



तेजपुर विश्वविद्यालय / TEZPUR UNIVERSITY

(केंद्रीय विश्वविद्यालय / A Central University)

कुल सचिव का कार्यालय / OFFICE OF THE REGISTRAR

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NOTICE INVITING QUOTATION (NIQ)

ET-NIQ-5356-DT-07.02.2020

Online Tenders in 02 Bid System (Technical and Financial) are invited from reputed manufacturers/authorized dealers for supply, installation & commissioning etc. of the following items required for UGC-SAP, Department of Chemical Sciences, Tezpur University.

Please read the NIQ document carefully before participating. It shall be deemed that submission of bid by the bidder has been done after their careful study and examination of the NIQ terms with full understanding to its implications. Any lack of information shall not in any way relieve the bidder of its responsibility to fulfill its obligations under the Bid.

The University will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for, or in executing, the Purchase Order. Fraudulent Practice means a misrepresentation of facts in order to influence a procurement process and includes collusive practice among bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive Tezpur University of the benefits of free and fair competition. Corrupt Practice means offering, giving, receiving or soliciting of anything of value, pressurizing to influence the action of a public official in the process of this purchase execution.

For any queries/doubt please contact the Stores & Purchase Section (e-mail: snp@tezu.ernet.in).

Items:

SL No	Item	Approximate Quantity	Approximate Unit Value in ₹
1.	Powder X ray Diffractometer	01	80 lakhs

(Detailed Technical Specification/Compliance Sheet and BoQ are attached/uploaded separately)

General Information about the NIQ

Last date and time for submission of Bids: 26.02.2020 (2.00 PM)

Date and Time of opening of Bids: 28.02.2020 (4.00 PM)

Place of Opening of Bids: Tezpur University

GENERAL TERMS & CONDITIONS:

1. No separate tender paper will be issued from the office; one should only download the specifications from the CPP Portal of Govt. of India or the Tezpur University website (www.tezu.ernet.in).

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2. **GST:** As per GoI Notification dated 14.11.2017 GST % for Public Funded Research Institution or a University has been reduced to 5% for certain goods and services. Hence, reduced rate of GST shall be paid if applicable on the tendered items. Exemption Certificate will be provided on request.
3. **Rates:** Rates quoted should be on FOR Tezpur University, Napam, Tezpur, Door Delivery Basis, for indigenous items and CIP Tezpur University, Napam, Tezpur or Delivered Duty Paid, for imported item. Failure to comply with this term may lead to rejection of the quotation.
4. **Quotations should be accompanied by** i) An EMD (in the form of Demand Draft/Banker Cheque) for ₹ 160000.00 (Rupees One Lakh Sixty Thousand) only drawn in favor of Registrar, Tezpur University, payable at Tezpur. **No request for consideration of earlier deposited EMD will be considered.** ii) A non-refundable application (quotation/participation) fee of ₹ 5000.00 (Rupees Five Thousand) only must be paid only by Demand Draft/Banker Cheque drawn in favour of Registrar, Tezpur University payable at Tezpur. iii) **The original copies of the EMD & Quotation/Participation Fee should be deposited/submitted/reach the office of the undersigned before opening of the Bids in an envelope superscribed as "Quotation/Participation Fee and EMD for ET-NIQ-5356.....DT-07-02-2020" addressed to the Assistant Registrar-GA, Tezpur University. Failure to do so may result in rejection of the bid.**
5. **Exemption:** To Bidders who are MSME/NSIC registered may claim exemption from payment of EMD only subject to submission of valid documents in support of their claim. Bidders seeking exemption are asked to clearly mention the category under which exemption is claimed. The category of exemption under MSME/NSIC will be strictly adhered to. **Payment of tender fee is a must and is not exempted. However, the University will make provisions for the tender documents free of cost in its website as well as in CPP Portal.**
6. The rates should be exclusive of taxes and applicable tax % should be clearly indicated.
7. **Validity of Quotation:** Quoted rates must be valid for at least **180 days** from the last date of submission of quotation.
8. Applicable levies, surcharge and discounts should be clearly indicated item wise.
9. The rates should be quoted along with supporting documents of specifications and technical features and list of users, wherever applicable.
10. The system must be installed at the laboratory wherever applicable, and after installation a basic training must also be provided by the supplier or their Indian counterpart without any additional costs.
11. **Literature a must:** All the quotations must be supported by technical leaflet/literature and the specifications mentioned in the quotation must be reflected/ supported by such technical leaflet/literature. The model and specifications quoted should **invariably be highlighted** in the leaflet/literature for easy reference.
12. **Technical Evaluation:** The bidder should provide the standard technical literature on the subject offered with dealership certificate of the offered product(s). The offers which do not meet the NIQ required technical specifications will be summarily rejected, from any further consideration. Technical bids will be evaluated and ranked by the award ACCEPT & REJECT. The price bids of ACCEPTED vendors would then be considered by the concerned Purchase Committee of the institute.
13. **After Sales Service Guidelines:** The Bidders should clearly state the detailed address, contact number and email ids of 'after sales service centre' preferably in Tezpur/Guwahati, India or any place in Assam without which their offers shall be liable for rejection. Service against any complaint must be provided within 24 hours

