
	सामग्री प्रबंधन अनुभाग भारतीय प्रौद्योगिकी संस्थान, रुडकी रुडकी-247667, हरिद्वार, उत्तराखण्ड, भारत Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	Material Management Section Indian Institute of Technology Roorkee-247667(Haridwar) (Uttarakhand) (India) Phone-(O) 01332-28-4293, 4693 E-mail: mmiitr@iitr.ac.in	
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	PAN-AAALI0033R		

निविदा प्रलेख / Tender Document

No. 1100001765/MM-23/IITR/2020-21/High Intensity X-ray Diff/IIC/164

Date of Uploading of Tender -<https://eprocure.gov.in/eprocure/app>

14-Oct-2020

Bids under two bid systems (Technical and Commercial) are invited Online at CPP Portal (<https://eprocure.gov.in/eprocure/app>) from the reputed manufacturer/authorized supplier/dealer for the following items (Through Buy-back purchase). **Manual bids will not be accepted.**

वस्तु की तकनीकी विषिष्टताये / Technical Specifications of item:

Sr. No	Name of item / Specifications	QTY	UOM
1	High Intensity X-ray Diffraction Facility for Macromolecular Crystallography with accessories	1	set
(For Detailed Technical Specification of required item Plz refer Annexure-V)			
Items Available for Buy-Back			
1	Xray Diffraction Facility for Macromolecular crystallography (Make: Bruker, Model: MicroStar H)	1	Set
(For Detail of buy-back item Plz see Annexure-V)			
नोट-1: कृपया वस्तु का मूल्य एवं कर अलग-अलग दर्शाए।			
Note-1: Please quote the Rate & Taxes of the item separately for both i.e. Required & Buy-Back items.			
Note-2: E-way bill is to be issued by the Venders/Transporter			
Note-3: The HSN / SAC Code of the item must be mentioned.			
For Reasonability of Rates, The firm must enclose the last two supply orders for the same item with Financial Bid (Annexure-III) only.			
Critical Date Sheet			
1	Published Date	15-Oct-2020	(10:00)
2	Bid Document Download / Sale Start Date	15-Oct-2020	(11:00)
3	Seek Clarification Start Date	15-Oct-2020	(12:00)
4	Seek Clarification End Date	22-Oct-2020	(16:00)
5	Pre Bid Meeting Date	Not required	Not required
6	Bid Submission Start Date	26-Oct-2020	(10:00)
7	Bid Submission End Date	5-Nov-2020	(17:00)
8	Bid Opening Date	6-Nov-2020	(12:00)

Chapter-1 : Instruction to bidders

- A. The Tender should be enclosed with proper certifications like Agency Certification, Authorization certificate and/or Proprietary Certificate, as the case may be, in support of your offer.
- B. बोली का जमा किया जाना / **Submission of Bids:**
- The bids should be submitted online in two parts –**
- 1 **(i) The Technical Bid (Annexure-I, II & V) with EMD and Tender Acceptance Letter**
(ii) The Financial Bid (Annexure-III) & Price Bid in .XLS Format
- Rates in .xls format will only be considered for Financial evaluation.**
- 2 The bids should be on official pad preferably with GST Number of the firm
- 3 The quotations should bear full details and where possible may be duly supported with catalogues, pamphlets, literature, samples of the item/items as the case may be for comparing the quality and rates of the item(s).
- 4 The transportation cost, insurance charge etc., if any, percentage/ rate of GST or all other taxes and duties should be clearly mentioned.
- 5 The bids / rates / tenders should remain valid for a minimum period of 90 days from the date of opening.
- 6 **Since this purchase being for research purpose, I.I.T., Roorkee is registered in DSIR, New Delhi, it is therefore exempted from the payment of GST up to the limit of exemption as per Govt. Rules. The bidder should quote accordingly.**
- 7 The rates shall not be subject to escalation of any nature.
- 8 The rates quoted should be applicable to educational institutions and any cost advantage received in lieu thereof should be passed on the Institution.
- 9 While quoting / sending rates, the firm shall give an undertaking as per Annexure-II.

