

# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान बरहमपुर

Indian Institute of Science Education and Research Berhampur Established by the Ministry of Education, Govt. of India

#### **NOTICE INVITING TENDER**

Indian Institute of Science Education and Research (IISER) Berhampur, is an autonomous Institute established under Ministry of Education, Department of Higher Education, Government of India.

Electronic Tenders are invited only from the Indian manufacturers and or their authorized dealers/ distributers of Indian origin for supply of 500MHZ NMR manufactured wholly in India only for use in the IISER Berhampur as per the quantities indicated in the section IV – Schedule of Requirement. The bidder/manufacturer/supplier/authorized dealer/distributor should an Indian and has to adhere to the specification, quality, make in India policy of Government of India and other terms & conditions mentioned herein this NIT document, being issued after the pre-bid meeting, LOA and the POs. The potential bidders are required to visit the website <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a> for submission of tender Section - I: Invitation for Bid

NIT No. & Da	ate	IISERBpr/S&P/2024-25/26 Dt. July 02, 2024			
Brief Description of the item to be procured		Supply, Installation, Testing and Commissioning of 500 MHz NMR Spectrometer and Accessories.			
Quantity		01			
Bid Estimate		Rs. 6,00,00,000/-			
Tender Cate	gory:	Goods			
Tender Type	:	OPEN (ADVT.)			
Number of C	overs:	TWO BID			
Covers Inforr	mation / Sub	omission of Bids			
Covers No. (	Cover Type	Description	Document Type		
1.	Technical	Technical Specification, Tender Document duly signed and stamped on each page, EMD, Schedule of Requirement and Compliance, Bidders Information/Indian Agent Information, Integrity Pact for more than Rs. 1 Crores, Purchase order copies, and all other formats available in tender documents duly completed in all respects.	online and Scanned copies to be uploaded		
2. Two Rid Syst	Financial	Financial Bid	To be filled online		

Two Bid System:

Part - I: Techno-Commercial Bid.

Part - II: Price Bid.

The prices should be shown against each item for the purpose of Insurance claims / replacements if any in a separate sheet and price should be quoted in price bid for whole equipment as specified in Annexure 1A of the tender document.

In case of any discrepancy in the rates indicated in the Price bid either in figures or words, the rates in words will be considered for evaluation.

. Note: The technical offer should not contain any price information. If the price quoted is submitted in technical bid the tender will be rejected at the sole discretion of IISER Berhampur.

Initially Technical Bids will be opened and evaluated by the purchase committee. Commercial bids of only Technically qualified bidders will be opened later.

Contract/ Purchase Order will be awarded to the lowest bidder(L1) among them.

Form of Contract:	SUPPLY, installation and commissioning

EMD Fee Details	Rs. 12,00,000/-
	should be deposited through SBI I-Collect only, through the web
	link: https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=644974
	https://www.onlinesbi.com/prelogin/icollecthome.htm?corpID=644974
Bid validity (Days):	90 days
3 3 3 4	
Period of Work/ Delivery	6 months after the release of purchase order.
Period (Days):	o monate and the release of parenase order.
` , ,	Tourish
Contract Type:	Tender
Pre-Bid meeting	July 15, 2024 at 16:00hrs (Transit campus, IISER Berhampur)
Delivery Location:	IISER Berhampur, Permanent Campus
Submission End Date &	July 30, 2024, 1500 Hrs
Time of submission	Can'y Co, 202
Place of Submission of	Through Online, https://www.gerpegov.com/IISERBP
Bid	Through Online, <u>Inters.//www.gerpegov.com/nockbr</u>
Bid Opening Date &	July 30, 2024, 15:45 Hrs
Time:	
Bid Opening Place:	Store & Purchase Section, IISER Berhampur, Transit Campus, Govt. ITI,
	Engineering School Road, Berhampur, Odisha - 760010
	Dr. Thirupathi Barla
For technical	E-mail: thirupathibarla@iiserbpr.ac.in
Clarifications please	
contact:	
Tender Inviting	Stores & Purchase Officer on behalf of Director, IISER Berhampur
Authority:	Tel. No.0680 2227-728/709
	E-mail: purchase@iiserbpr.ac.in
	- production and the second se

#### Other Terms and Conditions (Warranty):

<u>Pre-Qualification criteria</u>: - Bidders must have supplied identical item (same or similar) to other IISERs/IITs/Central Universities/research institutes etc., of national repute in the last three years. Copies of Purchase orders have to be submitted as evidence of supply. The bidders also have to submit certificates from the Institute authorities showing successful functioning of the identical equipment supplied to them for the last three years

<u>Warranty</u>: The warranty of the equipment will be as per the OEM product catalogue and the warranty clause indicated at Section IV of NIT, whichever is beneficial to the buyer (IISER Berhampur). Bidder shall note this requirement while quoting their rate

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Signing Authority:	Stores & Purchase Officer

#### **Section II: Instructions to Bidders**

#### 1. Preparation and Submission of offers.

- a) The tender shall be accepted only through online e-tendering process and all details pertaining to the tender and guidelines for e-tendering are available on the website <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a>
- b) Intending contractors needs to register themselves on the e-tendering website <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a> to get the USER ID and PASSWORD by paying required registration fee (Annual & Non-Refundable) through e-payment only and completing the steps specified on above referred website.
- c) Bid submission through any other mode will not be accepted. EXCEPT In case of Foreign Bidders without having Indian Agents can submit their e-bids without EMD by duly enclosing an undertaking to this effect on or before the date & time of submission of tender.
- d) All pages of the tender document shall be invariably signed by the authorized Personnel and Company's rubber stamp affixed. Photocopies of all certificates shall be self-attested by the authorized personnel. There shall be no corrections or overwriting in the tender document. Corrections, if any, should be made clearly and countersigned.
- e) Bidders must upload soft copies/scanned copies of all documents while uploading e-tender on the website. Submit hard copies of Challan generated on deposit of EMD through SBI I collect, Certificate and Declaration on non-judicial stamp paper, Security Deposit/ Performance Bank Guaranty.
- f) In a tender, either the Indian agent on behalf of the Principal / OEM or Principal / OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
- g) If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.
- h) IISER Berhampur discourages High Sea Sale purchase. All tenders with High Sea Sale will be rejected.
- i) It is mandatory for all Indian Agents to submit copy of Indian Agent Agreement / Authorization letter from OEM / OEMs along with <u>tender specific authorization from OEM</u>.
- j) It is mandatory for Indian Agents, Indian subsidiaries and Indigenous bidders to have GSTN Registration No. and should submit duly filled Bidders Information along with the tender document.
- 2. Validity of the Bid. 90 Days from the last date of submission of bid
- 3. <u>Cost of Bidding.</u> The Bidder shall bear all costs associated with the preparation and submission of its Bid and the Purchaser shall not be held responsible or liable for those costs incurred regardless of the conduct or outcome of the bidding process.

#### 4. Amendments to Tender Document.

- a) At any time prior to the deadline for submission of bids, IISER Berhampur may, for any justified reason, whether on its own initiative or in response to the clarification sought by a prospective BIDDER may modify the bid document by issuing necessary corrigendum.
- b) All prospective BIDDERs who have downloaded the tender document are requested to visit IISER Berhampur website for any amendments / modifications and make a note of the same, which will be binding on them.

5. <u>Deadline for Submission of Bids</u>. Bids must be submitted only through e-tendering mode on <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a> before the due date and time.

