

Centre for Nanoscience and Nanotechnology

(Department of Physics)

Panjab University Chandigarh-160014, India

Tender Document

For the Purchase of

Fourier Transform Infrared Spectrometer (FTIR)

Reference **NSNT/_3691**

Tender Fee : **₹ 500.00**

Date Published : 15-02-2018

Due on (last date for submission). : **05-03-2018 until 5:00 PM**

Date of Opening of Technical Bid : **06-03-2018 at 3:30 PM**

Contact:

Coordinator,
Centre for Nanoscience and Nanotechnology (CNSNT)
Block-II, South Campus, Panjab University, Sector-25,
Chandigarh-160014
Phone: +91-172- 2541741 Fax: + 91-172- 2783336
E-mail: cnsnt@pu.ac.in

SECTION – I

PROCEDURE FOR SUBMISSION OF BIDS

1. There will be **two bid system** for this Tender: Techno-Commercial bid and Financial bid.
2. Tender fee of ₹ 500/- (Rupees five hundred only) is to be submitted along with the Tender in the form of demand draft of ₹ 500/- payable at Chandigarh in favour of ' The Registrar, Panjab University' Chandigarh.
3. The two documents viz., Techno-Commercial bid and financial bid covers prepared as above should be uploaded electronically on website <https://etenders.chd.nic.in/nicgep/app>

Tender for the supply of: Fourier Transform Infrared Spectrometer (FTIR)

Due on (last date for submission). : **05-03-2018 until 5:00 p.m**

Name & Address of the Tenderer: Co-ordinator, Centre for Nanoscience and Nanotechnology, Block-II, South Campus, Panjab University, Chandigarh - 160014

Note: Price should not be indicated in the Techno-Commercial bid otherwise the Tender will be rejected.

4. Tenders received after the due date will not be accepted. If the date of opening of the technical bids falls on any declared holiday in the University, the next working day will be considered. All documents to be submitted electronically. However, original documents related to tender fee and EMD must reach the office on or before the opening of the technical bid.
5. The bids prepared by the Tenderer and all correspondence and documents relating to the bids, shall be written in English language with clarity. Any overwriting is not acceptable.
6. The contract for the supply of the items is non-transferable.
7. Each offer should be complete in all respects. All terms and conditions mentioned in the tender documents should be provided with pointwise clarification.
8. Telegraphic/e-mail/conditional offers will not be accepted.
9. The bidder is advised to quote the rates against the specifications given in the BoQ only.

SECTION – II

TERMS AND CONDITIONS

1. **Opening of bids:** Techno-Commercial bids will be opened by the Committee after the closing date and studied. The Tenderers will be invited for presentation and clarifications if needed. Financial bids of the Tenderers complying with the prescribed Techno-commercial specifications will be opened by the Committee. Tenderers or their authorized agents may be present if they so desire during opening of the Tenders.
2. **Rejection of bids:** The Committee reserves the right to reject any or all offers without assigning any reason.
3. **EMD:** The Tender bid should accompany EMD of Rs 30000 (Rupees thirty thousand only). The EMD should be made by means of an A/C payee DD in favour of the '**The coordinator, Centre for Nanoscience and Nanotechnology, Panjab University Chandigarh**'. No interest is payable on EMD. Please note that the bank cheque will not be considered. If any exemption for EMD is given by government of India, bidder must provide copy of the exemption certificate from concerned authority.
4. **Refund of EMD:** The EMD will be returned to unsuccessful tenderer only after the Tenders are finalized. In case of successful tenderer, it will be retained till the successful and complete installation of the equipment.
5. **CIF value and comparison of financial bids:** CIF value upto CNSNT, Panjab University, Chandigarh (*shipment by air upto Delhi and insured up to the installation site*) should be quoted and will be considered for comparison of bids. Bids quoted in foreign currency will be converted into Indian Currency at the exchange rate applicable on the day of opening of the financial bids for comparison purposes.
6. **Warranty Period:** The warranty period should be *minimum 2 years (with spares)* from the date of installation with satisfactory performance as per specifications. The up time of instrument during warranty should not be less than 90 % in one year. In case the fault persists for more than one week then CNSNT has the right to impose penalty. Further the period of warranty will be extended by the vendor accordingly.
7. **PBG:** Tenderer selected for supply of equipment, will have to provide Performance Bank Guarantee (PBG) on any *scheduled bank situated in India, equivalent to 5 % of the cost of the equipment* which should be valid until the expiry of the warranty period. The PBG will be provided by the Company along with the letter of acceptance of the order by the Principals. LC will be opened in favour of the Principals only after obtaining the PBG.
8. **Terms of Payment:** LC will be opened for the 100 % value of the equipment, 90 % of the amount will be released after the shipment and remaining 10 % after the installation of the equipment.
9. **Delivery period:** Delivery should be made within *60 days* of opening of the LC.