C. **विधि निक्षेप / Earnest Money Deposit (EMD):**

The Technical Bid should accompany an EMD of value Rs. 9,00,000/-(Rupees Three Lac only) which should be deposited online into below mentioned account.

Details of IIT Roorkee Bank Account:

Account Name: NON MHRD GOVERNMENT FUND IIT ROORKEE

Account No.: 00000032685865515

Bank Name: STATE BANK OF INDIA

Branch Address: IIT ROORKEE, ROORKEE

The Bidder will have to fill EMD details & provide the tender reference number in the narration/remarks while doing the payment as per quoted items and share the receipt of the same in pdf on CPP Portal (<https://eprocure.gov.in/eprocure/app>). The qualification in Technical bid will be subject to the submission of EMD in above mentioned account within schedule date and time as mentioned in the NIT. IITR shall not be responsible for any delay in submission of EMD.

In case the EMD is not received in above mentioned account within the aforesaid period i.e. before bid opening date & time as mentioned in NIT, the bid will be out rightly rejected.

Exemption on submission of EMD will be given against valid MSME/NSIC certificate under valid category.

The earnest money shall be refunded to all the unsuccessful firms, without any interest after finalization of the contract.

EMD shall be refunded to the successful firms on receipt of PBG/Security Deposit. No interest is payable on the EMD to either the successful firms or the unsuccessful firms.

D. **निष्पादन बैंक प्रत्याभूति / Performance Bank Guarantee (PBG):**

In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted.

E. **बोलियों का खोला जाना / Opening of Bids:**

- 1 The Technical Bids will be opened online at CPPP Portal (<https://eprocure.gov.in/eprocure/app>)-**Plz refer Critical Date Sheet**
- 2 The Financial bids of only the Technically Qualified bidders will be opened. The date and time for opening the Financial Bid will be communicated to the respective firm later by the system (CPP Portal (<https://eprocure.gov.in/eprocure/app>))

3 Representatives of the firms(s) may be present at the time of openings, if they so desire.

Chapter-2 : Conditions of Contract

- F.** टेका देना / Award of Contract:
The final selection of the bidder for the award of the contract will be made on the basis of the lowest commercial bid amongst the Technically Qualified Bidders.
- G.** पूर्व-आपूर्ति निरीक्षण / Pre-supply Inspection:
Authorized representative of the Institute shall make the final inspection before supply of the item at site of the firm, if required.
- H.** वस्तु की आपूर्ति / Supply of Item:
The whole supply as per order shall have to be completed within the time mentioned in the order failing which the I.I.T. Roorkee shall have the right to accept or reject any quantity of items ordered. The firm will have to arrange for supply of the material in good condition.
- I.** **भुगतान की शर्तें / Payment Terms:**
- A.** **Payment in INR for supply of goods:**
Where installation is not required: 100% payment will be made after satisfactory delivery of material duly certified by the HOD/P.I. **OR**
Where Installation is required :100% payment will be made after satisfactory delivery and installation of the material duly certified by the HOD/P.I. **OR**
80% payment will be made on receipt and acceptance of goods and balance 20% on successful installation and commissioning duly certified by the HOD/P.I. **OR**
100% Advance will be paid against submission of 110% Bank Guarantee of the Total Order value. Bank Guarantee should be in favor of "The Registrar, IIT Roorkee" which should be valid till the date of Installation/Delivery period + 30 days.
- B** **Payment in INR for AMC/Service:**
Quarterly/Halfyearly after satisfactory completion of work/service duly certified by the H.O.D./P.I.
- J.** **दंड/Penalty:**
A penalty of 0.5% of the total order value per week shall be levied for the delay subject to a maximum of 5% of the total order value.
In case of the non-supply of the item after the acceptance of the work/supply order, EMD will be forfeited by the Institute.
- K.** **अप्रत्याशित घटना/Force Majeure:**
For the purpose of and within the scope of contract by way of indication and not of limitation, the term "Force Majeure" shall mean acts of nature, strikes, Lockouts, or other industrial disturbances, act of public/enemy, wars, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms lightening, flood, washouts, civil disturbances, explosion and any other similar even not within the control of either party on which by exercise of due care and diligence neither party is able to prevent or overcome.
- L.** **मध्यस्थता / Arbitration:**
In the event of any difference or dispute arising out this work, all effort shall be made by both the parties to settle the same amicably. Failing an amicable settlement, the dispute shall be finally settled through arbitration conducted under the Arbitration and Conciliation Act 1996, by arbitrators appointed in accordance with the said Act. The arbitration shall give reasoned and speaking award. All disputes are subject to Roorkee jurisdiction only.
- M.** **बोली अस्वीकृती के लिए मानदंड / Criteria for bid rejection:**
- 1 If technical bid found without the required undertaking (Annexure-II).
 - 2 If it found at a later date that any information given in the bids is Incorrect/false then the bid is liable to be disqualified/rejected.
 - 3 Canvassing in any form will result to disqualification.
 - 4 If "extra, as actual" etc. are mentioned against any of the price components in the bid the bid will be rejected.
 - 5 If the firm quotes 'NIL' charges / consideration, the bid shall be treated as unresponsive and will not be considered.
 - 6 If financial bid is found along with technical bid in pdf on CPP Portal, then the bid shall be rejected outrightly.
 - 7 If any bidder submitting two/multiple bids for the same item of a tender, both/all the bids of that bidder will be outrightly rejected.