#### 6. Bid Opening Process.

- a) In case of one bid system, e-technical & e-financial bid will be opened simultaneously in the presence of representatives of the bidders at IISER Berhampur.
- b) In case of two bid system, The Technical Bid will be opened in the first instance in the presence of Dept. Technical Evaluation Committee(TEC), representatives of the bidders at IISER Berhampur.
- c) Financial bids of only those bidders, whose bids are found technically qualified, by the Technical Evaluation Committee, will be opened in the presence of the Dept. Technical Evaluation Committee(TEC) vendor's representatives subsequently at a later date for further evaluation. Date and Time of financial bid opening shall be intimated to technically qualified bidders only.
- d) One authorized representative of each of the bidder would be permitted to be present at the time of opening of the bids.
- e) The authorized representative of bidders, present at the time of opening of the bids shall be required to sign an attendance register as a proof of having attended the Technical/Commercial bid opening session.
- 7. Supplementary Offer / Modification of Original Bid. desirous to modify their offer/terms may submit their revised / supplementary offer (s) within the extended Tender Opening Date (TOD) by clearly stating to the extent of updation done to the original offer. The purchaser reserves the right to open the original offer along with the revised offer.

#### 8. Confidentiality

- a) Information relating to the evaluation of bids, and recommendation of Contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders. On completion of Technical Evaluation by the Committee, Vendors whose offer do not meet with the users Technical Specification will be restricted to participate in commercial bid opening process.
- b) Any attempt by a Bidder to influence the Purchaser in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- c) Notwithstanding, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it shall do so in writing.
- 9. <u>Deviation, Reservations and Omissions</u>. During the evaluation of Bids, the following definitions apply:
  - a) "Deviation" is a departure from the requirement specified in the Tender Documents;
  - b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tender Documents; and
  - c) "Omission" is the failure to submit part or all of the information or documentation required in the Tender Documents.
- 10. <u>Correction of Arithmetical Errors</u>. Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis: -

- a) If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected:
- b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- d) Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with the same, shall result in the rejection of the Bid.

#### 11. Evaluation of Bid.

- a) IISER Berhampur will evaluate technical and commercial acceptable offers on landed net Price basis.
- b) In case any BIDDER is silent on any clauses mentioned in this tender documents, IISER Berhampur shall construe that the BIDDER had accepted the clauses as per the invitation to tender no further claim will be entertained.
- c) No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
- d) The prices of the equipment (including indigenous items) and the warranty of the equipment as per the OEM product catalogue or the warranty clause indicated at Section IV of NIT, whichever is beneficial to the buyer (IISER Berhampur) all together shall be considered in determining L1.

**EMD**: All bidders except those specifically exempted shall furnish Bid Security Declaration as per our format in lieu of Earnest Money Deposit, failing which such offers will be rejected. Submission of Bid Security Declaration will be exempted for Govt. Depts and firms/public sector units/ MSE units registered under MSMED Act (subject to Declaration of Udyog Aadhar Memorandum number by the vendors on CPP Portal/Gerpegov) / firms registered under NSIC and Khadi Board as per applicable govt. directions, and on submission of valid documents/certificates in proof of the same.

If any bidder retracts from or without request of IISER Berhampur revises or amends his bid during its validity period or fails to submit Security Deposit within the stipulated time or fails to execute the required agreement when the contract is awarded or fails to commence the execution of the work on the stipulated date, they will be disqualified from bidding for any contract with IISER Berhampur for a period of Three years from the date of notification, without prejudice to IISER Berhampur right to claim damages and/or other legal recourse. Under taking for bid security should be submitted as per the attached format.

#### 12. Price Bid (For Import Supplies).

- a) Quoting of Price (s): It is mandatory to quote price in FOB/FCA basis only.
- b) If the bidder wishes to quote in CIP/DDP, then may be provided the details separately with cost breakup at given format.
- c) If the price is not quoted in Price Bid Form provided in the tender document then, IISER Berhampur will reject bid.
- d) If the bidder wishes to give pricing details, may be filled in in a separate sheet. It is mandatory

to quote optional items in separate sheet otherwise your quote will be rejected.

- e) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
- f) It is mandatory to quote optional items in separate sheet otherwise your quote will be rejected.

#### 13. Price Bid (For Indigenous Supplies).

- a) Quoting of Price (s): Price quoted should be in Indian Rupees, free delivery at IISER Berhampur Campus at site.
- b) PRICE BID must be submitted in enclosed Price Bid Form only.
- c) All the taxes including GST and other duties/levies should be shown separately.
- d) If the price is not quoted in Price Bid Form only provided in tender document then, IISER Berhampur will reject bid. If bidder wish to give pricing details, may be attached in separate sheet.
- e) In case of Multiple options of same product, bidders are requested to quote only one best option and not multiple options.
- f) It is mandatory to quote optional items on a separate sheet otherwise your quote will be rejected.

#### 14. Corrupt & Fraudulent Practices.

- a) IISER Berhampur requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy.
- b) The terms set forth below are defined as follows: -
- i) "Corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of in kind/value to influence the action of a public official in the procurement process or in contract execution:
- **ii) "Fraudulent practice"** means a misrepresentation or omission of facts in order to influence a procurement.

#### Process or the execution of a contract.

- iii) "Collusive practice" means a scheme or arrangement between two or more bidders, designed to establish bid prices at artificial, non- competitive levels; and
- iv) "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- v) IISER Berhampur will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.

#### 15. Cancellation of Tender.

- a) Not withstanding anything specified in this tender document, Purchaser / IISER Berhampur in his sole discretion, unconditionally and without assigning any reasons, reserves the rights:
  - i) To accept OR reject lowest tender or any other tender or all the tenders.
  - ii) To accept any tender in full or in part.

- iii) To reject the tender offer not confirming to the tender terms.
- b) IISER Berhampur will give purchase preference to Public Sector undertakings when applicable as per Govt. Policy/ Guidelines.
- c) Offer which deviates from the vital conditions (as illustrates below) of the tender shall be rejected:
  - i) Non-submission of complete offers as mentioned in the tender document,
  - ii) Receipt of offers after due date and time and or by email / fax (unless specified otherwise).
  - iii) Receipt of offers in open condition.
  - iv) Conditional Tenders and Unsigned Tenders will also be rejected.
- 16. <u>Delivery</u>: The successful BIDDER should deliver the material as per tender document/purchase order. The successful bidder should emboss stickers of purchase order number on the material to be delivered.

**Special Note**: The price bid and other documents have to be Submitted separately online at <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a>. The date of Submission of online Technical and Financial will be as per tender notice.

#### 17. Requirement for Vendors for uploading online tender.

#### P.C. Connected with internet

Registration with portal <a href="https://www.gerpegov.com/IISERBP">https://www.gerpegov.com/IISERBP</a>

Class-III Digital signature certificate in the name of the company of the vendor is mandatory (in the name of the company who will be submitting the EMD & general information). This may be obtained by calling our helpdesk (09073677150 and 9674758726). Bids will not be recorded without Digital signature Certificate.

Bidders will have to pay Tender Processing fee (**Amount as per work order including GST**) (Non-Refundable) through e-payment in favour of M/s BECIL Ltd.

Note: Please check the Digital Signature Certificate. For more details, bidders may visit e-tendering portal and download the help manuals uploaded in the website.

Contact Person: -

Mr. Rishi Shankar Chatterjee Mob: 09674758726

Email: helpdeskgerpegov@gmail.com

Help Desk No: 09073677150/09073677151/09073677152

#### **Section III: Conditions of Contract**

#### 1. Award of Contract.

- a) IISER Berhampur shall award the contract to the technically qualified eligible BIDDER whose bid has been determined as the lowest evaluated commercial bid.
- b) If more than one BIDDER happens to quote the same lowest price, IISER Berhampur reserves the right to award the contract to more than one BIDDER or any BIDDER.

#### 1(A). <u>Purchase preference to Local Manufacturers</u>.

Implementation of Make in India policy of Govt. of India, DIPP Order dated June 15<sup>th</sup>, 2017, the order is issued in pursuant to Rule 153(iii) of the GFR 2017.

As per instructions of the above order purchase preference shall be given to local suppliers in the following manner: -

#### where the quantity is divisible

Among all qualified bids, the lowest bid will be termed as L1, if L1 is from a local supplier (Indigenous) the full quantity will be awarded to L1.

If L1 bid is not from a local suppler, 50% of the order quantity shall be awarded to L1. Thereafter, the Lowest bidder among the local suppliers, will be invited to match the L1 price for the remaining 50% quantity subject to the local supplier's quoted price falling within the margin of purchase preference i.e. 20%.

