

NOTICE INVITING TENDER

Supply and installation of thermal and UV based nano-imprinter



Instrumentation and Applied Physics,
Indian Institute of Science, Bangalore

APRIL 8, 2021

LANSPE, IAP
Bangalore 560012

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This is an invited Global tender

Section 1 - Bid Schedule

1	Tender No	
2	Tender Date	08.04.2021
3	Item Description	Supply and installation of thermal and UV based nanoimprinter
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Chairperson Office Ground Floor Instrumentation and Applied Physics Indian Institute of Science, Bangalore 560012
6	Last Date & Time for submission of tender	30 .04.2021
7	For further clarification	Dr. Tapajyoti Das Gupta Room No: 126 Instrumentation and Applied Phycs Indian Institute of Science, Bangalore 560012 Email: tapajyoti@iisc.ac.in Phone: +91-80-2293-2349

Section 2 – Eligibility Criteria

Prequalification criteria:

1. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
2. MSME can seek exemption to some qualification criteria. IISc follows GFR2017 for such details
3. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
4. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.
5. **The Bidder should have supplied similar equipment in Central Universities preferably in centrally Funded Technical Institutes (IITs, IISc, IISER, NIT) . Please provide the details and contact informations.**

Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for conformance to technical specifications.

The technical proposal should contain a technical compliance table with 5 columns.

- i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iii. The third column should describe your compliance with a “Yes” or “No” only. Ensure that the entries in column 2 and column 3 are consistent.
 - iv. The fourth column should state the reasons/explanations/context for deviations, if any.
 - v. The fifth column can contain additional remarks from the OEM. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details.
- b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, **as per the format of quotation provided in tender**, and other commercial terms and conditions.

3. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
4. The SEALED COVER superscripting tender number / due date & should reach Chairperson Office, Instrumentation and Applied Physics, Indian Institute of Science, Bangalore – 560012, India on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted and opened on the next working day. If the quotation cover is not sealed, it will be rejected.
5. All queries are to be addressed to the person identified in “Section 1 – Bid Schedule” of the tender notice.
6. The items are required for research purposes, and IISc is a DSIR registered institution, hence eligible for GST exemption (i.e. GST @ 5%). While submitting the price quote, this point must be taken care. For getting GST exemption certificate, successful bidders must submit, a formal request together with Invoice copy and Purchase order copy.

7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid is liable to be rejected.
8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the Offer:

The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of Offer:

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre- qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).

- c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.
7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items tendered for Basic equipment along with accessories selected for installation, operation, preprocessing and post processing, optional items, recommended spares, warranty, annual maintenance contract.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 3 years (year wise breakup value should be shown in the commercial bid) including free supply of consumables, spare parts and data analysis software from the date of functional installation. If the instrument is found to be defective, it has to be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Annual Maintenance Contract:

An annual maintenance contract for a period of atleast 2 years post warranty should be provided on completion of warranty period. The AMC costs will not be considered towards classifying the domestic nature (class 1 or class 2) of the vendor (see eligibility criteria in section 2). In the bid AMC charge should also be provided.

H) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

I) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed and made functional **within 90 days** from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed.

The bidder should also arrange for technical training to the local facility technologists and users.

J) Payment Terms:

The payment will be through a Letter of Credit and milestone of the payment will be determined after the mutual discussions with the successful bidder. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank guarantee is provided.

K) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

L) Disputes and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

M) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
3. The bidder may visit the installation site before submission of tender, with prior intimation.
4. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.

Section 4 – Technical Specifications

A. Technical Specifications of the thermal and UV based nanoimprinter

A desktop or floor-mounted system capable of operating with 220 volts line power and performing pressure-driven thermal nanoimprint lithography, UV nanoimprint lithography, and hot embossing under vacuum or ambient pressure. Manual Loading System, and necessary technology License for Intermediate Polymer stamp technology and Simultaneous use of Thermal and UV process technology, Computer Controlled User Interface (for control and analysis of the imprint process, log files and equipment diagnostics), The system should have capability to apply pressure to stamp and substrate using compressed gas and a membrane

The system should meet or exceed the following minimum specifications. A compliance sheet with respect to our specification and your quoted system should be included while submitting the tender.

Please include relevant datasheets/images/plots to support your various compliance claims.