Chapter-3 : Schedules of requirements

- N.** **टिप्पणी / Note:**
- 1 If the supplier/firm is manufacturer/authorized dealer/sole distributor/of the item, the certificate to this effect should be attached.

- 2 Please note that the firms must submit the compliance Statement in an organized and structured manner in respect of all the specifications as per Annexure-V with the supporting catalogue/leaflet of the firm. Annexure-I, II & V have to be submitted with Technical Bid and Annexure-III with financial bid.
- 3 It may also be noted that the tender bids received after the stipulated date & time or found incomplete and the tender bids containing false/incorrect information shall be summarily rejected. The Institute shall not entertain any communication in this regard, whatsoever.
- 4 The firm is required to give its Bank Account details with IFSC for the purpose of making e-payment.
- 5 The Indian Institute of Technology (IIT) Roorkee reserves the right to reject any quotation wholly or partly without assigning any reason.
- 6 The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
- 7 The decision of the institute in all matters relating to eligibility, acceptance, rejection of the bid will be final and binding on the applicants.
- 8 IIT Roorkee discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
- 9 The firms should clearly mention (in the financial bid) the Harmonized System of Classification (HS code) defined by the Central Custom and Excise Board (Govt. of India)- for the item(s) involving import.
- 10 **If the bid opening date happens to be a holiday, then the bid will be opened at 3.30PM of the next working day followed by the holiday.**
- 11 If an agent submits bid on behalf of the Principal/OEM, the same agent can not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- 12 Indian Agent should submit the certificate from the Foreign Principal that they are the Authorized & Registered Indian Agent.
- 13 The quantity shown against the item is approximate and may vary as per demand of the Institute at the time of placing order. Also, the final requirement of each line item will be decided by the Institute at the time of placing the PO.
- 14 **Any corrigendum/addendum/errata in respect of the Tender Notice/ Enquiry letter shall be made available CPP Portal (<https://eprocure.gov.in/eprocure/app>). Hence prospective bidders are advised to visit the CPP Portal (<https://eprocure.gov.in/eprocure/app>) regularly.**
- 15 Bidders shall be responsible for the correctness of the information provided in the enquiry letter/tender document. If it is found at a later date that any information given in the bid is Incorrect/false then the bid is liable to be disqualified/rejected.
- 16 Before submission of bids, bidders should read the complete enquiry letter/tender document carefully and ensure that the bidders fulfill the eligibility criteria.
- 17 In case the item/product is under rate contract with DGS&D or GeM, then Bidder should certify that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.
- 18 **In Item Wise BoQ .xls sheet, In column M, leave blank for the item/service not provided/quoted by you. If quoted 0 then it will be considered that the item/service will be provided free of cost.**
- Or**
- In Item Rate BoQ .xls sheet, If quoted 0 for the items/services in column M then it will be considered that the items/services will be provided free of cost.**
- 19 **The Institute reserves the right to rectify any discrepancy of this advertisement, if found later on. In case of any inadvertent mistake in the process which may be detected at any stage even after the issue of purchase order, the Institute reserves the right to modify/withdraw/cancel any communication made to the bidder.**