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14. **Dealership Certificate:** Dealers or Agents quoting on behalf of Manufacturer must upload valid dealership certificate.
15. **Quality Certificates:** Valid certificate to prove that the products are genuine and of International standard, as mentioned below, must be uploaded: (a) Manufacturer's certificate; (b) ISO/ISI certificate.
16. **Performance Bank Guarantee:** If PO value is above Rs.5 Lakhs, the successful bidder, to whom the PO is placed, shall furnish an unconditional Performance Bank Guarantee from a scheduled Bank of India, for 10% of the Purchase Order value, alongwith the Bill/Invoice. The format for PBG if required; will be provided on request. In case of foreign purchase, the local Agent shall submit the PBG. Where the PBG is to be necessarily given by a foreign bank it shall be endorsed by its counterpart in India. Validity of the PBG, which shall be effective from the date mentioned therein, shall be *warranty period + 2 months before and 3 months after the warranty period.*
 - a. **By submitting the PBG, the vendor is understood to have guaranteed that,**
 - i. The Purchase Order (PO) shall be executed as per terms and conditions mentioned therein.
 - ii. The vendor shall at his/their own cost rectify/replace the defects, if any, during the guarantee period.
 - iii. The guarantee is to the extent of 10% of the order value.
 - b. **Condition for invoking PBG:** In case of failure to comply with the guarantees above, Tezpur University, Napam, Tezpur may terminate the contract / purchase order in whole or in part and forfeit the PBG. In addition, Tezpur University, Napam, Tezpur, at its discretion, procure upon such terms and in such manner as it deems appropriate, goods similar to the undelivered items/products and the defaulting supplier/vendor shall be liable to compensate Tezpur University, Napam, Tezpur for any extra expenditure involved."
17. **Genuine Pricing:** Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold, particularly to Universities/IITs/Institutes and other Government Organization.
18. **Payment:** 100% payment after successful delivery, installation and commissioning and acceptance by the user. ***Please note that as per University's norm advance payment is not allowed for indigenous purchase.***
19. **PENALTY FOR DELAYED DELIVERY:** The date of delivery should be strictly adhered to. In the event of delayed delivery, installation & commissioning, the vendor shall be liable for a penalty deduction as per prevailing rule
20. Demonstration may be sought from the vendors for authentication of quoted specification.
21. The University is exempted from paying Custom and Excise duty.
22. Warranty/Guarantee period should be specifically mentioned in the quotation.
23. No Advance payment will be made. However, for foreign supplies, advance payment will be made either by LoC. In such cases 10% Performance Bank Guarantee should be submitted before opening of the LoC.
24. Items of Foreign origin should have Insurance up to installation on site.
25. The University reserves the right to accept or reject any or all the quotations without assigning any reason.
26. Irresponsive/incomplete quote will be rejected.
27. **Award:** The Final Award will be given to the vendor, selected by the Purchase Committee on the lowest quote basis.
28. **Conditional tenders not acceptable:** All the terms and conditions mentioned herein must be strictly adhered to by all the vendors. Conditional tenders shall not be accepted on any ground and

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shall be rejected straightway. Printed conditions mentioned in the tender bids submitted by vendors will not be binding on Tezpur University.

