest will charge for the delivery and shipment.

6) ProQuest will raise 50% of the payment via first invoice once the entire work is submitted in DVD/Hard disk to the institute. Balance 50% will be raised as second invoice upon publishing of the ETDs on the ProQuest theses platform with IP access to the institute. Detailed report of the number of theses and pages scanned will be submitted with the invoices.

PRIOR EXPERIENCE IN DIGITIZATION AND PRESERVATION OF THESES AND DISSERTATIONS

ProQuest over the last 7 decades, has preserved more than 300,000 dissertations and theses for 162 universities across the U.S. and Canada. In India, we began our digitization operations in mid-2014. We received our first Shodhganga project in the 3rd month of operation from Gauhati University. Since then, we have secured orders from **16 central and state universities/institutes** and **completed 8 projects** successfully with all deliverables including uploading of Digitized theses on Shodhganga.

Our current digitization projects (Shodhganga) are ongoing in state of Karnataka, Tamil Nadu, West Bengal, and Andhra Pradesh.

DELIVERABLES

Below is detailed information related to the proposed project for retrospective publishing of dissertations and master's theses in paper format.

The collection of dissertations and master's theses will be converted to microform and digital formats for preservation and access and added to the Nation's collection housed in our vaults. ProQuest proposes to undertake this process, and provide:

- Digital conversion with OCR to generate searchable PDFs
- Microfilming (subject to publishing approval)
  - Material Preparation
  - Target Preparation
  - Microfilming and Inspection
- Publishing in PQDT Database & localized access in library (optional)
- Metadata – XML format in Dublin Core format
- Back up of all digitized content on DVD or external hard disk

Microfilming Activities

Material Preparation

- All material preparation would be primarily performed by the University including complete and accurate collation and securing of loose items and torn pages in the theses prior to sending to ProQuest. ProQuest will also support the university in this activity.
- All paper and other materials including photographs, fold out charts, graphs etc. will be digitized and microfilmed.
- Upon commencing of the work, materials are carefully unpacked by our dissertation specialists and, with the Library's consent; any bound theses will be unbound.
- Each title is immediately keyed in to our tracking system and assigned a control number.
- This number is used to identify and track the status of that title throughout its stay at ProQuest.

- When scanning is complete, materials are returned to the prep room and shelved according to control number until the microform is inspected.

Target Preparation

- All target preparation would be performed by ProQuest. There would be no charge for standard targets.

Scanning and Imaging

- All pages are scanned bitonal with a resolution setting of 400 DPI optical.
- All scanned pages are converted to TIFF format with CCITT Group 4 compression.
- Images are inspected page by page for accuracy, skewing and quality.
- TIFF images are sent to the e-beam camera for microfilming.
- IGI's patent electron beam technology uses a 4.0 micron diameter, high energy beam that can record imagery and graphics with more than 6000 DPI. It can also provide grayscale for continuous tone photographic quality images or halftone for printing applications.
- All terms, conditions, film, inspection and ANSI standard listed below under the Microform Conversion and Inspection specifications also apply to e-beam camera production.

Microform Conversion and Inspection

- Up to three generation silver halide microform would be produced from the original format. Successive generations from the original include a master negative (first generation) and one or more positive distribution copies (third generation). Third generation copies are provided to the Library of Congress and usually to the Institutional Library if ordered.
- All filming methods and materials would conform to the specific appropriate requirements set forth in the RLG, ANSI, and AIIM guidelines for producing preservation quality microfilm.
- ProQuest would provide 100% technical and bibliographic inspection of the master negative film.

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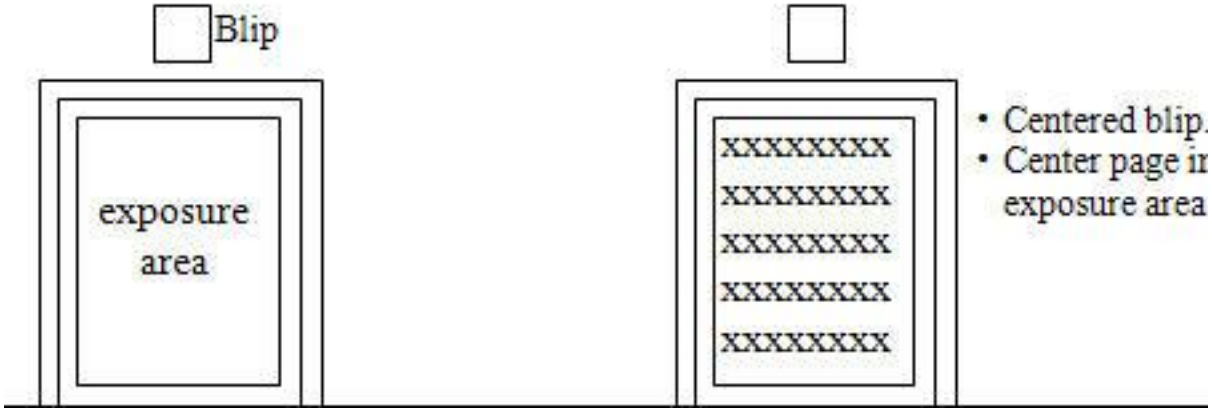
- Each first generation master negative will be carefully reviewed for visible defects and missing pages.

