## Global Tender Notification for the procurement of atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore

(Last date of submission of tenders: 10<sup>th</sup> January 2022)

Best quotations valid for 120 days are invited for the atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore. Your quotation should indicate the terms and conditions of the quotations, delivery, delivery schedule, entry tax, payment terms, warranty coverage etc. The tender should be submitted in two separate sealed envelopes – one containing the "Technical bid" and other containing the "Commercial bid", both of which should be duly signed and must reach the undersigned on or before 17:00 hours 10<sup>th</sup> January 2022 . C.I.P. Bangalore basis (by Air Freight only). Your quotation should mention the terms of delivery, delivery schedule, estimated delivery date, and payment terms.

The bids should be addressed to: The Chairperson, Centre for Nano Science and Engineering Indian Institute of Science Bangalore – 560012, India With attention to: Dr. Suresha S J

Please enclose a compliance statement along with the technical bid.

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## Section 1 - Bid Schedule

1	Tender No			
2	Tender Date	20 <sup>th</sup> December 2021		
3	Item Description	Supply and installation of atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore		
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)		
5	Place of tender submission	Chairperson Office First Floor Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012		
6	Last Date & Time for submission of tender	10 <sup>th</sup> January 2022		
7	For further clarification	Dr. Suresha S J MNCF Centre for Nano Science and Engineering Indian Institute of Science, Bangalore 560012 Email: sureshasj@iisc.ac.in Phone: +91 80 2293 3253		

## Section 2 – Eligibility Criteria

Prequalification criteria:

- 1. The Bidder's firm should have existed for a minimum of 5 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, attaching an authorization certificate with the technical bid from the original equipment manufacturer is mandatory.
- 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

## 1 Submission of Tender:

- 1. All documentations in the tender should be in English.
- 2. The tender should be submitted in two envelopes (two-bid system).
  - Technical Bid (Part-A) Technical bid consisting of all technical details and a checklist 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 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 only describe your compliance with a "Yes" or "No".Ensure that the entries in column 2 and column 3 are consistent.
    - iv. The fourth column should state the reasons/explanations/context for any deviations.
    - 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, provide further details, compare your solution with 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 disgualified).
  - b. Commercial Bid (Part-B) Indicating item wise price for the items mentioned in the technical bid, **as per the quotation format provided in tender**, and other commercial terms and conditions.
- 3. The technical and price bids should each be placed in separate sealed covers, superscribing the tender no. and the due date on both the envelopes. 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 superscribing tender number / due date & should reach Chairperson Office, Centre for Nanoscience and Engineering, Indian Institute of Science, Bangalore – 560012, India on or before the due date mentioned in the tender notice. If the due date happens to be a 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 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 of. For getting a GST exemption certificate, successful bidders must submit a formal request together with an Invoice copy and Purchase order copy.
- 7. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document.
- 8. If the price is not quoted in Commercial Bid as per the format provided in the tender document, the bid is liable to be rejected.
- 9. The vendor should have qualified technical service personnel for the equipment based in India and should assure a response time of <48 hours.

- 10. Technical evaluation by the purchase committee may include a demonstration to verify functionalities and capabilities of the system quoted. The institute reserves the right to provide samples after opening the technical bids to verify promised specifications. Any discrepancy between the promised specifications and measurements will be deemed as technical non-compliance. The quality of the data will also be considered during the technical evaluation.
- 11. Imported items should be shipped on C.I.P. Bangalore basis (by Air Freight only), and all components and accessories indicate component-wise and itemized breakup. Provide certificates for the country origin of manufacturing for each line item. The price of every line item in the commercial bid should be quoted along with the total quoted price for the instrument to be operational (installed and ready to use) in our facility.
- 12. The purchase committee reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time before the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
- 13. Incomplete bids will be summarily rejected.

## 2 Cancellation of Tender:

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

- 1. To accept OR reject the lowest tender or any other tender or all the tenders.
- 2. To accept any tender in whole or in part.
- a. To reject the tender, if it does not conform with the terms.

