

Institute of Nano Science and Technology

Habitat Centre, Sector 64, Phase X, Mohali -160062, Punjab, India Ph: +91-172-2210073/75; Fax: +91-172-2211074; E-mail ID: purchase@inst.ac.in

NOTICE INVITING TENDER RETENDER

INST invites tender from the reputed manufacturers or their authorized dealers so as to reach this office on or before scheduled date and time for the instrument, as per specifications given in the Annexure attached to the Tender form. All offers should be made in English and should be written in both figures and words. Tender forms can be downloaded from the website (www.inst.ac.in) of the Institute.

The bidders are requested to read the tender document carefully and ensure compliance with all specifications/instructions herein. Non-compliance with specifications/instructions in this document may disqualify the bidders from the tender exercise. The Director, INST reserves the right to select the item (in single or multiple units) or to reject any quotation wholly or partly without assigning any reason. Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.

EQUIPMENT DETAILS

| S. No. | Ref. No. | Item Description | Qty | Tender Fee (Nonrefundable) | EMD |
|-----------|---------------------|---|--------|-------------------------------|--------------|
| 1 | INST/12(8)/2019-Pur | Field Emission Set-up with Accessories (RETENDER) | 01 No. | Rs. 590/- | Rs. 65,000/- |

| IMPORT \NT NOTE, DATES & TIME | | | | |
|--|--|--|--|--|
| Last Date & Time For Submission | 12 th November 2019 (1400 HRS) | | | |
| Date / Time of Opening of Bids | 12 th November (1500 HRS) | | | |
| Venue of tender Opening and submission at INST | INST, Habitat Centre, Phase 10, SAS Nagar, Sector 64, Mohali | | | |

Interested bidders may purchase the tender document directly from the office of INST by paying Rs.590/- or download the tender documents directly from the website and deposit Rs. 590/- (Five Hundred Ninety only) in favour of Director, INST towards tender fees in INST account mentioned at s.no. 8 of the terms of tender. Both the bids i.e. the Technical & Price bids must be submitted on or before 12th November 2019 upto 2.00PM along with EMD.

IMPORTANT NOTE:

- PLEASE STRICTLY ADHERE TO THE DATES / TIMES MENTIONED IN TENDER DOCUMENT
- The bids (Technical Bids) will be opened in the presence of representatives of tenderers, if any. If any unscheduled holiday occurs on the date of submission/opening, then next working day shall be the prescribed date of submission/opening. Requests for postponement will not be entertained. Fax/email bids may not be accepted. The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids or due to any reason. Late/Delayed tenders shall not be considered/entertained.
- In case, the bid has been submitted by your firm then need not to submit it again. However, if bidder
 want to revise their bid, they can revise their bid accordingly. Latest bid received will be considered for
 further process and earlier submitted bid will be treated as cancelled.
 In the event of non-receipt of revised bid, earlier received bid will be considered for further process.



The Director, INST reserves the right to accept/reject any offer in part or full without assigning any reason.

TERMS AND CONDITIONS

BID PARTICULARS

| 1. | Name of the Supplier: | | | | | |
|----|---|--|--|--|--|--|
| 2. | Address of the Supplier: | | | | | |
| 3. | Availability of demonstration of equipment : Yes / No | | | | | |
| 4. | Tender cost enclosed: : Yes/No if yes | | | | | |
| 5. | | | | | | |
| | Transaction ID/No. of Transfer | | | | | |
| | Transaction date: | | | | | |
| | Amount of Transaction | | | | | |
| | Name of Bank | | | | | |
| | Address of Bank | | | | | |
| 6. | Name and address of the Officer/contact person to whom all references shall be made regarding | | | | | |
| | this tender enquiry Name: | | | | | |
| | Address: | | | | | |
| | Ph: | | | | | |
| | Fax: | | | | | |
| | Mobile: | | | | | |
| | Email: | | | | | |
| | Web: | | | | | |
| | | | | | | |



Compliance statement for the tender specifications

Tender Ref No.: <u>INST/12(8)/2019-Pur</u>

| S.No. | Check list of documents/Undertakings | Yes/No | Remarks (give explanation if the answer is No) | | | | |
|-------|---|--------|--|--|--|--|--|
| 1. | Is EMD details attached? (if applicable) | | | | | | |
| 2. | Is the bidder original equipment manufacturer (OEM)/authorised dealer? | | | | | | |
| 3. | If authorised dealer, recent dated certificate to this effect from OEM, attached or not? | | | | | | |
| 4. | Undertaking from OEM regarding technical support & extended warranty period | | | | | | |
| 5. | Validity of 180 days or not? | | | | | | |
| 6. | Price Reasonability Certificate enclosed as per format?? | | | | | | |
| 7. | Undertaking from bidder regarding acceptance of tender terms & conditions | | | | | | |
| 8. | Whether list of reputed users (along with telephone numbers of contact persons) for the past three years specific to the instrument attached? | | | | | | |
| 9. | Does the instrument comply with all the specifications detailed? Attach a separate sheet showing compliance with the specifications and explanations thereto if the equipment varies from the requested specifications. | | | | | | |
| 10. | Whether free Installation, Commissioning and Application Training offered? | | | | | | |
| 11. | Whether comprehensive onsite warranty offered? | | | | | | |
| 12. | Whether Annual maintenance after expiry of comprehensive onsite warranty quoted separately? | | | | | | |
| 13. | Whether free of cost shifting of instrument from transit campus to main campus offered? | | | | | | |