29. Enquiry during the course of evaluation not allowed: No enquiry shall be made by the bidder(s) during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the Purchase Committee or its authorized representative (Tezpur University) can make any enquiry/seek clarification from the bidders. In such a situation, the agency shall extend full co-operation. The bidders may also be asked to arrange demonstration of the offered items, in a short period notice, as such the bidders have to be ready for the same.

30. Force Majeure:

If the performance of the obligation of either party is rendered commercially impossible by any of the events hereafter mentioned that party shall be under no obligation to perform the agreement under order after giving notice of 15 days from the date of such an event in writing to the other party, and the events referred to are as follows:

- I) any law, statute or ordinance, order action or regulations of the Government of India,
- II) Any kind of natural disaster, and
- III) Strikes acts of the Public enemy, war, insurrections, riots, lockouts, sabotage.

Termination for default: Default is said to have occurred

- a. If the equipment or any of its component is found having poor workmanship, faulty designs, poor performance and bad quality of materials used.
- b. If the supplier fails to deliver any or all of the services within the time period(s) specified in the purchase order or any extension thereof granted by Tezpur University.
- c. If the supplier fails to perform any other obligation(s) under the contract.
- d. Under the above circumstances Tezpur University may terminate the contract / purchase order in whole or in part and forfeit the EMD/PBG as applicable. In addition to above, Tezpur University may at its discretion also take the following actions: Tezpur University may procure, upon such terms and in such manner, as it deems appropriate, goods similar to the undelivered items/products and the defaulting supplier shall be liable to compensate Tezpur University for any extra expenditure involved towards goods and services obtained. Besides, the Vice-Chancellor, Tezpur University, reserves the right to impose any other form of penalty as deemed fit including blacklisting of the vendor.

31. Selection criteria:

Evaluation Criteria:

Technical criteria will be evaluated and ranked by the award of ACCEPT and/or REJECT. Only the ACCEPTED vendors will be considered for price bid. In case a joint venture makes a bid, any one of the members of the joint venture need to be qualified for each of the criteria mentioned below.

Eligibility Criteria:

- a. The bidder or the OEM should not be blacklisted by Tezpur University or any other Educational /R&D/ PSU/ Govt organizations. A certificate or undertaking to this effect must be submitted.

Note: The bidders should provide sufficient documentary evidence to support the eligibility criteria.

Technical Criteria

The bidder should provide the standard technical literature on the subject offered with dealership certificate of the offered product(s). The offers which do not meet the NIQ required technical specifications will be summarily rejected, from any further consideration. Technical bids will be evaluated and ranked by the award Accepted & Rejected. The price bids of Accepted vendors would then be considered by the concerned Purchase Committee of the institute.

32. ADDITIONAL TERMS FOR IMPORTED GOODS:

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Following additional terms will be applicable in case of foreign supply:

- a) **Rates:** Rates quoted should be on **DELIVERED DUTY PAID basis**, with break-ups as per details given in the BOQ,
 - b) **Exchange rate:** Rate of foreign exchange shall be the rate prevailing on the date of Purchase Committee Meeting.
 - c) While transshipment will be allowed, **part shipment will not be allowed.**
 - d) **Payment:** By an irrevocable Letter of Credit at CIF/CIP Kolkata value negotiable through any overseas branch of State Bank of India with unrestricted provision. 90% of payment will be released on receipt of the shipping document and balance 10% after receipt of consignment. LoC will be established on receipt of Order acknowledgment, Proforma Invoice and Performance Bank Guarantee (PBG).
 - e) **Agency Commission:** The percentage of ex-works value to be paid to Indian agent in equivalent Indian currency as agency commission as applicable if any will have to be clearly stated in the quotation.
 - f) **Country of Origin:** While Country of Origin will have to be stated in the Original Invoice for payment through LoC.
 - g) **LoC Amendment:** LoC amendment charges due to mistake on the part of the supplier, if any, will have to be borne by the supplier.
33. Applications for release of EMD should be submitted to the Registrar/ Joint Registrar-GA/Assistant Registrar-GA, Tezpur University.
34. Apart from the above terms and conditions the University has the right to include any other terms and conditions as and when felt necessary.