### 3 Validity of the Offer:

The offer shall be valid 120 Days from the date of opening of the commercial bid.

### 4 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 regarding acceptance and/or rejection of any offer in part or whole shall be the sole discretion of IISc Bangalore, and the decision in this regard shall be binding on the bidders.
- 4. The contract award 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 bids.
  - b. Receipt of bids after due date and time or by email/fax (unless specified otherwise).
  - c. Receipt of bids in open conditions.
- 6. If 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. The 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.

### 5 Pre-requisites:

The bidder will provide the pre-requisite installation requirement of the equipment along with the technical bid.

## 6 Warranty:

The complete system is to be under a warranty period of a minimum of 3 years (year-wise breakup value should be shown in the commercial bid). The vendor should include the cost of any spares that are expected to be needed during the warranty period, including electronics, subcomponents, and software. Vendors can assume usage of 2000 hours/year for this calculation. If the instrument is found to be defective, it has to be replaced or rectified at the bidder's cost 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.

## 7 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 the tender 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 satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

## 8 Delivery, Installation and Training

- 1. The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore, from the date of receipt of a purchase order.
- 2. The system should be delivered, installed and made operational within 90 days from receipt of the purchase order.
- 3. 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.
- 4. After successful installation, the handover date shall be the start of the warranty period.
- 5. No partial shipment is allowed.
- 6. The bidder should also arrange technical training for the local facility technologists and users.

### 9 Payment Terms:

- 1. 100% payments will be released after completion of delivery and satisfactory installation subject to TDS as per rules.
- 2. AMC cost (if ordered), after completion of the warranty period) will be released on a half-yearly basis at the end of each six months subject to satisfactory services.

3. Price basis must be on FOR-IISc Bangalore basis only.

## 10 Statutory Variation:

Any statutory increase in the taxes and duties subsequent to the 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.

## 11 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.

## 12 General:

- 1. All amendments, time extensions, 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 necessary information to establish capabilities to successfully complete the envisaged work. It is, however, advised not to provide 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

# 13 Technical Specifications of the atomic force microscope with various scanning probe capabilities

#### 13.1 Instrument Resolution

The instrument must have demonstrated atomic lattice resolution (sub A°) in AC mode and contact mode imaging. This must be done with the same large scan-range scanner that can also image at least  $100\mu m \times 100\mu m$  in a closed loop. This allows large survey scans to zoom in to get high-resolution images at a region of interest.

#### 13.2 Instrument Geometry

- 1. The XY scanner must be separate from the Z scanner to eliminate the "bowing" artefact commonly seen in Piezo-tube based (XYZ scanners) AFM systems. Piezo-tube-based scanner design will not be acceptable.
- 2. The cantilever holder and the optical lever assembly (laser, optics and detector) must be housed within a single rigid frame. This eliminates artefacts due to relative motion between the optical lever arm and the cantilever during imaging and force measurements.
- 3. The instrument must accommodate sample sizes up to 50mm (dia) and 10mm thick.

#### 13.3 Operating Modes and measurement options

- 1. The microscope must be capable of the following scanning modes. For each mode, the signals noted in the corresponding parentheses must be recordable simultaneously. These
  - a. Contact Mode
  - b. Tapping Mode (AC Mode)
  - c. Tapping Mode with Q-control
  - d. Dual AC
  - e. Phase Imaging
  - f. Force Curve Mode
  - g. Force Mapping Mode (Force Volume)
  - h. Force Modulation
  - i. Frequency Modulation
  - j. Fluid imaging
  - k. Lateral Force Mode (LFM)
  - I. Kelvin Probe Force Microscopy (KPFM)
  - m. Electric Force Microscopy (EFM)
  - n. Magnetic Force Microscopy (MFM)
  - o. Piezoresponse Force Microscopy (PFM)
  - p. Switching Spectroscopy PFM
  - q. Dual AC Resonance Tracking PFM or equivalent
  - r. Vector PFM
  - s. Vertical PFM
  - t. Lateral PFM with lateral force calibration option
  - u. Nanoindentation
  - v. Nanolithography/nanomanipulation
  - w. Multifrequency AFM or equivalent
  - x. High-resolutionenvironments while maintaining resolution & clarity.
  - y. Conducting AFM (also should be simultaneously performed with various modes of PFM). The system should allow conductive measurements while scanning as well as at userspecified locations (I-V curves). A sample bias of -10V to 10V is possible. The software