Chapter-4 : Specifications and allied Technical details

Plz. See Annexure- I, II, V

Chapter-5 : Price Schedule (to be utilized by the bidders for quoting their prices online in .XLS format at CPPP Portal (<https://eprocure.gov.in/eprocure/app>))

Plz. See Annexure- III & Price Bid in .XLS Format

Chapter-6 : Contract Form

Purchase Order is used as Contract Form

Chapter-7 : Other Standard Forms, if any to be utilized by the purchaser and bidders

Tender Acceptance Letter

***उप कुलसचिव (सामग्री प्रबंधन) / सहायक कुलसचिव (सामग्री प्रबंधन)
Deputy Registrar (MM)/ Assistant Registrar (MM)**

***Document Digitally Signed on <https://eprocure.gov.in/eprocure/app>**

For any Clarification regarding technical specifications of item Please Contact:

**Prof. Ramesh Chndra, IIC, Ph.-01332-28-5743, 4350
Head, IIC, IIT Roorkee Email: ramesh.chandra@ic.iitr.ac.in
IIT Roorkee**

तकनीकी बोली
विस्तृत विवरण अनुपालन रिपोर्ट के साथ प्रस्तुत किया जाना है (अपने आधिकारिक लेटर हेड पर विक्रेता/फर्म द्वारा प्रस्तुत करने के लिए)

Detailed specification cum compliance report to be submitted with the Technical Bid
(to be submitted by the vendor/firm on its official letter head)

(For Detailed Technical Specification Plz refer Annexure-V)

Sr.No	Name & Required Specifications of Item(s)	Qty	UOM	Offered specifications of item(s) by the firm
1	High Intensity X-ray Diffraction Facility for Macromolecular Crystallography with accessories	1	set	
	Firm's Profile :			
1	Manufacturer/Authorized Agent/Distributor/Dealer/Supplier(valid certificate must be attached)			
2	E-mail I.D. & Telephone/Mobile No. Detail of Bank A/C			
Note:	1. "offered specifications", should be filled up properly in the format provided as per Annexure-I.			
	2. Volume & Weight of the item should also be mentioned.			
	3. The HSN / SAC Code of the item must be mentioned.			

Signature: _____

Name : _____

Designation : _____

Seal of the Organisation

उपबंध / UNDERTAKING

Ref. No. No. 1100001765/MM-23/IITR/2020-21/High Intensity X-ray Diff/IIC/164
Dated:- 14-Oct-20

That all the terms/conditions mentioned in the enquiry letter/tender against which the rates are being given are acceptable to the firm.

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

It is certified that the firm has never been black-listed from any Government Department. (State/Central Govt./ Autonomous/ PSU)

Signature_____

Name_____

Financial Bid

(to be submitted by the vendor/firm on its official letter head)

Ref. No. No. 1100001765/MM-23/IITR/2020-21/High Intensity X-ray Diff/IIC/164
Date: 14-Oct-20

Rates :

A	Rate of Required item	Qty	UOM	Rate	Amount (INR) Or In Other Currency
					To be filled in .XLS sheet (attached)
Total					To be filled in .XLS sheet (attached)
Sub Total Rs.					
B	Rate of Buy-back item	Qty	UOM	Rate	
					To be filled in .XLS sheet (attached)
Total					To be filled in .XLS sheet (attached)
Grand Total (A-B) Rs.					

1) Price of the items should be clearly mentioned if supplied Free of Cost.