- Second generation film is reviewed over a light box and on film readers with non-damaging glass plates.

- All microfilm will contain a “blip” that will be placed on the film. (see example below). This blip facilitates both the creation of film/fiche copies from the master negative as well as scanning of the microfilm.



- The size of the blip measures 50.8 wide X 101.6 millimeters high. Actual blip size 4.83 X 2.42 when reduced 21X and 1.8 millimeter above page on film reduced 21X.

- The following specifications will be followed when filming the Library's materials:

  a) All film will be 35mm, non-perforated, silver-gelatin type, on polyester base, as described in ANSI/NAPM IT9.1-1996. Film will be at least 0.13mm (4 mil) thick. First-generation film will be Kodak 2462 microfilm. Second-generation direct duplicating film will be Kodak 2468 or equivalent.

  b) All distribution copies will be either 105mm microfiche or 35mm roll film.

  c) First generation film is produced negative polarity using Kodak 2462.

  d) Processed film will be delivered wound with START target at the outer end, in accordance with ANSI/AIIM MS23-1998, on storage reels that are chemically inert, sturdy, and of dimensions conforming to ANSI IT9.2-1998 and meet the Photographic Activities test for archival permanence.

e) Once per day a sample of film will be tested for residual thiosulfate using the methylene blue test as described in ANSI/NAPM IT9.1-1996.

f) Each roll of first-generation film will be inspected frame by frame by ProQuest for visible defects and missing pages as described in ANSI/AIIM MS23-1998. Film will be inspected on a microfilm reader. Second-generation film will be inspected on a light box to ensure legibility and freedom from defects. Every roll of first-generation film will have density readings taken. Average density readings will be established for each reel. It is understood that individual adjustments may be necessary for documents that display variations in paper color and/or ink intensity. Density readings will generally fall between 0.9 and 1.30, however optimal density will be determined according to ANSI/AIIM MS23-1998, as "that which will make it most legible for reading, scanning, duplicating, or printing to paper."

g) All edges of the document will be visible in the image. Reduction ratio changes within the same title will be avoided if possible, but when they must be made, they will be identified by a target in consecutive pagination, whether actually numbered or not.

h) Framing will be consistent and regular.

i) No splices will appear on microfilm.

j) All distribution copies will be either 105mm microfiche or 35mm roll film.

k) Distribution microfiche will be enclosed in and lignin-free envelope.

l) Distribution microfilm will be stored on reels enclosed in boxes made of acid- and lignin-free paperboard that meets the material requirements of ANSI IT9.2-1998. They will be no larger than 4" x 1-5/8" x 3-15/16".

Negative Storage

- Storage of master negative in climate controlled vault located remotely from all other vaults.

    a) The master negative vault is an 8,300 square feet Iron Mountain facility located in Boyer, Pennsylvania. This secure, underground vault contains the original negatives for over 25,000 different periodical titles and in most cases is the complete collection of each title. The archival vault also includes over 1,500,000 dissertations negatives. Over 5.5 billion pages of information are stored within this vault making it the largest commercial library in the world.

    b) The microfilm in this vault is solely for backup and archival purposes. Replication is generated from the print masters (see below).

    c) A second vault located at our Ypsilanti, Michigan manufacturing facility, contains all second generation print masters.

    d) The 6,300 square feet vault has a separate heating and cooling systems to guarantee constant temperatures of 70 degrees. It also includes dehumidifiers that keep humidity between 20% - 30%, adhering to the ANSI/PIMA standard.

- Storage of print master negative (i.e. second generation) in climate controlled vault (separate vault from original camera negative).

    a) Processed 105mm microfiche will be stored in approved microfiche cabinet with each fiche card enclosed in lignin-free envelope.

    b) Processed 35mm microfilm will be stored in approved film canisters.

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Film Scanning

- Microfilmed Dissertations are scanned on upgraded NextScan Eclipse 300 scanners with Lumintec lighting and NextScan Fusion software version 2.5.0. The scanners include enhancement software to optimize image quality for each title.