must allow user-specified waveforms for I/V spectroscopy (square, sine, triangle, pulse, or user-defined).

- z. Dual Gain option to simultaneously monitor current in two separate gains stages of  $1\mu$ A/V and 1nA/V sensitivities. With a range of ±10V, current from the noise floor of a few picoamps, up to 10  $\mu$ A should be monitored. Since the two channels are acquired simultaneously, there should be no need to withdraw and switch the stages when the current saturates in the higher gain stage. The current sensing range should be 10pA to 10  $\mu$ A
- Options to measure the frequency response of the cantilever at a specific tip-sample separation the amplitude response of the cantilever after holding the z-piezo at a specific tip-sample separation.
- The system must provide demonstrated imaging on piezo materials in the following imaging modes; Vertical PFM (out-of-plane polarization), Lateral PFM (in-plane polarization), Vector PFM (real space reconstruction of the polarization orientation) and Lithography for modification of the piezoelectric polarization.
- The system must include demonstrated spectroscopy modes: Simultaneous remnant and applied voltage hysteresis loops on ferroelectric materials and switching spectroscopy mapping (while measuring contact resonance frequency, PFM drive amplitude, PFM phase and tip-sample dissipation/Q-factor).
- 4. Pulse-relaxation measurements (while measuring contact resonance frequency, PFM drive amplitude, PFM phase and tip-sample dissipation/Q-factor)
- 5. The instrument must exhibit extremely low crosstalk between the tip-drive voltage and the measured deflection. The measure of crosstalk is defined as follows:
  - a. Position of the tip >1cm from the sample surface.
  - b. Apply the bias voltage to the tip.
  - c. The Sum signal should be at least 7 volts, and the deflection zeroed to provide the highest measurement sensitivity.
  - d. The measured amplitude at all frequencies should be less than 300 microvolts.
- 6. The system control must allow the user to route the AC bias to the tip or the sample through software control.
- 7. The PFM control software must include a variety of PFM spectroscopy modes in various complexity levels to perform user-defined bias curves.
- 8. The software must include sufficient analysis routines within the data analysis environment to eliminate the need to export, re-import into third party software, or interpret the exported data scales

#### 13.4 Optical Lever Arm: Light Source and Photodetector

- 1. The instrument optical lever arm must use a low coherence light source (for example, a superluminescent diode, SLD) to reduce artefacts from optical interference effects.
- 2. The instrument must use an infrared SLD (or equivalent) for the optical lever arm to eliminate optical crosstalk with epi- and transmission- fluorescence measurements.
- 3. Beam used for deflection detection must approach the probe at an angle that is significantly (>20 degrees) off vertical relative to the sample, such that reflections from the sample surface do not reflect the detector.

#### 13.5 System Scanner

- 1. The system must scan the sample in XY, and the tip in Z. Alternate approaches using exclusively tip-scanning, or sample-scanning are not acceptable substitutes.
- 2. Each axis of motion must be independently actuated using its piezo stack and flexure stage.