Specifications of substrate and stamps

S.No	Specification	Essential/Optional
1.	Handling up to a 3-inch diameter full wafer or larger as well as smaller substrates of irregular sizes and shapes (please provide relevant images)	Essential
2.	Support polymethylmethacrylate (PMMA), polycarbonate (PC), and UV polymerizable resists like ORMOCOMP and ORMOSTAMP, SiO ₂ sol-gel, and hydrogel substrates	Essential
3.	Support silicon, quartz, nickel, polymethylmethacrylate (PMMA) and polydimethylsiloxane (PDMS) as stamp materials	Essential

Thermal and UV operation

S.No	Specification	Essential/Optional
1.	The system should support operating temperature ranging from the ambient to 200 °C with an option of 240°C with +/- 2 °C accuracy over the full contact area.	Essential
2.	User should be able to monitor the temperature of the stack in real time. Temperature ramp should be tunable or programmable. range should be from 0.5 degrees -1 °C/Sec . Heater shall be composed of a high thermal conductivity material (>115 W/mK), having a mass exceeding 0,5kgs and have both chamber and chuck vacuum integrated into it (necessary specs should be attached if any).	Essential
3.	The system should support operation in vacuum.	Essential
4.	The system should support imprint pressure (minimum) range of 0 to 10 bar over ambient should be supported. If not the system should be offered for low Pressure ~1bar separately)	Essential

	Imprint pressure (Maximum): 70 bar (higher the better)	
5.	The system should support a vacuum of 1.5 mbar or less.	Essential
6.	The system should support a peak UV nanolithography wavelength of 365±10 nm.	Essential
7.	The average UV intensity should be at least 50 mW/cm² preferably 80 mW/cm² or higher at 365 nm. UV Module type: LED	Essential
8.	The system should support fabrication of a wide range of feature sizes from 50 nm or preferably lower to 100 micron or higher over the full wafer range. Technical sheets showing the validity should be attached.	Essential
9.	Process Technology for master stamp replication: Technology License that enables the user to use Intermediate Polymer Stamp process technology for R&D purposes. This process technology allows the master stamp to be replicated into a proprietary soft and flexible polymer material, which is then used as a stamp when imprinting on the target substrate.	
10.	Process Technology for combined thermal and UV process: Technology License that enables the user to use Simultaneous Thermal and UV process technology for R&D purposes. This process technology allows the complete imprint sequence to be performed at a constant temperature, enabling a uniform and high accuracy pattern transfer.	
11.	The process control between loading and unloading of the sample should be fully automated.	Essential
12.	The system should provide flexibility in operation to include a minimum of 20 process steps into a program.	Essential
13.	All necessary tubing for connecting the system should in included.	Essential

B. Spares and accessories

- At least one hard stamp and one soft test stamp with anti-sticking coating to demonstrate (i) UV nanoimprint lithography and (ii) thermal nanoimprint lithography. The stamp to demonstrate nanoimprint lithography must have a minimum feature size of 50 nm or less.
- At least 100 ml (1 bottle resist) of a UV nanoimprint photoresist and 100 ml of the corresponding developer.
- At least 100 ml of a UV nanoimprint photoresist and 100 ml of the corresponding developer.
- At least 100 ml volume of an adhesion promoter for the photoresist.

Computer and software

- A workstation (Dell or Lenovo or HP or equivalent) compatible with the nanolithography equipment and loaded with genuine 64-Bit operating system and pre-installed software for operating the equipment. Please quote for a perpetual license or extended support for the software.
- At least one standard recipe for each of the following should be pre-installed for initial training and familiarization of the system: (i) thermal nanoimprinting of a Polycarbonate (PC) using PDMS stamp, (ii) thermal nanoimprint on a resist, (iii) UV nanoimprint with a photoresist for use with hard stamps, (iv) UV nanoimprint with a photoresist for use with PDMS stamps.

- Front panel displaying equipment and process status along with appropriate software to be supplied.
- The software must allow varying levels of instrument access. A simplified basic access for a user to a full access to an engineer.
- Complete logs of all the process and system parameters to be available and stored for future trouble shooting
- Display tool and process parameters
- Provision to alert the user in case of emergencies may be included
- Software need to be supported for the lifetime of the tool.