#### Where the quantity is not divisible

If the L1 bidder is local suppler then the contract will be awarded to L1.

If L1 is not from local supplier, the lowest bidder among the local suppliers, will be invited to match the L1 price subject to local supplier's quoted price falling within the margin of purchase preference (20%), and the contract shall be awarded to such local suppler subject to matching the L1 price.

\*\*\*Here local supplier definition is not explained in the referred letter, however local supplier in the context of Make in India policy is Indigenously produced /processed goods and services.

#### 2. Prices.

- a) The supplier shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Purchaser in the contract.
- b) **For Indigenous Supplies** The supplier shall pay and bear all other liabilities, taxes and duties not specifically agreed by the Purchaser in the contract.

#### 3. **Pre-installation.**

a) Please also mention the pre-installation requirements for the equipment like ambient temperature, humidity, civil work, weather specifications, power specifications, etc. When items are provided full performance satisfaction should be demonstrated.

#### 4. Installation.

- a) BIDDER shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty period and thereafter as mentioned in the contract.
- b) Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site.

#### 5. Training.

- a) The BIDDER shall submit training proposal for the operation and maintenance to the personnel of IISER Berhampur on the offered equipment/machinery.
- b) Wherever needed, our technical persons should be trained by the supplier at the project site free of cost. In case the person is to be trained at supplier's site abroad or in India it should be mentioned in the quotation clearly. The supplier should bear all the expenses for such training including 'to & fro' fares and lodging & boarding charges.

#### 6. Terms of Payment.

(a) <u>For Indigenous items</u>. 100% payment shall be made against satisfactory, delivery and successful installation & commissioning of the equipment subject to submission/ extension of S.D. of 5% of Purchase order value in form of D.D. / B.G valid till 60 (sixty) days beyond the Warranty period.

#### (b) For imported items.

(i) 100% payment shall be made by wire/telegraphic transfer after delivery and acceptance after successful installation subject to submission of SD of 5% in form of DD/BG up to 60 (sixty) days beyond the Warranty period.

OR

(ii) 100% payment shall be made by Irrevocable Letter of Credit. Out of which 80% will be paid against submission of following documents: -

Air way Bills – 2 copies Packing List – 2 copies Invoice for shipping – 4 copies

- (c) Balance 20% shall be released after successful installation and commissioning of the equipment subject to submission/ extension of S.D. of 5% of Purchase order value in form of D.D. / B.G valid till 60 (sixty) days beyond the Warranty period.
- (d) <u>Warranty payment.</u> Payment shall be released year wise on completion of each year's AMC subject to satisfactory services and submission of tax invoice.

Note. I. All bank charges outside India shall be borne by the supplier.

- II. LC will be opened on receipt of unconditional acceptance of purchase order.
- III. Accepted term of payment shall be clearly indicated in Tender / Offer document
- 7. <u>Legal Matters</u>. All Domestic and International disputes are subject to Berhampur, Odisha, jurisdiction only.
- 8. <u>Transfer and Subletting.</u> The seller shall not sublet, transfer, assign or otherwise part with the acceptance to the tender or any part thereof, either directly or indirectly, without the prior written permission of the Purchaser.
- 9. Force Majeure. Force Majeure will be accepted on adequate proof thereof.

#### 10. Penalty/ Liquidated Damages.

- a) Timely delivery is the essence of the contract and hence if any consignment is delayed, liquidated damages at the rate 0.5% of the price of the delayed consignment, for each week or part whereof shall be levied and recovered subject to a maximum of 10% of total purchase order value.
- b) IISER Berhampur reserves the right to cancel the order in case the delay is more than 10

weeks. Penalties if any will be recovered by forfeiting PBG at vendor's cost and risks.

- c) <u>Specification and Samples</u>. The suppliers shall supply the stores in accordance with the specifications/ descriptions of stores given in the acceptance of tender. The Purchaser reserved the rights to alter the description of stores including drawings given in the acceptance of tender. In the event any such alteration result in any implication to the deliver and price, such implication shall be mutually agreed between the Purchaser and supplier. In case certified sample has been issued by the Purchaser and the Specifications / Drawings also exist in the acceptance of tender then the certified sample will govern the supply to the extent of material, workmanship and finished product.
- 11. <u>Supervision of Erection and Commissioning</u>. Successful BIDDER shall depute concerned specialist, for supervision of erection & commissioning of the machine to be carried out. The successful BIDDER shall make necessary arrangement at their own expenses for stay, transport and other expenses of their specialist during their stay in which also includes imparting free of cost training to IISER Berhampur personnel.
- 12. EARNEST MONEY DEPOSIT (GFR 2017 Rule 170). The Techno-commercial Bids must accompany details of EMD. EMD should be in the form of bank transfer (I-Collect) / Challan at any branch of SBI. If any assistance required:-Bidders may visit by copying the URL (<a href="http://www.iiserbpr.ac.in/pdf-doc/SBI%20Collect%20Guide.pdf">http://www.iiserbpr.ac.in/pdf-doc/SBI%20Collect%20Guide.pdf</a>) to download <a href="mailto:SBI Collect Guide">SBI Collect Guide</a>. The Techno-commercial Bids must accompany details of EMD payment. No interest shall be paid on earnest money deposited. Bidders having valid registration with NSIC/MSE for tendered item and value will be considered for exemption from EMD amount as per extant rules. Please submit bank account details for refund of EMD, in the RTGS IISER Berhampur format available on this link <a href="http://www.iiserbpr.ac.in/pdf-doc/RTGS%20NEFT%20Form\_IISER%20">http://www.iiserbpr.ac.in/pdf-doc/RTGS%20NEFT%20Form\_IISER%20</a> Berhampur.pdf for getting the refund of EMD/Payment. The editable format of RTGS form is also available in <a href="http://www.iiserbpr.ac.in/download-forms.php">http://www.iiserbpr.ac.in/download-forms.php</a> in S&P tab.

#### 13. Performance Guarantee (GFR 2017 Rule 171).

- (i) Performance Guarantee Bond is mandatory.
- (ii) Successful tenderer/ bidder should submit performance guarantee as prescribed above to be sent to Acting Stores & Purchase Officer, IISER Berhampur on or before 15 days from the due date of issue of order acknowledgment. The PGB to be furnished in the form of bank guarantee as per attached proforma with the tender documents, for an amount covering 5% of the purchase order value.
- (iii) The Performance Guarantee should be established in favour of "The Director, IISER Berhampur".
- (iv) PBG to be established through any of the National Banks (whether situated at Berhampur or outstation) with a clause to enforced the same on their local branch of Berhampur or any scheduled bank (other than national bank) situated at Berhampur. Bonds issued by co-operative banks will not be accepted.
- (v) Performance Guarantee Bond shall be for the due and faithfully performance of the contract and shall remain binding, notwithstanding such variations, alterations for extensions of time as may be made, given, conceded or agreed to between the successful tenderer and the purchaser under the terms & conditions of acceptance to the tender.
- (vi) The successful tenderer is entirely responsible for due performance of the contract in letter and spirit and all other documents referred to in the acceptance of tenders.
- (vii) The PBG shall be kept valid during the period of contract and shall continue to be enforceable for a period of 60 days beyond warranty period (i.e. Warranty period + 60 days) from the date of order acknowledgement. In case PBG needs extensions up to 60 days beyond warranty period then supplier shall initiate extensions to PBG one

month prior to expiry of PBG.

- (viii) For successful suppliers, if PBG is not submitted within **15 days** from the date of Order Acknowledgement, then the Purchase Order will be cancelled with forfeiting of EMD.
- (ix) No interest shall be payable by the buyer to the Bidder on PBG.