- 3. Should have Integrated LVDT position sensors in all three axes provide seamless closed-loop operation.
- 4. The system must include a closed-loop XY scanner with a minimum range of 100 μm or more (closed-loop). X and Y sensor noise must be less than 600pm ADev in a 0.1Hz to 1 kHz BW, with sensor nonlinearity <0.5% at full scan. Scanner noise specifications and representative high-resolution imaging examples must be available for inspection in publicly available brochures, datasheets or websites. The scanner must be compatible with all supplied scan modes and air and liquid environments.</p>
- 5. The system must include a Z scanner with a minimum range of 12  $\mu$ m or more capable of both open-loop and closed-loop operation. Z sensor noise must be less than 250 pm ADev in a 0.1 Hz to 1 kHz BW, with sensor Nonlinearity <0.05% at full scan.
- 6. DC Height Noise must be less than 50pm ADev in a 0.1Hz to 1 kHz BW. Scanner noise specifications and representative high-resolution imaging examples must be available for inspection in publicly available brochures, datasheets or websites.
- 7. The scanner must be compatible with all supplied scan modes and air and liquid environments.
- 8. The scanner must be closed-loop and independently actuated in X, Y and Z with dedicated piezo stacks.

#### 13.6 System optics

**Sample viewing:** Suitable camera system for tip/sample viewing should be included, with the following specifications:

- 1. A 10X objective in the head with top-view illumination and a built-in CCD camera for viewing the cantilever and sample Field of view switchable between 720 and 240 microns.
- 2. CCD camera with 5MP or more will be preffered and can be quoted as an option.

#### 13.7 Controller and Electronics

- 1. The system must use at least 24-bit digital-to-analog converters (DACs) to generate the XY and Z piezo scan signals.
- 2. At both 100-micron and 10-nm scan sizes, the corresponding bit resolution must be sub-Angstrom (<0.1 nm). Note that this specification applies to the generation of the scanner drive signals, not the sampling of the scanner position sensors.
- 3. The system must provide thermal tunes of the cantilever up to at least 2 MHz.
- 4. The instrument must allow digital Q-control in 2 kHz 2 MHz.
- 5. The instrument must include software-controlled relays for the X, Y and Z high voltage supplies and the laser power.
- 6. The electronics must provide access to the electrical signals on BNC connectors on the controller front panel, including deflection (A-B), sum (A+B), amplitude, phase, lateral force, X, Y and Z sensors, three user inputs, three user outputs, X, Y and Z piezo drive voltages, and user X, Y and Z modulation voltage inputs compatible with external hardware. There must also be an audio-out for earphone.
- 7. The instrument must include auto-configuration of external hardware and accessories. Device parameters must be stored in non-volatile RAM on the device itself and read into the software when the device is plugged in. This eliminates the need for parameter files.
- 8. The instrument must include a user-programmable control knob that can fine-tune and adjust all scan parameters.
- 9. Heads, scanners, probe holders and optional environmental control cells must be "plug and play", meaning that the software automatically recognizes them and configures the software appropriately (e.g. calibration parameters).
- 10. The system must be able to support multi-frequency AC mode (tapping mode) operation where two specific frequencies are driven simultaneously and detected simultaneously by lock-in

amplifiers to measure the amplitude and phase response at each frequency. Lock-in detection alone at two frequencies is not sufficient, as both frequencies must be driven simultaneously with a mixed drive signal.

#### 13.8 Software

- 1. Control and analysis must be user-programmable natively in an entirely open-source software programming language.
- 2. The system's software must include a one-click configuration tool that sets up the software for standard and user-defined operation modes, such as AC imaging in air and liquid, contact mode, EFM, KPFM, PFM, force measurements, etc.
- 3. The data acquisition system must record individual image sizes of 8000x8000 pixels or greater.
- 4. AFM control software environment must include 3D rendering technology for advanced image display. This feature must allow the user to generate, display, and visualize 3 & 4D real-time scan images and offline processing.
- 5. Must include drift compensation software. Software must allow a region of interest to be tracked in real-time to within 1 nm of precision while eliminating any scan distortion in the image. Drift compensation must be applied to any imaging, spectroscopy or advanced characterization mode and in conjunction with sample heating and cooling options.
- 6. The system must include a feature that automatically calibrates the cantilever sensitivity (deflection sensitivity/INVOLS) and spring constant by simply selecting the probe type and clicking a button. To avoid tip damage, at no point during the calibration may the tip touch the sample. The feature must calibrate the probe. It must not use nominal tabulated values for the sensitivity and spring constant.
- 7. Software must include a feature that automatically optimizes the imaging gain and setpoint for AC Mode (tapping mode) operation. The feature must use a predictive algorithm such that the operation is stable and produces high-quality data within the first few scan lines.