Warranty (to be included in the quote)

- The system should carry 3 warranty and 2 years of comprehensive maintenance contract (CMC) after the first year of warranty for all spare parts and service– this is extremely important for us.
- Warranty will start from the day of installation of the equipment.
- Support for spare parts for xx years after sale and installation should be quoted.

C. Training and demonstration

- Complete installation including demonstration of individual and combined UV and thermal nanoimprint processes with a feature size of at least 50 nm using the test stamp
- Training for users by the company personnel present 'on site' immediately after the installation.
- All pre-installation requirements to have the system installed in ideal room conditions should be included in the quote.

D. Others

- The system must submit references from atleast 3 previous installations
- The names and contact addresses of the referees must be submitted with the proposal, so the purchase committee can contact them independently.
- The system should require minimal maintenance.
- Mention the recommended preventive maintenance schedule for the system. Any accessories needed for periodic preventive maintenance for 3 years, should be mentioned in separately the itemized quote.
- Can the preventive maintenance be done by a trained on-site engineer or requires a specialist from the OEM? If the latter, please provide cost of a 3 year AMC with required kit/consumables.
- The system should be supported by a trained local representative and should have a 48hour window of response. Details of the local representative (engineer) should be provided.

Section 5- Technical Bid

The technical bid should furnish all requirements of the tender along with all annexure in this section and submitted to

The Chairperson,
Attn: Dr. Tapajyoti Das Gupta
Instrumentation and Applied Physics,
Indian Institute of Science
Bangalore – 560012, India

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No	Items	Details
1.	Name of the Bidder	
2.	Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)	
3.	Registration No/ Trade License, (attach attested copy)	
4.	Registered Office Address	
5.	Address for communication	
6.	Contact person- Name and Designation	
7.	Telephone No	
8.	Email ID	
9.	Website	
10.	PAN No. (attach copy)	
11.	GST No. (attach copy)	

Signature of the Bidder

Name
Designation, Seal

Date:

Annexure-2:

Declaration regarding experience

To,
The Chairperson,
Instrumentation and Applied Physics,
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXXX

Dated: XXXXX

Supply and installation of Thermal and UV based nanoimprinter at Laboratory of Advanced Nanostructures for Photonics and Electronics (LANSPE) , IAP IISC Bangalore

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ---- years of experience in supplying and installing Confocal systems.

(Signature of the Bidder)

Printed Name

Designation, Seal Date:

Annexure-3:

Declaration regarding track record

To,
The Chairperson,
Instrumentation and Applied Physics,
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXXXX
Dated: XXXXX

Supply and installation of Thermal and UV based nanoimprinter at Laboratory of Advanced Nanostructures for Photonics and Electronics (LANSPE) , IAP IISC Bangalore

Sir,
I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following

Sl.No	Country in which the company is Debarred /blacklisted / case is Pending	Blacklisted / debarred by Government / Semi Government/Organizations /Institutions	Reason	Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully
(Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
The Chairperson,
Instrumentation and Applied Physics,
Indian Institute of Science
Bangalore – 560012, India

Ref: Tender No: XXXXXX
Dated: XXXX

Supply and installation of Thermal and UV based nanoimprinter at Laboratory of Advanced Nanostructures for Photonics and Electronics (LANSPE) , IAP IISC Bangalore

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)
Name
Designation, Seal

Date:

Annexure – 5:

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
1.	Essential items noted in the technical specification				
1.a	... (details of essential items)				
1.b	...				
2.	Optional items noted in the technical specification				
2.a	... (details of essential items)				
2.b	...				
3.	Accessories for operation and installation				
4.	All Consumables, spares and software to be supplied locally				
5.	Warranty (3 years)				
6.	AMC 2 years beyond warranty				
7.	Cost of Insurance and Airfreight				
8.	CIP/CIF IISc, Bengaluru				

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total

Addressed to

The Chairperson,
 Attn: Dr. Tapajyoti Das Gupta
 Instrumentation and Applied Physics,
 Indian Institute of Science
 Bangalore – 560012, India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

1. Sealed Envelope “A”: Technical Bid

- 1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:**
 - a. Annexure 1: Bidders details**
 - b. Annexure 2: Declaration regarding experience**
 - c. Annexure 3: Declaration regarding clean track record**
 - d. Annexure 4: Declaration for acceptance of terms and conditions**
 - e. Annexure 5: Details of items quoted**
- 2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.**

2. Sealed Envelop “B”: Commercial Bid

Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.