Terms & Conditions:

- 1 Prices (if quoted in Rs.): FOR IIC,
IIT Roorkee
- 2 **Payment:** **Should be clearly mentioned, As per clause-I of enquiry letter.**
- 3 Validity:
- 4 Delivery period:
- 5 Other charges:
- 6 **Warranty:**
- 7 Rejection: Equipment if found not as per the required specification would be rejected.
- 8 Penalty Clause: As per clause-J of enquiry letter.
In case of the non-supply of the item after the acceptance of the work/supply order, EMD will be forfeited by the Institute.
- 9 PBG: In case the total order value of items becomes Rs.25.00 Lakhs or above, 5% of the order value in the form of Bank Guarantee or FDR pledged in favor of "The Registrar, IIT Roorkee" is required at the time of installation of the equipment which should remain valid at least during the warranty period plus sixty days. No interest shall be claimed by the bidder on the PBG submitted.
- 10 GST Exemption Certificate will be provided by the Institute (if required).

It is certified that the rate quoted is not over and above (higher side) the rates under RC with the DGS&D or GeM.

Signature _____
Name _____
Designation _____
Seal Of the Firm/Organization _____

Details of Institute :

IEC CODE	0100000011	
AD CODE	0001069-2770325	S.B.I., IIT ROORKEE
	0303974-2770324	P.N.B. IIT ROORKEE

Instructions for Online Bid Submission

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

- 1 Possession of valid Digital Signature Certificate (DSC) and enrollment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for etendering.
- 2 Bidder should register for 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 only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.
- 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/nCode/eMudra etc. recognized by Controller of Certifying Authorities (CCA) India on eToken/SmartCard, should be registered.
- 5 The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.
- 6 Contractor/Bidder may go through the tenders published on the site and download the tender documents/ schedules for the tenders.
- 7 After downloading/getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.
- 8 Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting if any. Bidder should take into account the corrigendum if any published before submitting the bids online.
- 9 Bidder may log in to the site through the secured login by the user id/ password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.
- 10 Bidder may select the tender in which he/she is interested in by using the search option and then move it to the 'my tenders' folder.
- 11 From my tender folder, he may select the tender to view all the details uploaded there.
- 12 It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.
- 13 Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/ schedule and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and 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 zip/rar and the same if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.
- 14 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.
- 15 Bidder should submit the Tender Fee/ EMD as specified in the tender. Scanned copy of the same should be uploaded as part of the offer.
- 16 While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.
- 17 The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the same.
- 18 The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection. (If applicable)
- 19 The bidder has to digitally sign and upload the required bid documents one by one as indicated. Every act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have read, understood and agreed with all clauses of the bid document including General conditions of contract without any exception.
- 20 The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.

- 21 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 Priced-bid/BOQ template shall not be modified / replaced by the bidder; else the bid submitted is liable to be rejected for the tender.
- 22 The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission due date and time (as per Server System Clock). The TIA shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.
- 23 After the bid submission (i.e. after Clicking "Freeze Bid Submission" in the portal), the acknowledgement number indicated 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 also be used as entry pass to participate in the bid opening.
- 24 The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e- Tender system. The bidders should follow such time during bid submission.
- 25 All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.
- 26 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.
- 27 The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 28 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.
- 29 For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Parallely for any further queries, the bidders are advised to contact over phone: **0120-4001005** or send an e-mail to – cppp-nic@nic.in.

Prequalification

- 1 An undertaking by the firm that it has never been black-listed must be attached along with the Bid, failing which the Bid shall be rejected. (As per Annexure-II)
- 3 True copy of Permanent Account Number.
- 4 Details of GST along with a copy of certificate to be attached.
- 5 Submission of samples if required, for all items indicated in the NIT. The make of items proposed to be supplied should be indicated and submitted along with the techno commercial unpriced bid without indicating the pricing components.
- 6 Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the tender document are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

Tender Acceptance Letter
(To be given on Company Letter Head)

Date:

Sub: Acceptance of Terms & Conditions of Tender.