10. **Delayed delivery:** If the delivery is not made within the due date for any reason, the Committee will have the right to impose penalty as under:
- i. First extension for one month or part thereof @ 2%.
 - ii. Second extension for an additional month or part thereof @ 3%
11. **Non delivery beyond extended period:** If the Tenderer fails to execute the order within the second extension mentioned above or mutually agreed time frame, the order will be cancelled and EMD forfeited by the University. He will also be liable for all damages imposed by CNSNT for non-supply of equipment including the liability to pay the difference between the price accepted by him and those ultimately paid by the CNSNT for the equipment, such damages will be assessed by the committee for the purchase of spin coating unit (spin coater).
12. Increased statutory levies and duties above the rate quoted in the offer will not be an excuse for the tenderer to delay the supply beyond the date specified in the tender.
13. **Validity of rates:** Rates quoted should be valid for at least 6 *months* from the closing date of the tenders.
14. **Consistent pricing:** The rates quoted for the Equipment by the supplier shall in no case exceed the lowest price at which the supplier of this equipment of identical description made to any other person/organization/Institution during the above said period and should attach an undertaking in this regard.
15. **Installation Requirements:** The Supplier will clearly mention installation requirements on our part in the *Techno-Commercial bid*.
16. **Installation Time:** The Company must install the equipment within a period of one month of the date of delivery of the equipment at CNSNT, Panjab University, Chandigarh.
17. **Free Installation:** The equipment and software should be installed and tested to the specifications *free of cost*.
18. **Supporting Equipment:** The Tenderer will provide all requisite supporting equipment like vacuum pump, stabilizer, computer, speciality gases for satisfactory running of the instrument. A complete operational system is needed.
19. **Licensed Software and its Upgradation:** The *user licence* for software (if any) should be provided. The certified/licensed software and programs should be the part of the supplies.
20. **Factory Acceptance Data:** Proposed acceptance criteria for the equipment should be provided by the supplier in order to compare the performance against the quoted specifications. *Manufacturer's test certificate along with test conditions and results* is to be supplied along with the equipment.

21. 2 % of IGST (or 1% CGST +1 % SGST/UTGST) will be deducted at source (if applicable) on taxable goods or services or both.
22. Tenderers are advised to study all technical aspects and terms & conditions, of the tender documents. Submission of tender shall be deemed to have been done after careful study and examination of the Tender Documents with understanding of its implications.
23. **Only Manufacturers or Authorized dealers to bid:** The offering firm should clearly mention whether they are the manufacturer or authorized agent/dealer of the manufacturer. In case of agent for overseas manufacturer, a letter of authorization from the manufacturer should be submitted along with the offer. The Tenderer can also enclose the rates on the letterhead of the manufacturer if he has been authorized to do so by the manufacturer.
24. **Descriptive literature:** Electronic copy of the (the printed copies can be submitted along with the envelopes containing the EMD documents) literature and catalogue/brochure giving full technical details should be included with the technical bid to verify the specifications quoted in the tender. The bidders should submit copies of suitable documents in support of their reputation, credentials and past performance in pdf format.
25. **User and Service Manuals:** A set of User's manuals and Service manuals of the main instrument, attachments and related equipment should be supplied with the equipment.
26. **Equipment must be new:** The Tenderer must ensure that the equipment being offered is a new one and not refurbished or repaired one.
27. **Defective Equipment:** If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, un-merchantable or not in accordance with the description /specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the tenderer with 18 % interest if such payments for such equipment has already been made.
28. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges.
29. Furnishing of wrong/ambiguous information in the compliance statement may lead to rejection of bid and further black listing of the bidder, if prima-facie it appears that the information in the compliance statement was given with a malafide/fraudulent intent.
30. **Damage during transit:** In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk.