INSTRUCTIONS TO BIDDERS FOR ONLINE BID SUBMISSION

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at <http://eprocure.gov.in/eprocure/app>

1. Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the agencies/bidders on the e-Procurement/e-tender portal is a prerequisite for e-tendering.
2. Bidder should do the enrollment in the e-Procurement site using the "Online Bidder Enrollment" option available on the home page. Portal enrollment is generally free of charge. During enrollment/registration, the bidders should provide the correct/true information including valid email id. All the correspondence shall be made directly with the agency/bidder through email id provided.
3. Bidder need to login to the site through their user ID/ password chosen during enrollment/registration.
4. Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/eMudra or any Certifying Authority recognized by CCA India on eToken/SmartCard, should be registered.
5. The DSC that is registered only should be used by the bidder and should ensure safety of the same.
6. Agency/Bidder may go through the tenders published on the site and download the required tender documents/schedules for the tenders he/she is interested.
7. After downloading / getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise bid will be rejected.
8. If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account the corrigendum published before submitting the bids online.
9. Bidder then logs in to the site through the secured log in by giving the user id/ password chosen during enrolment/registration and then by giving the password of e-Token/Smartcard to access DSC.
10. Bidder selects the tender which he/she is interested in by using the search option & then moves it to the 'my tenders' folder.

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11. From my tender folder, he selects the tender to view all the details indicated.
12. It is construed that the bidder has read all the terms and conditions before submitting their offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected.
13. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender documents/schedule and generally, they can be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, they can be clubbed together and can be provided in the requested format. Bidders Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through rar and the same can be uploaded, if permitted. However, if the file size is less than 1 MB the transaction uploading time will be very fast.
14. If there are any clarifications, this may be obtained through the site. Bidder should take into account the corrigendum published from time to time before submitting the online bids.
15. The Bidders can update well in advance, the documents such as certificates, annual report details etc., under My Space option and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.
16. Bidder should submit the Tender Fee/EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission due date & time for the tender or as indicated in the tender. Scanned copy of the instrument should be uploaded as part of the offer.
17. While submitting the bids online, the bidder reads the terms & conditions and accepts the same to proceed further to submit the bid packets.
18. The bidder has to select the payment option as offline to pay the Tender Fee/EMD as applicable and enter details of the instruments.
19. The details of the DD/ any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise submitted bid will not be acceptable or liable for rejection.
20. The bidder has to digitally sign and upload the required bid documents one by one as indicated. Bidders to note that the very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation they have read all sections and pages of the bid document including General conditions of contract without any exception and have understood the entire document and are clear about the requirements of the tender requirements.
21. The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid will be rejected.
22. If the price bid format is provided in a spread sheet file like BoQ_xxxx.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Price-bid BOQ template must not be modified/replaced by the bidder; else the bid submitted is liable to be rejected for this tender.
23. The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock). The TIA will not be held responsible for any sort of delay or the difficulties faced during the submission of bid online by the bidders at the eleventh hour.
24. After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number, given by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and will also act as an entry pass to participate in the bid opening date.
25. The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
26. All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening.
27. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers' public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

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28. The confidentiality of the bids is maintained since the secured Socket Layer 128-bit encryption technology is used. Data storage encryption of sensitive fields is done.
29. The bidder should logout of the tendering system using the normal logout option available at the top right-hand corner and not by selecting the (X) exit option in the browser.
30. For any queries regarding e-tendering process, the bidders are requested to contact as provided in the tender document. Parallely for any further queries, the bidders are asked to contact over phone: 180030702232 or send a mail over to cppp-nic@nic.in.