Tender No. 1100001765/MM-23/IITR/2020-21/High Intensity X-ray Diff/IIC/164

Tender description:

Dear Sir,

- 1 I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender No.' from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).
- 2 I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.
- 3 The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.
- 4 I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.
- 5 In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

S. No.	Item description	Quantity
1)	High Intensity X-Ray Diffraction Facility for Macromolecular Crystallography with accessories [Specifications Sr. No. 1 to 14 as per Annexure A-1]	01
	Optional Items:	
1)	Vibration-free crystallization chamber with humidity control (Minimum 230 L or better)	01
2)	A crystallization robot: This should have the capability of high speed and accuracy with minimum cross-contamination	01
3)	High-end work station for offline data analysis with UHD display monitor and stereo enabled, with Min. 2 GPU 2920X (12 Cores/24 Threads or better) 4 GHz or better, 38 MB Cache Motherboard 128 GB (8x16) RAM @2666 MHz 1 x 2 TB SSD or better. 1 x 4 TB HOD SA TA@7200 RPM or better, NVidia GTX 1640 or better power, 27" UHD Monitor including speakers and inbuilt Wi-Fi	01
4)	Crystal Screen Optimization Liquid Handler robot	01
5)	In-situ crystallization plate screening mount for the Goniometer	01

Ramali

AS
Dhandy
Kallu

Technical Specifications of High Intensity X-Ray Diffraction Facility for Macromolecular Crystallography:

Sl. No.	All reputed manufacturers and their authorized vendors are requested to participate to supply the instrument as per below specification or better.
1	<p>X-ray generator Technical Specifications: Source type: Rotating anode or Liquid Metal X-Ray source Effective focal size: Not more than 100 μm at the crystal position Brilliance: Should be equal to or higher than 8×10^{10} Xray photons/mm^2/Sec for the optimal wavelength (with appropriate optics) with a divergence of less than 5mili Radians. Number of shutters: Two high-speed rotary shutters (There should not be any reduction in beam flux when operated with both shutters on) Number of ports available: 2 Target: Cu or Ga Note: One additional anode rebuild with the system and one additional TMP with controller and dry backing pump to be supplied</p>
2	<p>Optical System (X-RAY OPTICS) Technical Specifications: Spectral Purity: >99% for the optimal wavelength Divergence, mrad: Better than 5mR System should have software controlled fully automated divergence slit. Continuously variable divergence slit to optimize data collection for long unit cells. Beam alignment kit including PIN diode should be provided.</p>
3	<p>Goniometer Technical Specifications: Type: Kappa, 4-axis goniometer or one axis (desktop beamline type) Movement of ϕ, ω, χ, 2θ and the crystal-to-detector distance should Motorized. (In case of desktop beamline type vertical 2θ, χ and the crystal-to-detector distance must be motorized) Crystal-to-detector distance: Minimum of 35mm to Maximum of 250mm or better Compatible with in situ plate screening Sample illumination unit must be supplied. Goniometer must be compatible with automated crystal centering with the control software</p>
4	<p>Video system for crystal viewing Technical Specifications: Color CCD camera with lens system LCD monitor for crystal display Video crosshair generator LED illumination HD Video quality 10x Magnification</p>
5	<p>Detector Technical Specifications: Type: Hybrid photon-counting pixel-array detector.</p>