#### 13.9 Instrument Isolation

- 1. The system must include a thermally- and acoustically-isolating enclosure. The enclosure must provide at least 20dB of acoustic isolation.
- 2. The system must include an active vibration isolation table.
- 13.10 Support and Service
- 1. The system must be supported with spares and firware upgrades for atleast 15 years.
- 2. Must include free AFM software upgrades for the life of the instrument.

#### 13.11 Optional Accessories / Modules

- Quantitative Nano Scale Maps System configuration must include an imaging mode capable of generating quantitative nanoscale maps of storage and loss modulus, and loss tangent (loss modulus divided by storage modulus), at high pixel resolution (at least 1024x1024 pixels). Data capture must occur during normal AC mode topography imaging at normal scan rates (<20 minutes per scan). Proposals for techniques that map storage modulus only are insufficient and will be rejected.
- 2. A dedicated high voltage (+/- 220V) module for tip or sample bias is also required to measure materials with a weak piezoelectric response. The high voltage module must provide necessary safety features for safe and easy operation. With a tip bias voltage drive amplitude of 100V, sweep the drive frequency from 50kHz to 2MHz or better.
- 3. The system should include an accessory that applies a variable magnetic field parallel to the sample plane. The field strength can reach +/-0.5T (+/- 5000G) with a Maximum field ramp: 7000 G/minute. An integrated sensor measures the field strength near the sample with a resolution of ~1G, and the field strength is software controlled. The module should be based on a permanent magnet (not an electro-magnet) so that no cooling of the magnet is required even at the maximum field strength. This module must be capable of both in-plane and out of plane operation. The out of plane magnetic fields are possible with the inclusion of required pole pieces which allow field

ranges of approximately +/- 1500 Gauss in a bipolar configuration or about 0 - 2000 Gauss in a unipolar configuration. A handheld gaussmeter for measuring fields is to be provided.

- 4. Variable temperature stages that range from 20 deg C to 300 deg C should also be offered.
- 5. Environmental control: RH, temperature, inert environment like N2

## 14 Spares and accessories

Sample holder (Std. magnetic sample disks), generic holders, spring clips, Non-contact mode probes, probes for nanoindentation, probes for sidewall roughness measurement, contact mode probes and relevant probes for every mode, Necessary cords and cables, Required standard and reference samples.

## 15 Training and demonstration

The successful bidder must provide training (hardware and software) at the bidder's cost to the users at IISc, Bangalore.

## Section 5- Technical Bid

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

The Chairperson, Attn: Dr. Suresha S J 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 an 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

Supply and installation of atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore Sir,

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

(Signature of the Bidder) Printed Name The 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

Supply and installation of atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore

Sir,

I've carefully gone through the Terms & Conditions contained in the above-referred tender. I 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 a competent officer in my company/firm to make this declaration.

#### Or

I declare the following

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

(NOTE: If the company/firm was blacklisted previously, please provide the details regarding the 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

Supply and installation of atomic force microscope with various scanning probe capabilities at MNCF, CeNSE, IISc Bangalore Sir,

I've carefully gone through the Terms & Conditions mentioned in the 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:

- a. Details of items quoted:
- b. Company Name
- c. Product Name
- d. Part / Catalogue number
- e. Product description / main features
- f. Detailed technical specifications
- g. 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 the technical bid.
- 3. Bidders should clearly indicate compliance or non-compliance with 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	Subtotal
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 the				
	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. Suresha S J Centre for Nano Science and Engineering Indian Institute of Science Bangalore – 560012, India

## Section 7 – Checklist

(This should be enclosed with the 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) superscribing 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 superscribed with tender No., Tender description & Due Date.