Annexure - 1

PRICE REASOINSTLITY CERTIFICATE (to be submitted in financial bid envelope)

| This is to certify | | ered the maximum po for (Value Rs.) _ | essible discount to you in our Quotation No. |
|--------------------|-------------------|--|--|
| item on lesser ra | ates than those b | • | ninimum and we have not quoted the same to any other customer nor we will do so till ichever is later. |
| | | | Seal and Signature of the tenderer |



Format of the Integrity Pact INTEGRITY PACT

Between

Andherein referred to as "The Bidder / Contractor."

| Institute of Nano Science and | Technology (INST) |) hereinafter referred to as | "The Principal". |
|-------------------------------|-------------------|------------------------------|------------------|
| | | | |

| Prea | mble | | | | | | | | | |
|-------|--------------|------------|-------|----------|---------|--------|----------|------------------|-----------------|-------------|
| The | Principal | intends | to | award, | under | laid | down | organizational | procedures, | contract/s |
| for | | | | | The P | rincip | al value | es full complian | ce with all rel | evant laws |
| of th | e land, ru | les, regul | latio | ns, ecor | nomic u | se of | resour | ces and of fairr | ness/ transpai | ency in its |
| relat | ions with it | s Bidder(| s) a | nd/or Co | ntracto | r(s). | | | | |

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- (a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- (b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- (c) The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

Section 2 – Commitments of the Bidder(s)/Contractor(s)

The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

(a) The Bidder(s)/Contractor(s) will not, directly or through any other Person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.



- (b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- (c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the

Bidder(s)//Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s).

Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.

- (e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future Contracts If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex -"B".

Section 4 – Compensation for Damages

- (1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

- (1) The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other Company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".



Section 6 – Equal treatment of all Bidders/Contractors/Sub-contractors

- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
- (3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidders/Contractors/Sub contra--ctors (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the THE DIRECTOR, INST. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
- (4) The principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit nonbinding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- (6) The Monitor will submit a written report to the THE DIRECTOR, INST within 30 days from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.
- (7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Director, INST.
- (8) If the Monitor has reported to the THE DIRECTOR, INST, a substantiated suspicion of an offence under relevant IPC/PC Act, and the THE DIRECTOR, INST has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- (9) The word 'Monitor' would include both singular and plural.



Section 9 – Pact Duration

This Pact begins when both parties have legally singed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by THE DIRECTOR, INST.

Section 10 – Other provisions

- (1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the Principal, i.e. Mohali, Punjab.
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

| (For & On behalf of the Principal) (Office Seal) | (For & On behalf of Bidder/Contractor) (Office Seal) |
|--|--|
| Place | Place |
| Date | Date |
| Witness 1: (Name & Address): | |
| Witness 2: (Name & Address): | |



Technical Specification for field emission setup

- 1. Chamber size= Height:23 cm and Diameter=34 or more
- 2. Chamber Materials- Stainless Steel (304 SS)
- 3. The system should be provided with Rotating sample holder for at least 5 samples at a time.
- 4. Anode and cathode should be in vertical direction would be preferable.
- 5. Capable of adjusting anode-cathode distance variation from outside of chamber by Motorized Micrometre screw without breaking the vacuum.
- 6. The system should have 8 ports for following function
 - a. Two ports for electronic connections (Anode and Cathode)
 - b. Three ports for vacuum gauges (Pirani gauge & cathode)
 - c. Two spare ports (Two-face unwanted situations)
 - d. One port for turbomolecular pump
- 7. The system should have the facilities of Hipace 300 turbo pump with backing pump and gauge for the following function
 - a. TV-301 Navigator turbo molecular pump
 - b. Digital penning gauge DPNG-003
 - c. They should provide Vacuum upto 10⁻⁶ mbar
 - d. Pumps should not be oil based
- 8. The system should have inbuilt CCD camera
- 9. 10KV power source
 - a) Voltage range: 10 V to 10000 V
 - b) Voltage set accuracy: $\pm 0.06\%$ of the full scale (or less)
 - c) Voltage display accuracy: voltage set accuracy ±1 V
 - d) Voltage resolution: 50mV
 - e) Voltage limit range: 0 to 100% full scale

10. Nano ammeter:

- a) Current range: 10nA to 10 A
- b) Minimum Resolution required: Current (Measure- 10 femtoampere), Voltage (Measure 10 nV)
- c) Basic Accuracy: 0.012% or better
- d) Sweep Features: Linear, Log, Dual Linear, Custom
- e) Memory Buffer: >250000 points
- f) Communication: GPIB, ETHERNET, USB
- g) Display: Display of at least two parameters: Digital display at least 6.5 digits
- h) Capable of handling at least 10 kV external DC source
- 11. Baking tape with thermocouple display and variac
- 12. Power supply mode: Forward bias mode
- 13. The system must be provided with a load lock facility
- 14. Florescent screen: Phosphor coated glass plate
- 15. Micrometre screw to adjust electrode distance: Stepper motor connected with movable cathode from the bottom of the chamber (without breaking the vacuum).
- 16. The system must be provided to have the feature of Pointed anode as well as parallel plate anode configuration (1to 2 inch)
- 17. Computer along with printer and computer interfaced lab view software



- a) The computer should have at least minimum 16 GB RAM and 2TB hard disk
- b) Minimum 28" display
- c) DVD writer should be there
- d) 4GB graphics card
- e) Core-i7 processor
- 18. Since, this is an assembled system, hence the details have been summarised in fig. 1