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	<p>Should convert X-ray directly to electrons without any intermediate step. The detector should require minimal maintenance and should be usable at room temperature.</p> <p>Active Area: Minimum of the order of 75x75 mm or more.</p> <p>Should be tuned to Cu or Ga K alpha radiation (Whichever is quoted)</p> <p>Readout time: continuous readout with less than 10ms (Must be suitable for shutter-less data collection)</p> <p>Dead time: 15 μs or better</p> <p>Point-spread function: 1 pixel</p> <p>Module cooling: Water or air cooling</p> <p>Pixel size: 100 μm x 100 μm or better</p>
6	<p>Cryo-System</p> <p>Technical Specifications:</p> <p>Available temperature range: 100K to 400 K or better</p> <p>Liquid nitrogen consumption: 0.6 liters/hour at 5 liters/minute gas flow, 1.2 liters/hour at 10 liters/minute gas flow</p> <p>Temperature stability: 0.1K</p> <p>Cool downtime to 100 Kelvin: 20 minutes or less than that</p> <p>Auto pressure regulation: Must be there</p> <p>Line dryer units: 2 Nos.</p> <p>Must include Cryo-stream Controller, Gas Pump, magnetic auto-refill system and Dry Air Unit</p> <p>Connecting hose to 150 L to 60 L and 60L to X-ray system: 2 Nos. each</p> <p><u>N₂ dewars:</u></p> <p>Dewar vessel for Cryo system capacity 60L: 1 Nos.</p> <p>And 150 L dewar with auto refill: 1 Nos.</p>
7	<p>Table and Cabinet to install the detector and goniometer</p> <p>The tabletop cabinet should be compatible with the radiation safety norms and should enclose a single port. Enclosure doors must contain locks to ensure safety and must be linked to the shutter</p>
8	<p>Water chiller</p> <p>Technical Specifications:</p> <p>Must be compatible with the X-ray generator and Detector Temperature control: plus/minus 0.1 degrees.</p>
9	<p>40 KVA (2 Nos. in parallel configuration) UPS for the entire system</p> <p>Technical Specifications:</p> <p>Suitable UPS with a minimum of 60 minutes of battery backup must be supplied (battery included)</p>
10	<p>PC to control detector and goniometer</p> <p>Technical Specifications:</p> <p>Monitor: min 24 inch LED</p> <p>RAM: 64 GB</p> <p>Processor: 6 cores with 3.3 GHz clock speed</p> <p>Video RAM: 8 GB</p> <p>Hard-drive: ~8 TB</p> <p>DVD reader and writer, USB, HDMI and other latest option to read and write</p> <p>Operating system: Windows 10 professional with 64 bits</p> <ol style="list-style-type: none"> Multi-purpose (with scanner) Laser color printer In addition to data collection computer, Min 64 GB RAM and 8 TB hard drive and 27" HD graphics display monitor with Stereo enabled

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	<p>workstation for structure solution, refinement, and model building with similar specifications as for data collection with suitable stereo glass</p> <p>c. Software to run the goniometer and detector</p> <p>d. Data collection and data processing software for small molecule and protein crystallography. Automatic strategy determination and integration. Should be easy-to-use with graphical user interface. The software should operable under fully automatic, semi-automatic or manual control.</p>
11	<p>Other Accessories and consumables</p> <p>a. Siliconized Coverslips 18mm dia: 50 boxes</p> <p>b. Vial holder for Steel dewar: 1 Nos.</p> <p>c. Seed Bead Ceramic kit: 1 Nos.</p> <p>d. Uni-Pucks starter Kit: 1 Nos.</p> <p>e. Kenester for uni-pucks: 1 Nos.</p> <p>f. Crystal mountings kit for cryo cooling: 1 Nos.</p> <p>g. Dry shipper with case and sample exchanger kit: 1 Nos.</p> <p>h. Cryo Mount set 0.02 mm: 50 Nos.</p> <p>i. Cryo Mount set 0.04 mm: 50 Nos.</p> <p>j. Cryo Mount set 0.08 mm: 50 Nos.</p> <p>k. Cryo Mount set 0.1 mm: 50 Nos.</p> <p>l. Cryo Mount set 0.2mm: 50 Nos.</p> <p>m. Cryo Mount set 0.3mm: 50 Nos.</p> <p>n. Cryo Mount set 0.4mm: 50 Nos.</p> <p>o. Cryo Sleeve 5 vial holder: 50 Nos.</p> <p>p. Pre greased VDX 24 well plate with 18mm dia: 200 Nos.</p> <p>q. 96 well clear polystyrene plates: 200 Nos.</p> <p>r. 96 well plate seal for Hanging drop: 200 Nos.</p> <p>s. 96 well plates for sitting drop: 200 Nos.</p> <p>t. One set of commercial screens of each type</p> <p>u. Electronic pipette (0.5 -10 ul): 02 Nos.</p> <p>v. Multichannel pipette (0.5 -10 ul): 04 Nos.</p>
12	Power Supply – Single phase or three phase as per Indian power supply.
13	Polarizing optical stereomicroscope with reasonable objectives to facilitate the mounting of micron level crystals. LED LAMP without Shutter and 10X eyepiece. A HD color camera with a minimum 5 megapixel resolution or better.
14	<p>Warranty- 5 years (from OEM) from the date of installation.</p> <p>Note: All the consumables related to running the X-ray facility (including filaments and rebuild of anode and logistics etc.) for 5 years should be provided by the supplier.</p>