- Scanner operators place the film on the scanners and adjust the image sizing parameters determined by the operators' measurements.

- Operators key in the reel and catalog number of each work into the proprietary database application that runs on the operator's desktop. The database program accepts only keyed numbers that match an existing record in the database. This scheme provides a method of fault tolerant redundancy to prevent data entry of incorrect information.

- During the scanning stage, the operator's primary objective is to monitor the scan and check for any poor quality images or other inconsistencies such as splices or missing pages.

- The primary tool the operator utilizes during the scan is the "image detect" window. Data is output on a graph representation of the microfilm image densities. (The term density is used here in reference to the amount of pixels the scanner senses.) When scanning microfilm with a positive format, the peaks of the graph represent low-density values, and the valleys represent high-density areas. There are spikes in the graph when the scan field crosses a page with an illustration or other dense image. The scanner operator must manually set an average line between the peaks and valleys of the graph while avoiding the data spikes to detect an image.

- Operators must visually inspect the microfilm to determine the optimum placement for the scan field to allow for accurate image detection.

- Quality control/content development group inspects all scanned images. Depending on the film quality, the operator may perform image cropping on as needed basis.

- Images are viewed using a custom program developed by ProQuest. The operators approve or reject images based on quality control specifications developed by ProQuest, with input from focus group research findings.

- During scanning, editing and validating images we use IrfanView (licensed software), RTV (Panasonic Scanner software), DVMThread (in house developed software in MS VC++ (Visual Studio)), TiffChecker (in house developed software using open source PERL, mySQL on Linux).

Scanning of Oversize and Color Pages

- For paper titles with oversize pages, or pages printed in color, the option of direct scanning is available.
- Pages of interest will be filmed for archival purposes along with the rest of the title.
- Then the pages will be directly scanned using a flatbed scanner designed to capture large images (up to 6 feet wide).
- The digital images created using the scanner will be merged with the images created during the scan of the film. The PDF of the title will include color and/or oversize pages in the same sequence as the original publication.
- Additional costs apply for scanning oversize and color pages.

Publishing in Databases

For Bibliographic Data

- Bibliographic Control (includes entering title, author, subject, school, degree, degree date, etc. into ProQuest databases).
- Publication of bibliographic data in PQDT (ProQuest Dissertations & Theses).
- Publication in PQDT (electronic access).
- Electronic, Softbound/Hardbound and Microfilm/Microfiche edition available to researchers worldwide.

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MARC Records

- A MARC 21-type record will be created for each of the titles scanned or digitized.
- Fields included in the MARC record include: Author, Title, School, Degree Date, etc.
- The MARC record can be sent via FTP to the institute for loading in an OPAC, free of charge.
- An 856 field can be added to this record upon request.

Image Storage and Data Sampling/Migration

- Images are stored on a Clarion FC4700 (EMC) which stores 3.5 TB of data.
- Redundancy is provided through back up magnetic tape.
- Adobe PDF format will be the primary archival storage format. All documents will identify file name, file size and creation date. These data will be used for accession to PQDT archival storage.
- Sampling Procedures are as follows: An automated routine will perform a regularly scheduled sampling activity. The routine will use the creation date or archiving date of active files as a key for sampling. Depending on the actual number of files with the same key date, the routine will sample every 2nd, 3rd, 4th or 5th file. Initially, the sample will be 20% of the files with the same key date. As digital submissions increase, that percentage may be reduced to maintain a manageable sample population.
- Sampling activity will entail scanning files created a year prior to the key date. The same process then takes place for files with a key date two years prior to the start date, etc.
- When discrepancies are discovered, a survey of all files with that key date is triggered. A survey of files in close physical proximity to corrupted files also will take place. If additional discrepancies are uncovered, all files with that key date will be recovered from the reserve storage media and used to replace current files.
- Migration and Data Refreshing Policy: All archival equipment and software will have a life of 3-5 years, after which it will be assumed that both software and equipment are obsolete. The media will be refreshed and data migrated as the technology changes on the same 3-5 year cycle.

Online Hosting on ProQuest

- If agreed upon by the authorities, all titles would be hosted online on ProQuest's Dissertations & Theses platform (PQDT). Consequently, an offline instance of the platform with the digitized content of the institute could be made available to your institution.

- No additional fee (annual or otherwise) will be required from your institution for online access to these titles (further details are contained in the license agreement).

We'd like to work with you to digitally archive, preserve, and feature your school's dissertations and master's theses alongside the works of other premier institutions worldwide.

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