Supplier will settle his claim with the insurance company as per his convenience. Panjab University will not be liable to any type of losses in any form.

31. **Legal jurisdiction:** Any dispute in this regard of any term of the offer and on the supply of equipment is subject to *Chandigarh jurisdiction* only.
32. **Training:** Training should be provided free of charge at the premises of CNSNT for equipment usage & software and maintenance in accordance to the customer satisfaction.
33. **Availability of Spares:** The Tenderer must assure the availability of spares for servicing of equipment *for at least 5 years*. Supplier should give an undertaking that spares parts will be supplied within the specified periods as and when ordered, if any.
34. **Infrastructure at installation site:** CNSNT will provide required infrastructure for the installation of the equipment.
35. **Clearance:** The Principals will do all types of clearance work to deliver the equipment at the site of installation. CNSNT will provide all types of documentary support for customs clearance and road transport. Principals will themselves have to procure any requisite permission from the Govt. of country of origin of equipment.
36. **Bank Charges:** Bank charges in India will be borne by the Panjab University and Bank charges abroad will be borne by the suppliers.
37. **Similar Models installed:** The Tenderer must mention in the *Techno-Commercial bid* the similar model of equipment installed in India *during the last two years* and the *addresses of contact persons at these places*.
38. **Application Specialist:** The Tenderer should mention in the *Techno-Commercial bid* the availability and *names* of *Application Specialist* and *Service Engineers* in the nearest regional office.
39. **Response Time:** The Tenderer should mention in the *Techno-Commercial bid* the response time for attending to a complaint about the equipment.
40. **Change of Indian Representatives:** The original manufacturer/Principals should give an undertaking that the aforementioned warranty and availability of spares clauses will be valid even in the case of change of their representatives in India.

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

D.D. No. _____ Bank _____ Amount _____

5. EMD enclosed : Yes / No if Yes

D.D. No. _____ Bank _____

6. Name and address of the Officer/contact person to whom all references shall be made regarding this tender enquiry.

Name :

Address :

Telephone No. :

Fax No. :

Mobile No :

e-Mail :

Web :

< Organization Letter Head >

DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification. This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/Govt. Department/Public Sector Undertaking in the last three years.	NAME & ADDRESS OF THE Vendor/ Manufacturer / Agent
1 Phone	
2 Fax	
3 E - mail	
4 Contact Person Name	
5 Mobile Number	
6 TIN/ GSTIN Number	
7 PAN Number	
8 Kindly provide bank details of the bidder in the following format:	
a) Name of the Bank	
b) Account Number	
c) Kindly attach scanned copy of one Cheque book page to enable us to return the EMD to unsuccessful bidder	

Technical Specifications to supply Fourier Transform Infrared Spectrometer (FTIR)

Guaranteed specifications must be demonstrated at the time of installation)

Specifications	Details
Make	PERKIN ELMER, SHIMADZU, JASCO, THERMOSCIENTIFIC, BRUKER
Description	<p>The instrument should be provided with</p> <ul style="list-style-type: none"> Fully controlled by external PC. Completely sealed & desiccated optics, Data handling and control with software. The system should be equipped with ATR attachment along with Diamond crystal kit, which can analyse Liquid, solid, powder, and Thin film samples
Spectral Range	7500 - 350 cm ⁻¹ or better
Beam Splitter	KBr
Spectral resolution	0.5 cm ⁻¹ or better
Signal-to-noise ratio (peak to peak):	Minimum 45,000:1 or better
Detectors:	High sensitivity DTGS/DLaTGS
Light Source	Mid IR source/as required for the spectral range
Reference Laser	Solid state or He-Ne laser
Interferometer	Permanently aligned/auto aligned gold coated mirrors or better technology
Purge	Standard (Interferometer, sample compartment, detector)

