1	Section 1	Bid Schedule				
2	Section 2	Eligibility Criteria	As specified by IISc			
3	Section 3	Terms and Conditions	As specified by IISc			
4	Section 4	Specifications	Technical specifications			
5	Section 5	Technical Bid	Annexure 1: Bidder details			
			Annexure 2: Declaration regarding experince of			
			bidder			
			Annexure 3: Declaration regarding clean track			
			record of the bidder			
			Annexure 4: Declaration of acceptance of tender			
			Annexure 5: Terms and conditions. Details of item			
			quoted			
6	Section 6	Commercial bid	Quotation with Price, Technical specifications of the			
			Equipment			

# Section 1 - Bid Schedule

1	Tender No			
2	Tender Date	11 <sup>th</sup> February 2020		
3	Item Description	Custom modification of a physical vapor despoition system with substrate manipulators		
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)		
5	Place of tender submission	Department Office Ground floor Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012		
6	Last Date & Time for submission of tender	24 <sup>th</sup> February 2020, 4;30 PM		
7	Date and time of opening of technical bids	24 <sup>th</sup> February 2020, 4:30 PM		
8	For further clarification	Prof. Ambarish Ghosh Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012 Email: <u>ambarish@iisc.ac.in</u> (email is preferred mode of communication) Phone: +91 80 2293 2442		

# Section 2 – Eligiility Criteria

Prequalification criteria:

- 1. The Bidder's firm should have existence for a minimum of 3 years. (Enclose Company Registration Certificate)
- 2. The Bidder should have qualified technical service personnel for the instrument(s) based in India.
- 3. If the Bidder is a local distributor/dealer/Agent, it is mandatory to attach authorization certificate along with the technical bid from the original equipment manufacturer.
- 4. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
- 5. The Bidder must not be blacklisted/banned/suspended or have a record of any servicerelated dispute with any organization in India or elsewhere. A declaration to this effect has to be given as per Annexure 3.

# 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 envelops (two bid system).
  - a. Technical Bid (Part-A) Technical bid consisting of all technical details and check list for conformance to technical specifications. The proposal should contain a compliance table with 4 columns in addition to the ones in the technical requirements table that has been included with this RFQ below. The compliance table should include all the items in the same order and format. The first column should describe your compliance in a "Yes" or "No" response. If "No" the second column should state the extent of deviation. The "third" column should state the reasons for the deviation if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below. (suppliers who include any indication of prices in the technical bid will be automatically disqualified).
  - 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 sparate 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 Department Office, Centre for Nano Science and Engineering, 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. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
- 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) Mode of Shipment:

In case of foreign bidders, the consignment must be airlifted, insured and transported to the Bangalore International Airport (CIP/CIF). Necessary custom clearance will be done by IISc, Bangalore, from Bangalore International Airport.

### G) Customs clearance:

The IISc, Bangalore will furnish the necessary papers for the import of items into India, necessary custom duty exemption certificate and other supporting documents to facilitate the import of the items will be provided.

### H) Warranty:

The complete system is to be under warranty period of minimum 5 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.

### I) Annual Maintenance Contract:

An annual maintenance contract for a period of 2 years post warranty should be provided on completion of warranty period.

## J) 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.

# K) Delivery and Installation:

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.

## M) 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.

## N) 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.

## O) 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.

## P) 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. All imported equipment should be quoted in the currency of the country of origin, and all locally sourced items should be quoted in Indian Rupees.
- 5. 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