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Assistant Registrar-GA
Tezpur University

Technical Specifications cum Compliance Report
(To be submitted on Company's/Firm's Letterhead Signed and Sealed)

Items: Powder X ray Diffractometer

Item	Technical Specifications	Complied (Yes/No)	Remarks, if any;
General	<p>The high resolution X-ray diffractometer system will be used for advanced material research of polycrystalline powder samples with provision for upgradation to characterize thin films.</p> <p>The system must combine horizontal sample mount X-ray diffractometer with theta-theta goniometer having the capability of high resolution scanning mode with fully automatic and knowledge based control system.</p> <p>The XRD system must have the capability to configure in different mode like high resolution X-ray Diffraction (HR-XRD), Grazing Incidence X-ray Diffraction (GIXRD), Small Angle X-ray Scattering (SAXS) and High Temperature experiments if required with suitable attachments and application software and the same attachments/software should be offered as optional.</p> <p>The software package must guide the user for the technique and know how to make advanced measurements. The package should guide for the best optical configuration for each application, check the hardware setting and run automatic alignment sequences.</p>		
Generator	<p>-Output power: 3 kW or higher.</p> <p>Stability: $\pm 0.01\%$ or better for 10% input voltage variation.</p> <p>-The system should have requisite cooling system-external chiller/heat exchanger etc. for smooth and stable running.</p> <p>-The system should be fully controlled through PC software. Proper protection mechanism against voltage fluctuation, overload, over voltage, over current etc. should be in place.</p>		
X-ray tube	<p>- Power: 2 kW or higher.</p> <p>-Ceramic insulated X-ray tube with copper anode and a long fine focus.</p> <p>-Facility to switch between line and point focus applications without disconnecting cables and utility lines or unscrewing the X-ray tube.</p>		

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Vertical Goniometer	<ul style="list-style-type: none"> - Goniometer should be vertical where the sample should be held horizontally during measurement. - 2 Theta measurement range should be -10 to + 160 degree or better along with capability to work in transmission mode. -Smallest addressable increment should be 0.0001 degree or better. -Minimum goniometer diameter of 570 mm or better. 		
Optics	<ul style="list-style-type: none"> -Computer controlled & programmable variable slits along with Soller slits for both incident and receiving side with automatic optical alignment without any manual intervention. -Computer controlled automatic attenuator. -All optical components and sample stages should support quick change over from one configuration to another. 		
Detector	<ul style="list-style-type: none"> -Solid state high speed detector with minimum 200 channels/semiconductor strips or more with ability to operate both in 1D and 0D mode without any change in hardware. -The same detector must also work in normal mode or in fluorescence reduction mode. -Efficiency of the detector must be >98% for Cu radiation with a minimum spatial resolution of 75 micrometer. - >2.5 degree 2Theta angular coverage at 500 mm measurement circle diameter on both X & Y direction - Minimum global count rate of 100,000,000 cps or better. - Suitable hardware and software for suppressing secondary fluorescence to be offered. - Detector should be capable to collect high quality data starting at angles as low as 0.15 degree 2Theta. 		
Sample Holder	<ul style="list-style-type: none"> - Aluminum sample holders [set of 20], glass sample holder, 0.2 mm depression [set of 20], glass sample holder, 0.5 mm depression [set of 20], SRM 640e NIST standard sample Si powder have to be offered - One set (Minimum 2 nos.) of Si low background sample holder is to be included. 		