**Store & Purchase Officer** 

# Section IV

# **Schedule of Requirements and Compliance**

SI No.	Description	No. of Units
1	SITC of 500 MHz NMR SPECTROMETER AND ITS ACCESSORIES	1

#### Annexure I

# **Technical Specification**

S. No.	SPECIFICATION	REQUIREMENT
I	Magnet system (standard bore)	The NMR magnet should be an 11.74 tesla actively shielded standard bore (54 mm) super-conducting magnet with an operational frequency of 500 MHz for 1H with the following specifications:  i. The shortest possible radial and axial distance of stray (5 Gauss) field from the magnet's centre. Please specify your 5G axial and radial distances and the overall magnet dimensions/ceiling height requirements, etc.  ii. The drift rate of the magnetic field should be ≤ 5 Hz/hour or better.  iii. Liquid helium hold time should be the longest with auto-level digital monitoring, recording and low-level alarm.  iv. Liquid nitrogen hold time should be at least 10 days with auto-level digital monitoring, recording and alarm.  v. Please specify the total liquid helium and nitrogen hold volume, refill interval and refill volume for the cryogens.  vi. All support equipment for cryostat (e.g., Helium and liquid Nitrogen transfer lines) was provided.  vii. Should have Anti-vibration legs/stand; the lower limits on the frequency of vibrations damped should be specified.  viii. Built-in cryo-shims and room temperature shims (Ultra) shims; gradient shimming capability and its associated accessory (software/hardware);  ix. The deuterium lock channel should be compatible with gradients and automated shimming hardware.  x. The magnet should be compatible with the pneumatic sample load/spin/eject system.
II	Console of the Spectrometer	The spectrometer should have three independent RF channels (frequency range of operation should be specified) with the best frequency and phase resolution and; fast switching time for all parameters without any hidden delays. The configuration and the bandwidth of each channel should be specified.  The console (electronics) should include the following: i. Broadband frequency synthesizer for each channel. ii. Each channel should have frequency, phase and amplitude shaping capabilities with simultaneous switching of the parameters possible in 10 ns or less. iii. Waveform generators (for pulse shaping) for all channels. iv. Amplitude, phase and composite pulse decoupling generator. v. Pre-amplifiers and filters for appropriate frequencies for noise reduction. vi. High-power linear broadband amplifier 100 W or better for 1H channel and 300 W or better for 13C/15N and 50 W or better for 2H channel, to provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multi-

		receiver experiments for simultaneous acquisition of 1H-15N/1H-13C or 1H-19F/ 1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode.  viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum sample rate. (32 bits or higher)  x. Preamplifier for multinuclear observation, 2H-lock, all necessary filters for noise and artefact reduction; Digital lock control unit and digital lock receiver; deuterium amplifier with integrated lock switch for automatic gradient (room temperature) shimming and shim control boards.  xi. Magnetic field z-axis gradient unit 30G/cm gradient or better strength that can be generated with a minimum of 10 A external gradient amplifier, for the control for execution of gradient spectroscopy, gradient shimming, generation of pulsed field gradient (PFG) of desired shape and intensity, high-quality PFG-based solvent suppression, coherence selection and DOSY experiments etc. Accessories for this unit should be provided. An optional quote for alternate gradients should be provided. Xii. Gradient control with a resolution of 12.5 ns or better for Z gradient.  xiii. Variable temperature control unit having a standard temperature range (minus100 °C to plus150 °C) capability is desired:  a. High resolution/accuracy/stability of temperature setting (at least +/-0.1 °C).  b. Please specify the resolution/accuracy/stability of the temperature setting of the variable temperature control unit.  c. Accurate temperature determination and regulation are desired.  d. All the necessary accessories to maintain the desired sample temperature within the above-mentioned range should be quoted.
		xiv. Digital quadrature detection, ethernet-based communication and
		control system for bi-directional connection to the host computer.
III	Autosampler	A fully functional autosampler with a capacity to handle at least 60 sample holders should be included along with enough number of spinners. All spinners should be applicable for the entire Variable temperature range i.e., +150 °C to -100 °C.
IV	NMR probes	1. High-resolution two channel Liquid/solution state NMR probe:  A state-of-the-art high-sensitive 5 mm broadband probe with the ability to observe 1H, X, and 19F and capable of 1H and 19F decoupling. The probe should be equipped with auto-tune and match. The probe should enable to perform, 19F{1H}, 13C {1H, 19F}, 1H-19F HOESY, 19F-19F-COSY, 1H-19F-HSQC, 1H{19F}-13C{19F}-HSQC/HMBC/HMQC, 19F{1H}-13C{1H}-HSQC/HMBC/HMQC, X{1H, 19F} where X is a 31P-15N (broadband range) correlation experiment. Further, the probe should allow deuterium detection experiments using short 2H 90-degree pulses (This arrangement should be independent of the 2H lock channel). Operating temperature range at -100 °C to +150 °C or even improved ranges. The S/N ratio of 1H should be 850 or more on standard test samples. S/N ratio of 13C should be 310 or more on standard test samples.  2. Solid-state NMR probe:  One 3.2MM HXMAS PROBE with essential accessories including 10 numbers of 3.2 mm Zirconium oxide rotors for solid-state NMR analysis. Probe should have the capability to cover Nuclei for 1H, 19F, 31P, 7Li, 11B, 23Na, 27Al, 13C, 79Br, 207Pb, 29Si, 6Li, 15N.
v	Data storage/software/Peripherals comprising of the following:	i. Latest high-performance state-of-the-art LINUX-1/Windows-1 computers (2 numbers) with a minimum of 16 GB RAM, minimum SSD hard disk with large storage space available for operation of the NMR spectrometer complete with pre-loaded latest software/data cards for data acquisition, processing and analyses including tools/software for complete automation of data acquisition and peripherals including two 27 inch TFT monitor, and heavy-duty laser colour printer should be included.

		ii. A laser jet colour Printer all in one PRINT/SCAN/Copy. Two sided iii. Printing; 50-sheet ADF; Scan to email/PDF; Print; Speed: 50 PPM, Network, 1200 dpi, Duplex, Wi-Fi, Additional two pairs of Laser Cartridge including with this printer). All hardware and software including drivers, monitor, device interfaces. iv. All hardware and software including drivers, monitor, device interfaces cards/network must be preinstalled and preconfigured on the computer provided. iv. All required hardware and software-related documents, manuals, installation CDs/DVDs, cables, connectors, etc. should be provided. v. The software should be capable of all up-to-date heteronuclear multidimensional NMR experiments including the latest experiments for acquisition and reconstruction from sparse data and multi-dimensional NMR spectroscopy. It should be capable of handling/executing multireceiver experiments under simultaneous acquisition in dual/multireceiver mode vi. The package should include all the latest pulse sequences for multidimensional NMR experiments available with the vendor. Please provide a list of pulse sequences available for ready use. vii. Licensed software/modules should include the following: Acquisition, processing, plotting, multiplet analysis, deconvolution, automation, multivariate statistical analysis, the study of molecular dynamics, DOSY experiments along with software-assisted structure confirmation for small molecules. viii. Any software upgrade (pulse sequence and processing) or new software (pulse sequence and processing) that are released during the warranty should be provided to the user free of cost.
VI	Consumables and Accessories	<ul> <li>i. Two sets of reference/calibration standards (including doubly enriched ubiquitin protein and all the available nuclei) should be provided for full operational qualification and instrument performance verification.</li> <li>ii. Essential spare parts for the magnet/spectrometer and the initial supply of cryogen (liquid helium) required for installation should be provided by the NMR supplier at their expense.</li> <li>iii. Two self-pressured liquid nitrogen Dewar's (200L) and one transfer line with necessary accessories and connectors/pipes for refilling of cryogens in the magnet.</li> </ul>
VII	The vendor should provide the following information separately:	<ul> <li>i. Configuration of the coils,</li> <li>ii. Nuclei whose RF coils/pre-amplifiers are cryo-cooled</li> <li>iii. Pulse widths for 1H, 13C, and 15N using standard samples.</li> <li>Please specify the sample used.</li> <li>iv. Best resolution and line shape (under sample spinning and non-spinning conditions). Please specify the line widths measured using the standard sample.</li> <li>v. Best signal-to-noise (S/N) ratio values for each nuclei of the probe measured using standard samples (Please provide data and mention the sample used). S/N should be measured using samples in regular 5 mm thin-walled tubes (E. g.: Wilmad 535pp).</li> <li>vi. Maximum gradient strength (≥ 30 G/cm).</li> <li>vii. Gradient recovery times (not more than 50 ☑s).</li> <li>viii. Decoupling pulse width, power, bandwidth, and duty cycle capability on each RF channel.</li> <li>ix. The temperature range over which the probe can be used (desired zero to 80 oC).</li> <li>x. Tuning accessory for auto-tuning capability</li> </ul>
VIII	Local/Indigenous items	i. A 3 HP scroll type (oil and moisture free) air compressor compatible with the instrument with an additional (min of 90L) S.S. make buffer tank, one refrigerated air dryer and one active alumina-based pressure swing dryer with suitable connectors fittings and filters to connect the instrument should be included. The equipment should be ISO-9001 certified.  ii. A compatible ISO-9001 certified online 20 KVA UPS, with at least