Software and Interface	<ol style="list-style-type: none"> 1. A branded PC (Processor i3 or higher) with genuine OS, minimum of 500 GB storage capacity, RAM (minimum 4 GB) and laser jet printer. 2. Suitable software for Spectral collection, Quantitative analysis, baseline correction, smoothening, derivatization, spectral deconvolution. The software should be provided along with the user manuals. 3. Appropriate UPS with 30 min backup for the instrument and PC. 4. Any additional tools (power cables, network cables, screw driver, etc.) required for the handling of the FTIR spectrometer should be provided.
Power	100 – 240 V AC (50/60 Hz, compatible with Indian standard)
Warranty:	5 year warranty on interferometer (including beam splitter), laser and source. Extended warranty should also be quoted separately.
AMC	<p>Comprehensive Annual Maintenance Contract Beyond Warranty Periods</p> <p>(Rates to be quoted on yearly basis)</p>
Installation and training	Installation and training should be provided at the installation site.
Accessories	<ol style="list-style-type: none"> 1. Transmission module must be quoted with Pellet Holder/ Liquid Cell, Die Set, KBr Powder, Silica Gel (Sufficient quantity for upkeep), Agate/pestle & 15 ton HYDRAULIC Press, 2. NIST certified/traceable polystyrene film for calibration 3. System should be quoted with certified library for 2500 – 3000 or more spectra 4. Automatic vapor correction. 5. Air conditioner (Split 1.5 ton) for maintenance of laboratory Temperature 6. Upgradation for temperature in reflection and transmission mode and gas inlet 7. N₂ gas cylinder (If required)

Annexure-1

Technical Specifications for the supply of **Fourier Transform Infrared Spectrometer (FTIR)**

Specifications	Details	Please mention (Yes/No)
Make	PERKIN ELMER, SHIMADZU, JASCO, THERMOSCIENTIFIC, BRUKER	
Description	The instrument should be provided with <ul style="list-style-type: none">Fully controlled by external PC.Completely sealed & desiccated optics,Data handling and control with software.The system should be equipped with ATR attachment along with Diamond crystal kit, which can analyse Liquid, solid, powder, and Thin film samples	
Spectral Range	7500 - 350 cm ⁻¹ or better	
Beam Splitter	KBr	
Spectral resolution	0.5 cm ⁻¹ or better	
Signal-to-noise ratio (peak to peak):	Minimum 45,000:1 or better	
Detectors:	High sensitivity DTGS/DLaTGS	
Light Source	Mid IR source/as required for the spectral range	
Reference Laser	Solid state or He-Ne laser	

Interferometer	Permanently aligned/auto aligned gold coated mirrors or better technology	
Purge	Standard (Interferometer, sample compartment, detector)	
Software and Interface	<ol style="list-style-type: none"> 1. A branded PC (Processor i3 or higher) with genuine OS, minimum of 500 GB storage capacity, RAM (minimum 4 GB) and laser jet printer. 2. Suitable software for Spectral collection, Quantitative analysis, baseline correction, smoothening, derivitization, spectral deconvolution. The software should be provided along with the user manuals. 3. Appropriate UPS with 30 min backup for the instrument and PC. 4. Any additional tools (power cables, network cables, screw driver, etc.) required for the handling of the FTIR spectrometer should be provided. 	
Power	100 – 240 V AC (50/60 Hz, compatible with Indian standard)	
Warranty:	5 year warranty on interferometer (including beam splitter), laser and source. Extended warranty should also be quoted separately.	
AMC	Comprehensive Annual Maintenance Contract Beyond Warranty Periods (Rates to be quoted on yearly basis)	
Installation and training	Installation and training should be provided at the installation site.	
Accessories	<ol style="list-style-type: none"> 1. Transmission module must be quoted with Pellet Holder/ Liquid Cell, Die Set, KBr Powder, Silica Gel (Sufficient quantity for upkeep), Agate/pestle & 15 ton HYDRAULIC Press, 2. NIST certified/traceable polystyrene film for calibration 3. System should be quoted with certified library for 2500 – 3000 or more spectras f 4. Automatic vapor correction. 5. Air conditioner (Split 1.5 ton) for maintenance of laboratory Temperature 6. Upgradation for temperature in reflection and transmission mode and gas inlet 7. N₂ gas cylinder (If required) 	