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Software	<p>-PC based original software packages for XRD instrument control, system diagnosis software, data collection software to be offered.</p> <p>-Software should enable both qualitative and semi quantitative analysis based on Rietveld method. Automatic refinement/smoothing of measured data, peak search, integrated intensity facility should be available. All upgrades of the software will be made available for five years after installation free of cost.</p>		
Data station	<p>One branded desktop computer, processor Intel core i7 @ 3.40GHz Ram 16 GB , Memory 1TB Screen 23 inch or more DVD writer drive , keyboard and mouse with laser jet multifunctional printer with high speed USB, wireless connect , and speed up to 26 pages per minute. Toner cartridge with capacity of 1200 pages or more. Operating system should be compatible to the quoted software. Vendor may also quote all in one desktop with the same specifications.</p>		
Remote diagnostics	<p>Full function remote diagnostic should be possible for first level trouble shooting and support</p>		
Power supply	<p>Operation power supply 220V, 50/60Hz as par Indian standard.</p>		
Training (Hardware and software)	<p>Training to be divided in two parts, two weeks training at the time of installation and two weeks training after three month of successfully installation of the system at the user place. The vendor should provide the training for the operation, software, handling of optics, x-ray tube, detector and maintenance at the site of installation. Training should also include analysis demonstration of real samples, change of optics, equipment configuration, change of sample stages and other features of the equipments. Complete functioning of the system to be demonstrated.</p>		
Database	<p>ICDD database of latest version</p>		
UPS	<p>Appropriate 15 KVA UPS cum stabilizer with at least 60 min backup must be supplied</p>		
Safety Features	<p>The XRD system must be fully radiation protected as per the international radiation safety norms. The offered XRD system must comply with the requirements of the Machinery Directive 2006/42/EC for European Manufacturer or equivalent norm for non European Manufacturer. The safety feature must include the following</p> <ul style="list-style-type: none"> • RADIATION ENCLOSURE: Open & Close Door 		

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	<p>System (with a Pb-contained Acrylic Resin Windows)</p> <ul style="list-style-type: none"> • Lead equivalent: 0.5mm Pb equivalent. • Fail Safe Function: With a CPU Controlled function. • Warning Light: Installed independently on the top of the Radiation Enclosure. • Detection of abnormal cooling water (level, temperature, pressure). • Detection of abnormal XG over-load (output deviation, over-current). • Detection of abnormal tube voltage HIGH, LOW. • Must Include EMO switch (Emergency off switch) and earth leakage circuit breaker 		
Chiller Assembly	With capacity suited for smooth running of the XRD machine.		
Special Requirement	<p>As the XRD instrument is an expensive and advanced equipment, it is mandatory that the facility must be multiple-user specific. Also, it is important that the equipment is stable and run for a long run time. Thus it is important for the vendors that they must supply appropriate documents specifying their users in higher academic institutions in India. Appropriate certificates from the users must be supplied justifying the stability, ease of operation and maintenance requirement such that we have the option to choose the best system in terms of performance and not mere specifications alone.</p> <p>Further, as the instrument is expensive and multi user equipment, One year standard warranty for PXRD instrument as well as all accessories supplied along with the instrument is a must and this must be specifically mentioned in the quotation by the vendor/ principal. In case, the vendor provides the warranty, the principal should certify (authenticate). Appropriate documents must be attached along with the quotation in this regard.</p> <p>A certificate will be required from the original instrument manufacturer that technical support along with all essential spares will be provided / made available for at least 10 years after the expiry of warranty period.</p>		
These accessories should be offered in "Optional"			
Multi-position sample holder	Auto sampler with minimum 6-(Six) position sample loading with independent programming and rotation for each sample.		

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Sample Stage for Thin Film	Automatic sample stage which should be included with auto alignment for auto Z- axis alignment for height adjustment , ϕ -(Phi) axis for free rotation and χ -(Chi) axis for tilting of sample with automatic alignment procedure for measurement of thickness, density and roughness(XRR) of thin film sample using reflectivity software. The basic high resolution thin film attachment should include incident 2-bounce Ge (220)- channel cut monochromator to remove $K\alpha_2$ doublet which should be offered		
High Temperature Stage	Suitable High Temperature Attachment for powder sample should be offered to do experiment at non-ambient condition. The High Temperature Attachment should be capable of attaining temperature from ambient to 1500°C or higher. The attachment must include automatic Programming Temperature controller and necessary vacuum pump & other necessary hardware.		
SAXS Sample stage	SAXS Unit for Particle and Pore Size Distribution of both solid & liquid samples with measuring range from 0.1 to 5° . It must include SAXS unit with Vacuum Path and suitable nano material software for particle size ranging from 1nm to 100nm or more. Suitable software for pore size and distribution analysis and long periodicity analysis should be included. Capillary spinner with capillary tube with different dimension should be included.		

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