Terms and conditions:

1. List of installations for the complete system (X-ray source, detector and cryo-stream) from National and International Institutes must be provided.

2. WARRANTY PERIOD: The equipment (including all spares and accessories) should **have 5 Years warranty** from the date of complete installation (Ready to use in all respects). The end of life X-ray diffraction components of models/components offered shall be no less than 15 years from the date of installation. In case of software's, the validity of the license key should be clearly mentioned and

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should have user define provision with option to switch over from one system to other system of within the validity period.

3. **Software Updates:** The selected firm for the supply of tendered item should provide free updates of software up to **15 years** from the date of the complete installation.

4. **POST WARRANTY COMPREHENSIVE MAINTENANCE CONTRACT (CMC):** The post-warranty (after 5 years) CMC should be quoted for spares and labour for the complete system which includes all the accessories supplied. Moreover, the CMC should cover software updates/upgrades (i.e. 15 years including the first 5yrs CMC period). The software licence should be perpetual (i.e. even after 15 years, software shall be used without any additional charges). All local items should be quoted in Indian Rupees. Other items should be quoted in respective foreign currencies; however, conversion of foreign currency into rupees is to be done taking into account the B.C. Selling rate of State Bank of India on the date of opening of price bid. The technical and financial bids should be separately sealed in distinct envelopes and clearly marked. **THE PRICE COMPARISON SHALL BE MADE TAKING INTO ACCOUNT BASE PRICE AND CMC OF 5 YEARS WARRANTY.**

5. The quoted equipment should be of International standards and examples of successful installations in India for each of the components should be provided.

6. **UP TIME GUARANTEE:** The firm should provide uptime guarantee of 95%.

7. **Downtime penalty Clause:** During the Guarantee/warranty period, desired uptime of 95% of 365 days (24 h) is required i.e. from the day of successful handing over of the whole complex. The total downtime annually for any reason/involvement of any of the components cannot exceed 5% (all inclusive). If downtime is more than 5%, the institute shall be entitled to impose penalty in the form of extended warranty period equal to twice the downtime period. The vendor must undertake to supply all spares for optimal upkeep of the equipment for at least FIVE YEARS after handing over the unit to the Centre. If accessories/other attachments of the system are procured from the third party, then the vendor must produce cost of accessory/other attachment and the CAMC from the third party separately along with the main offer and the third party will have to sign the CAMC with the Institute if required. The company takes the responsibility for the functioning of all the components and equipment, including the third party items supplied and included in the project.

8. **SPARE PARTS:** An optional separate price list of all spare-parts, accessories and consumables, (Including minor) required for running, maintenance and repairs in future after guarantee/warranty period must be attached/enclosed along with the Financial Bid. If any spares & accessories other than the price list attached/enclosed by the firm are required for future repair it will be borne by the firm only.

Supply of spares should be guaranteed for a minimum period of 15 years from the date of supply or from the date of cessation of production of the model for 15 years, whichever is later, at the rates prevailing against payment.

9. **BUYBACK: X-ray-diffraction facility for macromolecular crystallography (Make: Bruker, Model: MicroStar H) and its accessories was procured at IIT Roorkee in 2008. The vendor should include a bid for the buyback of the existing X-ray-diffraction facility for macromolecular crystallography.**