		20 minutes hack up 2 phase output with isolation transformer for the Air
		30 minutes back up, 3 phase output with isolation transformer for the Air compressor unit.
		iii. A compatible ISO-9001 certified online 15 KVA UPS, with one
		hour back up, single phase output for NMR electronics.
		iv. A suitable control unit for high temperatures of the order of 150 deg. C is desirable)
		i. Three-year warranty for all parts including local/Indigenous items
		and labor should be included. The vendor should provide
		Comprehensive (CMC) for 4th and 5th years; magnet quenching and
		breakdown service visits along with maintenance visits should be provided during the entire period for 5 years from the date of
		installation. Bidder shall note this requirement while quoting their
		rate.
		ii. The warranty should be in comprehensive manner means that it
		covers the whole system, like cover cryogen supply, and other items including all accessories and spare parts, etc.
		iii. In the warranty period minimum of one mandatory OEM engineer
		visit is required to check and calibrate the institute. This visit is
		separate from the other breakdown request.
		iv. All accessories/spare parts replaced shall be from OEM/supplier of same model or higher version.
		v. If within a period of 5 years after commission, any accessory/spare
		part is proved to be defective then such product shall be replaced
		by the manufacturer/supplier. Such replacement shall be sole
		obligation of the manufacturer/supplier, including payment of charges for freight delivery, custom duty and transportation, if any
		for IISER Berhampur.
		vi. In case of system breakdown during the warranty period, a
	Mannontry/Compies and	competent/suitable Service Engineer of the supplier should make
IX	Warranty/Service and support	as many visits as are required to rectify the problem and replace the faulty parts, without any liability of cost to IISER Berhampur.
	Support	vii. Service response time must be within max one week for small
		issues and within 2 weeks for major breakdown/hardware
		changeover; otherwise, the warranty period shall automatically be
		extended by the time taken to rectify the defects. riii. Regular upgrades to all software should be provided for the entire
		service life of the instrument.
		ix. A full 5 (3+2) years supply and refilling of liquid helium should be
		provided by the vendor including installation.  x. On-site training should be provided to personnel for smooth
		operation and maintenance of the complete system twice a year
		during the warranty period.
		xi. The vendor should provide trained manpower to operate the
		system and train in-house students for 3 years. xii. In case of system breakdown during the warranty period, a
		competent/suitable Service Engineer of the supplier should make
		as many visits as are required to rectify the problem and replace
		the faulty parts, without any liability of cost to IISER Berhampur.
		tiii. Service response time must be within 3-5 working days for small issues and within 10-14 working days for major
		breakdown/hardware changeover; otherwise, the warranty period
		shall automatically be extended by the time taken to rectify the
		defects.
***	D.P.	i. Item should be directly delivered to IISER Berhampur.
X	Delivery	
		i. The vendor should have at least 5 Installations of the above equipment or a higher version of the instrument in reputed government labs in India
		in the last 10 years (a list of users of the said instrument should be
XI	General requirements	provided).
Ai	deneral requirements	
		ii. A detailed list of the latest on-site installation requirements must be provided by the vendor.
		provided by the vehicut.

		iii. In case of an instrument break-down during the shipment, installation or at subsequent time due to faulty design or any other technical failure, the necessary cost for recharging the magnet/replacing the magnet or any other parts should be borne by the vendor. During the downtime of the instrument, the vendor should provide alternative instrument support/parts to keep the instrument functional while replacing/repairing parts.
XII	Optional items (Must quote separately)	High resolution broadband 5 mm liquid nitrogen cooled probe ( <i>Quote separately</i> )  i. It should be a 5 mm double resonance 1H, 19F, 31P to 15N liquid nitrogen-cooled broadband probe with 2H locking, Z-shielded gradient and auto-tuning and matching capability. It should be compatible with a 500 MHz magnet system  ii. It should be fitted with an actively shielded single-axis Z-gradient iii. Standard sample temperature ranges from -40 oC to +150 oC or better iv. Should have cooled 2H preamplifier  v. Should have a sample diameter of 5 mm  vi. Appropriate accessories for a functional liquid nitrogen-cooled probe.
XIII	Installation and Commissioning	<ul> <li>i. Supplier or their authorized agent needs to verify/survey the site prior to installation. Company should provide all the required information (in details) regarding the site preparation (especially floor partitioning, requirements of ACs, requirement of earthing, electrical connections etc.)</li> <li>ii. The supplier shall support the site preparation activity as per the requirement of the instrument.</li> <li>iii. The vendor should provide all other consumables, including but not limited to electrical switches, standard samples to demonstrate complete functionalities, etc., and whatever is required for installation, testing and commissioning shall be provided by the vendor without any extra cost.</li> <li>iv. Supply, Installation, Testing, and Commissioning (SITC) of the entire instrument(s) should be taken care by the vendor without additional cost.</li> </ul>
XIV	Note	<ul> <li>i. The indenter reserves the right to withhold placement of final order. The right to reject allow any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.</li> <li>ii. All the optional items must be quoted otherwise the bid will be technically rejected.</li> </ul>

# **Technical Compliance Statement**

# **Annexure IA**

S. No.	SPECIFICATION	REQUIREMENT	Bidder Compliance Please write YES/NO	Make/Brand & Model No. of the Quoted Item	Remarks
I	Magnet system (standard bore)	The NMR magnet should be an 11.74 tesla actively shielded standard bore (54 mm) superconducting magnet with an operational frequency of 500 MHz for 1H with the following specifications:  i. The shortest possible radial and axial distance of stray (5 Gauss) field from the magnet's centre. Please specify your 5G axial and radial distances and the overall magnet dimensions/ceiling height requirements, etc.  ii. The drift rate of the magnetic field should be ≤ 5 Hz/hour or better.  iii. Liquid helium hold time should be the longest with autolevel digital monitoring, recording and low-level alarm.  iv. Liquid nitrogen hold time should be at least 10 days with auto-level digital monitoring, recording and alarm.  v. Please specify the total liquid helium and nitrogen hold volume, refill interval and refill volume for the cryogens.  vi. All support equipment for cryostat (e.g., Helium and liquid Nitrogen transfer lines) was provided.  vii. Should have Antivibration legs/stand; the lower limits on the frequency of vibrations damped should be specified.  viii. Built-in cryo-shims and room temperature shims (Ultra) shims; gradient shimming capability and its associated accessory (software/hardware); ix. The deuterium lock channel should be compatible with gradients and automated shimming hardware.  x. The magnet should be			