# Technical Specifications of Custom modification of a physical vapor deposition system with substrate manipulators

Cust	Custom modification of a physical vapor deposition system with substrate manipulators				
Sr no	Description	Comments			
1	Chamber with ports for pump, 1 sputter source, 1 electron beam multipocket source, two thermal sources, sample loading, sample holders (two GLAD manipulators), water connection port & feedthrough for e-beam, ports for electrodes for thermal, 2 ports for quartz crystals, ports for viewing, gas entry, gauges etc and liners inside the chamber that can be replaced. The user will provide the pumping station (same or equivalewnt to Turbo pump Hipace 700 (CF-150) with rotary ACP 280, DCU 400 and gauges with 1 pirani and 1 cold cathode gauge), one exisiting Telemark TT-10 power supply and multipocket electron beam source (E-beam source: Model is 244-05EB Telemark with feedthrough). The chamber will have door in the front and also loadlock capabilities. Approximate chamber dimensions are 54 cm by 31 cm by 47 cm. Water chiller (1 TR or above) will be provided by user.	Essential			
2	One sputter source for 2" targets manual shutter	Essential			
3A	DC supply (foreign made) for the sputtering (0.5 kW minimum)	Optional			
3B	DC supply (Indian make) for the sputtering (0.5 kW minimum)	Optional			
4	300W rf supply with automatching network capabilities	Essential			
5	Digital Mass flow controller for Argon	Essential			
6A	Glancing Angle Deposition Manipulator with liquid nitrogen cooling and heater, with maximum length from chamber wall to sample space ~30 cm, that can retracted by around 17 cm. Approximate sample size ~ 2 inch Sample Rotation : 5 rpm maximum speed, Substrate tilt : +/- 90 <sup>o</sup> motorized tilting and sample rotation using stepper motors (without motor controller). <i>Proven experience in cryogen cooled substrate manipualtor</i> <i>necessary.</i>	Essential			
6B	Motor controller with capability to communicate using labview for the item 6A	Optional			
6C	Glancing Angle Deposition Manipulator with liquid nitrogen cooling and heater, with maximum length from chamber wall to sample space ~20 cm, that can retracted by around 9.5 cm. Approximate sample size ~ 2 inch Sample Rotation : 5 rpm maximum speed, Substrate tilt : +/- 90 <sup>o</sup> motorized tilting and sample rotation using stepper motors (without motor controller). <i>Proven experience in cryogen cooled substrate manipualtor</i> <i>necessary.</i>	Essential			
6D	Motor controller with capability to communicate using labview for the item 6C	Optional			

7	Electrode assembly for 2 thermal sources with two power supplies (supplied		
	by user), each controlling one thermal source		
8	Shutter and shield for electrode assembly (common for both)	Essential	
9	Thickness monitor (for QCM) with STM-2 electronics and capability to connect	Essential	
	to laptop for display / data transfer of thickness		
10	Laptop/display for QCM	Optional	
11	Water connection flange, indexing feedthrough & shutter	Essential	
12	Manual Gate valve (size CF150)	Essential	
13	Backing-roughing valve and relevant accessories for roughing	Essential	
14	Custom built rack to mount all power supplies, including the user supplied electron beam HV supply, thermal evaporator power supplies (user supplied), vendor supplied sputtering supplies, electron beam source controller (user supplied). Please ensure minimal floor space. The dimensions and names of the various user specified parts are as follows: Telemark tt-10 power supply for electron beam source with dimensions 64 cm by 81 cm by 112 cm, power supply for thermal source #1 with dimensions 52 cm by 50 cm by 45 cm, power supply for thermal source #2 with dimensions 49 cm by 22 cm by 30 cm.	Essential	
15	Loadlock chamber: magnetic transfer arm, manual gate valve, isolation valve for pump, pirani gauge, hose pipe and fitting to connect to user provided rotary pump	Essential	
16	shipping, installation and integration	Essential	
	More information about the exisiting systems can be provided if requested through email		

# Training and demonstration

Training on usage of the machine (hardware and software) must be demonstrated by the successful bidder at bidder's cost to the end users at IISc, Bangalore.

# Section 5- Technical Bid

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

Prof. Ambarish Ghosh Centre for Nano Science and Engineering 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

SI. 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, Centre for Nanoscience and Engineering, Indian Institute of Science, Bangalore – 560012, India

Ref: Tender No: XXXXXXXXX Dated: XXXXX

Subject: Custom modification of a physical vapor deposition system with substrate manipulators

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, Centre for Nano Science and Engineering Indian Institute of Science, Bangalore – 560012, India

Ref: Tender No: XXXXXXX Dated: XXXXX

#### Custom modification of a physical vapor deposition system with substrate manipulators

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	Blacklisted / debarred by	Reason	Since when and
	company is Debarred	Government / Semi		for how long
	/blacklisted / case is	Government/Organizations		
	Pending	/Institutions		

(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, Centre for Nano Science and Engineering Indian Institute of Science, Bangalore – 560012, India

Ref: Tender No: XXXXXX Dated: XXXX

#### Custom modification of a physical vapor deposition system with substrate manipulators

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 (5 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

Ambarish Ghosh Centre for Nano Science and Engineering 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.