		compatible with the pneumatic		
		sample load/spin/eject system.		
		The spectrometer should have		
		three independent RF channels		
		(frequency range of operation		
		should be specified) with the		
		best frequency and phase		
		resolution and; fast switching		
		time for all parameters without		
		any hidden delays. The		
		configuration and the bandwidth		
		of each channel should be		
		specified.		
		The console (electronics) should		
		include the following:		
		i. Broadband frequency		
		synthesizer for each channel.		
		ii. Each channel should		
		have frequency, phase and		
		amplitude shaping capabilities		
		with simultaneous switching of		
		the parameters possible in 10 ns		
		or less.		
		iii. Waveform generators		
		(for pulse shaping) for all		
		channels.		
		iv. Amplitude, phase and		
		composite pulse decoupling		
		generator.		
		v. Pre-amplifiers and		
		filters for appropriate		
		frequencies for noise reduction.		
		vi. High-power linear		
II	Console of the Spectrometer	broadband amplifier 100 W or		
		better for 1H channel and 300 W		
		or better for 13C/15N and 50 W		
		or better for 2H channel to		
		or better for 2H channel, to		
		provide the shortest possible		
		provide the shortest possible pulse widths. Please specify all		
		provide the shortest possible pulse widths. Please specify all relevant parameters including		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc.		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multi-		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H-13C or 1H-19F/1H-		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H-13C or 1H-19F/ 1H-31P based on one, two and		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/ 1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode.		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel.		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H-13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/ 1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum sample rate. (32 bits or higher)		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum sample rate. (32 bits or higher) x. Preamplifier for		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum sample rate. (32 bits or higher) x. Preamplifier for multinuclear observation, 2H-		
		provide the shortest possible pulse widths. Please specify all relevant parameters including power (Wattage), frequency range, duty cycle, maximum pulse duration etc. vii. The electronics should be capable of handling/executing multireceiver experiments for simultaneous acquisition of 1H-15N/1H -13C or 1H-19F/1H-31P based on one, two and multidimensional experiments in dual/multi-receiver mode. viii. Transmitter controllers should be provided for each channel. ix. ADC with high dynamic range and sampling rate. Please specify the resolution of the ADC (in bits) and the maximum sample rate. (32 bits or higher) x. Preamplifier for		

	T		T	
		Digital lock control unit and		
		digital lock receiver; deuterium		
		amplifier with integrated lock		
		switch for automatic gradient		
		(room temperature) shimming		
		and shim control boards.		
		xi. Magnetic field z-axis		
		gradient unit 30G/cm gradient		
		or better strength that can be		
		generated with a minimum of 10		
		A external gradient amplifier, for		
		the control for execution of		
		gradient spectroscopy, gradient		
		shimming, generation of pulsed		
		field gradient (PFG) of desired		
		shape and intensity, high-quality		
		PFG-based solvent suppression,		
		coherence selection and DOSY		
		experiments etc. Accessories for		
		this unit should be provided. An		
		optional quote for alternate		
		gradients should be provided.		
		xii. Gradient control with a		
		resolution of 12.5 ns or better		
		for Z gradient. xiii. Variable temperature		
		control unit having a standard		
		temperature range (minus100 °C		
		to plus150 °C) capability is		
		desired:		
		a. High		
		resolution/accuracy/stability of		
		temperature setting (at least +/-		
		0.1 °C).		
		b. Please specify the		
		resolution/accuracy/stability of		
		the temperature setting of the		
		variable temperature control		
		unit.		
		c. Accurate temperature		
		determination and regulation		
		are desired.		
		d. All the necessary accessories		
		to maintain the desired sample		
		temperature within the above-		
		mentioned range should be		
		quoted.		
		xiv. Digital quadrature		
		detection, ethernet-based		
		communication and control		
		system for bi-directional		
		connection to the host computer.		
		A fully functional autosampler		
		with a capacity to handle at least		
		60 sample holders should be		
	_	included along with enough		
III	Autosampler	number of spinners. All spinners		
		should be applicable for the		
		entire Variable temperature		
		range i.e., +150 °C to -100 °C.		
		1. High-resolution two		
		channel Liquid/solution state		
IV	NMR probes	NMR probe:		
		A state-of-the-art high-sensitive		
L	1	11 State-of-the-art mgn-sensitive		

			1	-	1
		5 mm broadband probe with the			
		ability to observe 1H, X, and 19F			
		and capable of 1H and 19F			
		decoupling. The probe should be			
		equipped with auto-tune and			
		match. The probe should enable			
		to perform, 19F{1H}, 13C {1H,			
		19F}, 1H-19F HOESY, 19F-19F-			
		COSY, 1H-19F-HSQC, 1H{19F}-			
		13C{19F}-HSQC/HMBC/HMQC,			
		19F{1H}-13C{1H}-			
		HSQC/HMBC/HMQC, X{1H, 19F}			
		where X is a 31P-15N			
		(broadband range) correlation			
		experiment. Further, the probe should allow deuterium			
		detection experiments using			
		short 2H 90-degree pulses (This arrangement should be			
		independent of the 2H lock			
		channel). Operating temperature			
		range at -100 °C to +150 °C or			
		even improved ranges. The S/N			
		ratio of 1H should be 850 or			
		more on standard test samples.			
		S/N ratio of 13C should be 310			
		or more on standard test			
		samples.			
		2. Solid-state NMR probe:			
		One 3.2MM HXMAS PROBE with			
		essential accessories including			
		10 numbers of 3.2 mm			
		Zirconium oxide rotors for solid-			
		state NMR analysis. Probe			
		should have the capability to			
		cover Nuclei for 1H, 19F, 31P,			
		7Li, 11B, 23Na, 27Al, 13C, 79Br,			
		207Pb, 29Si, 6Li, 15N.			
		: 1-4-1			
		i. Latest high-			
		performance state-of-the-art			
		LINUX-1/Windows-1 computers			
		(2 numbers) with a minimum of 16 GB RAM, minimum SSD hard			
		disk with large storage space			
		available for operation of the			
		NMR spectrometer complete			
		with pre-loaded latest			
		software/data cards for data			
		acquisition, processing and			
	Data	analyses including			
v	storage/software/Peripherals	tools/software for complete			
-	comprising of the following:	automation of data acquisition			
		and peripherals including two			
		27 inch TFT monitor, and heavy-			
		duty laser colour printer should			
		be included.			
		ii. A laser jet colour Printer all in			
		one PRINT/SCAN/Copy. Two			
		sided			
		iii. Printing; 50-sheet ADF; Scan			
		to email/PDF; Print; Speed: 50			
		PPM, Network, 1200 dpi, Duplex,			
		Wi-Fi, Additional two pairs of			

		Laser Cartridge including with		
		this printer). All hardware and software including drivers,		
		monitor, device interfaces.		
		iv. All hardware and software		
		including drivers, monitor,		
		device interfaces cards/network		
		must be preinstalled and		
		preconfigured on the computer		
		provided.		
		iv. All required hardware and		
		software-related documents,		
		manuals, installation CDs/DVDs,		
		cables, connectors, etc. should be		
		provided.		
		v. The software should be		
		capable of all up-to-date		
		heteronuclear multi-		
		dimensional NMR experiments		
		including the latest experiments		
		for acquisition and		
		reconstruction from sparse data		
		and multi-dimensional NMR		
		spectroscopy. It should be		
		capable of handling/executing multi-receiver experiments		
		multi-receiver experiments under simultaneous acquisition		
		in dual/multi-receiver mode		
		vi. The package should include		
		all the latest pulse sequences for		
		multi-dimensional NMR		
		experiments available with the		
		vendor. Please provide a list of		
		pulse sequences available for		
		ready use.		
		vii. Licensed software/modules		
		should include the following:		
		Acquisition, processing, plotting,		
		multiplet analysis,		
		deconvolution, automation,		
		multivariate statistical analysis,		
		the study of molecular dynamics,		
		DOSY experiments along with		
		software-assisted structure		
		confirmation for small molecules.		
		viii. Any software upgrade		
		(pulse sequence and processing)		
		or new software (pulse sequence		
		and processing) that are		
		released during the warranty		
		should be provided to the user		
		free of cost.		
		i. Two sets of		
		reference/calibration standards		
		(including doubly enriched		
		ubiquitin protein and all the		
VI	Consumables and Accessories	available nuclei) should be		
		provided for full operational		
		qualification and instrument		
		performance verification.		
		ii. Essential spare parts for		
		the magnet/spectrometer and		

		the initial supply of cryogen (liquid helium) required for installation should be provided by the NMR supplier at their expense.  iii. Two self-pressured liquid nitrogen Dewar's (200L) and one transfer line with necessary accessories and connectors/pipes for refilling of cryogens in the magnet.		
VII	The vendor should provide the following information separately:	ii. Configuration of the coils, iii. Nuclei whose RF coils/pre-amplifiers are cryocooled iii. Pulse widths for 1H, 13C, and 15N using standard samples. Please specify the sample used. iv. Best resolution and line shape (under sample spinning and non-spinning conditions). Please specify the line widths measured using the standard sample. v. Best signal-to-noise (S/N) ratio values for each nuclei of the probe measured using standard samples (Please provide data and mention the sample used). S/N should be measured using samples in regular 5 mm thin-walled tubes (E. g.: Wilmad 535pp). vi. Maximum gradient strength (≥ 30 G/cm). vii. Gradient recovery times (not more than 50 ②s). viii. Decoupling pulse width, power, bandwidth, and duty cycle capability on each RF channel. ix. The temperature range over which the probe can be used (desired zero to 80 oC). x. Tuning accessory for auto-tuning capability		
VIII	Local/Indigenous items	i. A 3 HP scroll type (oil and moisture free) air compressor compatible with the instrument with an additional (min of 90L) S.S. make buffer tank, one refrigerated air dryer and one active alumina-based pressure swing dryer with suitable connectors fittings and filters to connect the instrument should be included. The equipment should be ISO-9001 certified.  ii. A compatible ISO-9001 certified online 20 KVA UPS, with at least 30 minutes back up,		

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		3 phase output with isolation
		transformer for the Air
		compressor unit.
		iii. A compatible ISO-9001
		certified online 15 KVA UPS,
		with one hour back up, single
		phase output for NMR
		electronics.
		iv. A suitable control unit
		for high temperatures of the
		order of 150 deg. C is desirable)
		i. Three-year warranty for
		all parts including
		local/Indigenous items and labor should be
		included. The vendor
		should provide
		Comprehensive (CMC) for
		4th and 5th years; magnet
		quenching and breakdown
		service visits along with
		maintenance visits should
		be provided during the
		entire period for 5 years
		from the date of
		installation. Bidder shall
		note this requirement
		while quoting their rate.
		ii. The warranty should be in
		comprehensive manner
		means that it covers the
		whole system, like cover
		cryogen supply, and other
		items including all
		accessories and spare
		parts, etc.
	Warranty/Service and	iii. In the warranty period
IX	support	minimum of one
	• •	mandatory OEM engineer
		visit is required to check and calibrate the institute.
		This visit is separate from the other breakdown
		request. iv. All accessories/spare parts
		replaced shall be from
		OEM/supplier of same
		model or higher version.
		v. If within a period of 5
		years after commission,
		any accessory/spare part
		is proved to be defective
		then such product shall be
		replaced by the
		manufacturer/supplier.
		Such replacement shall be
		sole obligation of the
		manufacturer/supplier,
		including payment of
		charges for freight
		delivery, custom duty and
		transportation, if any for
		IISER Berhampur.
		vi. In case of system

warranty person, a competent solution is supplier should make as many visits as are required to rectify the problem and replace the faulty parts, without any liability of cost to ISSR Berhampur. Service response time must be within max one week for small issues and within 2 weeks for small issues and within 2 weeks for major breakdown, hardware Regular upgrades to all software should be provided for the entire service life of the instrument.  iii. A full 5 (3+2) years supply and refilling of liquid helium should be provided by the vendor including installation.  ix. On-site training should be provided by the vendor including installation.  ix. On-site training should be provided to personnel for smooth operation and maintenance of the complete system twice a year during the warranty period.  X. The vendor should provide trained manpower to operate the system and train in-house students for 3 years.  xi. In case of system breakdown during the warranty period, a competent, solution of the supplier should make as many visits as are required to rectify the problem and replace the faulty parts, without any liability of cost to IISER Berhampur.  xii. Service response time must be within 3-5 working days for small issues and within 10-14 working days for small issues and within 10			breakdown during the	
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	X	Delivery		
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		T	T	
		i. The vendor should have at		
		least 5 Installations of the above		
		equipment or a higher version of		
		the instrument in reputed		
		government labs in India in the		
		last 10 years (a list of users of		
		the said instrument should be		
		provided).		
		:: A data:ladl:at afab a lataat an		
		ii. A detailed list of the latest on-		
		site installation requirements		
		must be provided by the vendor.		
		iii. In case of an instrument		
ΧI	General requirements	break-down during the		
711	deneral requirements	shipment, installation or at		
		subsequent time due to faulty		
		design or any other technical		
		failure, the necessary cost for		
		recharging the		
		magnet/replacing the magnet or		
		any other parts should be borne		
		by the vendor. During the		
		downtime of the instrument, the		
		vendor should provide		
		alternative instrument		
		support/parts to keep the		
		instrument functional while		
		replacing/repairing parts.		
		High resolution broadband 5		
		mm liquid nitrogen cooled		
		probe (Quote separately)		
		i. It should be a 5 mm double		
		resonance 1H, 19F, 31P to 15N		
		liquid nitrogen-cooled		
		broadband probe with 2H		
		locking, Z-shielded gradient and		
		auto-tuning and matching		
		capability. It should be compatible with a 500 MHz		
		magnet system		
XII	Optional items	ii. It should be fitted with an		
	(Must quote separately)	actively shielded single-axis Z-		
		gradient		
		iii. Standard sample temperature		
		ranges from -40 oC to +150 oC		
		or better		
		iv. Should have cooled 2H		
		preamplifier		
		v. Should have a sample		
		diameter of 5 mm		
		vi. Appropriate accessories for a		
		functional liquid nitrogen-cooled		
		probe.		
		i. Supplier or their		
		authorized agent needs to		
		verify/survey the site		
	Installation and	prior to installation.		
XIII	Installation and	Company should provide		
	Commissioning	all the required		
		information (in details) regarding the site		
		regarding the site preparation (especially		
		floor partitioning,		
L		partitioning,		

			requirements of ACs,		
			requirement of earthing,		
			electrical connections etc.)		
		ii.	The supplier shall support		
		11.			
			the site preparation		
			activity as per the		
			requirement of the		
			instrument.		
		iii.	The vendor should provide		
			all other consumables,		
			including but not limited		
			to electrical switches,		
			standard samples to		
			demonstrate complete		
			functionalities, etc., and		
			whatever is required for		
			installation, testing and		
			commissioning shall be		
			provided by the vendor		
			without any extra cost.		
		iv.	Supply, Installation,		
		1	Testing, and		
			Commissioning (SITC) of		
			the entire instrument(s)		
			should be taken care by		
			the vendor without		
			additional cost.		
		i.	The indenter reserves the		
		1.			
			0		
			placement of final order.		
			The right to reject allow		
			any of the quotations and		
			to split up the		
			requirements or relax any		
XIV	Note		or all of the above		
			conditions without		
			assigning any reason is		
			reserved.		
		ii.	All the optional items must		
			be quoted otherwise the		
			bid will be technically		
			rejected.		

### **TECHNO-COMMERCIAL BID**

## E-Tender Enquiry No. IISERBpr/S&P/2024-25/26 date 02.07.2024 Supply of Research Equipment for IISER Berhampur

1.	Name of Tendering Company with Registration No.			
	&Date issued by appropriate authorities			
	(Please enclose copy of certificate of registration)			
2.	Do you possess trade license issued by Competent			
	Authorities in India? If so, please enclose a copy.			
3.	Name of Proprietor / Director			
4.	Furnish following particulars of the Registered			
	Office			
	a. Complete Postal Address			
	b. Telephone No.			
	c. Fax. No.			
	d. E-Mail Address			
5.	Furnish following particulars of the Local Branch			
J.	Office. (if any)			
	a. Complete Postal Address			
	b. Telephone No.			
	c. Fax. No.			
	d. E-Mail Address			
6.	PAN No. (Attach Attested Copy)			
7.	TIN No. (Attach Attested Copy)			
8.	If Manufacturer – Pl. attach the certificate of			
0.	Registration			
	If Authorized Dealer / Distributer – Pl. attach			
	relevant tender specific authorization certificate.			
9	Financial Turnover for the last three Financial	2021-22		
_	Years (Please attach copy of certificate by	2022-23		
	Chartered Accountant in original) The bidder should	2023-24		
	have 50% of the estimated value of the equipment.			
10	Give details of the major clients – Educational	Name of	PO No. &	PO Value
	Institutes/Universities, Government Departments,	Client	Date	
	Research Organizations, to whom item/material of			
	the same type have been supplied by the bidder			
	during the last two years in the following format.			
11	The agency should not have been black listed or			
	banned by any Govt. Department, Government			
	Organization, PSU, University, Autonomous			
	Institute etcA notarized certificate to this fact			
	should be enclosed with techno-commercial bid as			
	per attached format.			
12	Are you an ISO certified manufacturer? If so,			
	please attach a copy of the certificate.			
13	Please specify the minimum time required to			
	supply the item / material from the date of receipt			
4.4	of the Purchase Order			
14	Additional information, if any (Attach separate			
4.5	sheet, if required)			
15	EMD Details, if exempted please upload relevant			
16	Certificate.			
16	Price Basis (please mention the appropriate INCO			
	term i.e FOB/FCA/CIP/CIF/FOR)	İ		

17	Country of origin	
18.	Indicate approximate dimensions of the packages	
19.	Total weight of consignment	Not Applicable
20	Furnish details of registration with the competent	
	authority in case procurement from a bidder of a	
	country which shares a land border with India	
	in accordance with Ministry of Finance, Gol order	
	No. F.7/10/2021-PPD(1) dt. Feb 23, 2023.	

#### FORMAT FOR PERFORMANCE GUARANTEE BOND

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred) (TO BE ESTABLISHED THROUGH ANY OF THE NATIONAL BANKS (WHETHER SITUATED AT BERHAMPUR OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT BERHAMPUR OR ANY SCHEDULED BANK SITUATED AT BERHAMPUR. BONDS ISSUED BY CO-OPERATIVE BANKS ARE NOT ACCEPTED.).

To,
The Director,
IISER Berhampur, Goyt, ITI Campus, Engineering School Road, Berhampur, Odisha -760010

IISER Berhampur, Govt. ITI Campus, Engineering School Road, Berhampur, Odisha -760010.
LETTER OF GUARANTEE  WHEREAS Indian Institute of Science Education and Research, Berhampur (Buyer) have placed an order for supply of (item name)
NOW THIS BANK HEREBY GUARANTEES that in the event of the said tenderer (seller) failing to abide by any of the conditions referred in tender document, purchase order / performance of the equipment / machinery, etc. this Bank shall pay to Indian Institute of Science Education and Research, Berhampur on demand and without protest or demur Rs
This Bank further agrees that the decision of Indian Institute of Science Education and Research, Berhampur (Buyer) as to whether the said Tenderer (Seller) has committed a breach of any of the conditions referred in tender document / purchase order shall be final and binding.  We,
Notwithstanding anything contained herein:  1. Our liability under this Bank Guarantee shall not exceed Rs. (Indian Rupees
This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at

**Instruction to Bank**: Bank should note that on expiry of Bond Period, the Original Bond will not be returned to the Bank. Bank is requested to take appropriate necessary action on or after expiry of bond

Date:

# FORMAT FOR CERTIFICATE & DECLARATIO CERTIFICATE & DECLARATION

I have carefully gone through the Terms & Conditions as mentioned in the above referred Tender document. I declare that all the provisions of this Tender are acceptable to my company.

- 2. It has been certified that all information provided in tender form is true and correct to the best of my knowledge and belief. No forged / tampered document(s) are produced with tender form for gaining unlawful advantage. We understand that IISER, Berhampur is authorized to make enquiry to establish the facts claimed and obtain confidential reports from clients.
- In case it is established that any information provided by us is false / misleading or in the circumstances where it is found that we have made any wrong claims, we are liable for forfeiture of EMD/SD and or any penal action and other damages including withdrawal of all work / purchase orders being executed by us. Further IISER, Berhampur is also authorized to blacklist our firm/company/agency and debar us in participating in any tender/bid in future.
- 4. I / We assure the Institute that neither I / We nor any of my / our workers will do any act/s which are improper / illegal during the execution in case the tender is awarded to us.
- 5. Neither I / We nor anybody on my / our behalf will indulge in any corrupt activities / practices in my / our dealing with the Institute.
- 6. Our Firm/ Company/ Agency is not being blacklisted or banned by any Govt. Department, PSU, University, Autonomous Institute or Any Other Govt. Organization.

Date	Signature of the Tenderer
Place	Stamp

Note: This certificate should be executed on duly notarized` 100/- NJ Stamp Paper.

# CERTIFICATE OF COMPLIANCE (To be given on Company Letter Head)

	Date :
To,	
The Registrar, IISER Berhampur Berhampur, Ganjam District Odisha – 760010	
Sub: Certificate of Compliance	
Tender Reference No:	
Name of Tender:	
We have read the clause regarding restrictions on procurement from a bidder of a coland border with India. We declare that our company is not from such a country or, if has been registered with the Competent Authority. We hereby certify that all requirer fulfilled and is eligible to be considered. [Where applicable, evidence of valid registra Authority shall be attached]	from such a country, nents in this regard are
Yours faithfully,	
(Signature of the Bidder, with Official Seal	

## **DECLARATION OF LOCAL CONTENT**

(To be given on company letter head - For tender value below Rs.10 crores) (To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 crores)

_	Date :
To,	
The Registrar, IISER Berhampur Berhampur, Ganjam District Odisha – 760010	
Sub: Declaration of Local content Tender Reference I	No:
Name of Tender : -	
Country of Origin of Goods being offered:	
2. We hereby declare that items offered has% lo	ocal content.
"Local Content" means the amount of value added in offered minus the value of the imported content in the the total value, in percent.	
The bidders cannot claim services such as transporta and after sales service support like AMC/CMC etc as	
"*False declaration will be in breach of Code of Integr Rules for which a bidder or its successors can be deb General Financial Rules along with such other actions	parred for up to two years as per Rule 151 (iii) of the
(Signature of the Bidder, with Official Seal)	

# Price Bid for Indigenous Supplies, Quotes in INR only NIT No. IISER Bpr/S&P/2024-25/26 dt. July 02, 2024

Sr. No.	Description of Item & Specification (Specifications as per section IV of NIT)	HSN/S A C Code	Quantity in Units	Discount %	IGST %	CGST %	SGST%	Total Bid Price
2	Supply, Installation, Testing and Commissioning of 500 MHz NMR Spectrometer and Accessories with 03 years warranty.  Installation and commissioning charges		1					
	Other Charges Please Specify Details  Grand Total							

# HSN Code: "Harmonized System of Nomenclature Code No." and SAC Code: "Service Accounting Codes

1.	Delivery mode	Delivery at IISER Berhampur, at site only.
2.	Total Bid price	should be inclusive of all taxes and levies transport, loading, unloading etc.
3.	Validity of bid	Minimum 90 days from the date of submission of quotation/tender.
4.	Delivery Period	
5.	Payment Term	

Note: Prices quoted in other currencies will be summarily rejected.

# **Price Bid for Optional items / CMC/AMC**

(for Optional Items - The Institute will decide based on its requirements and may be evaluated separately)

OEM Default warranty as per product catalogue : \_\_\_\_\_

Description	INR
Please quote your most competitive package Rates for Comprehensive Maintenance Contract after the extended warranty of 3 years:	
1 <sup>st</sup> year	
2 <sup>nd</sup> Year	
Please quote your most competitive package Rates for AMC for a period of : One Year	
Two Years	
Three Years	
Please quote prices of Optional items /equipment if any	
1.	
2	
3	
4	
5	
6	
7	
8	
9	
10	