NOTICE INVITING TENDER (NIT) FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF RF ANECHOIC CHAMBER WITH FREQUENCY RANGE FROM 0.8 TO 40 GHZ WITH VNA INTERFACING FOR AUTOMATIC 3D PATTERN MEASURMENT FOR TRANSIT CAMPUS Tender No. IITPKD/ELE/SD/046/2019-20

Date/Time of Publication: 25-10-2019, 1500 hrs Date/Time of Closing: 14-11-2019, 1500 hrs



Indian Institute of Technology Palakkad Ahalia Integrated Campus, Kozhipara, Palakkad – 678 557.

1. GENERAL

- 1.1. Indian Institute of Technology Palakkad (herein after called "IITPKD") invites sealed Tenders under Two-Bid System for Supply, Installation, Testing And Commissioning of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement For Transit Campus as per the technical specifications given in Annexure-I.
- 1.2. The tender documents may be obtained from the Office of the Registrar, IIT Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad-678557 or downloaded from https://eitpkd.ac.in/tenders or <a href="https://eitpkd.ac.in/tenders or <a href="https://eitpkd.
- 1.3. The bids shall reach Registrar, IIT Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad-678557, by Post/Courier/in person latest by 14-11-2019, 1500 hours. Bids received after the abovementioned date and time shall not be considered. Bids sent through Cable/Facsimile/Email/FAX/any other mode shall not be considered. Conditional bids will be rejected outright. The tender box is kept in the office of the Academic Block, IIT Palakkad, Ahalia Integrated Campus, Kozhipara, Palakkad-678 557.
- 1.4. The responsibility of submission of the bids on or before the last date shall rest with the tenderer. The institute will hold no responsibility for the non-receipt of the bids or for the bids received after the date/time specified. Any bid received by IITPKD after the bid submission deadline prescribed by IITPKD, shall be rejected and returned unopened to the Bidder.

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S. No.	Events	Date and Time
1	Publication of the Tender Document	25-10-2019, 1500 hrs
2	Last date for submission of sealed tenders	14-11-2019, 1500 hrs
3	Opening of Technical Bids	14-11-2019, 1515 hrs

- 1.6. Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under Laws of India. Such action will result in the rejection of bid, in addition to other punitive measures.
- 1.7. Each tenderer shall submit only one bid, either by himself or as a partner in a joint venture or as a member of consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected.
- 1.8. The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process.
- 1.9. The Tender Document is not transferable. The bidder shall make a copy of the tender document before submitting the same to the concerned office. No requests will be entertained for making a copy after the submission of the document.
- 1.10. IITPKD will respond to any request for clarification or modification of the Tender Document that are received up to **FIVE (05) days** prior to the deadline for submission of bids prescribed by IITPKD. For this purpose, the prospective bidder(s) requiring clarification in

the Tender Document shall notify IITPKD in writing at the address mentioned. Any such clarification, together with all details on which the clarification had been sought, will be published in the website.

1.11. Except for any such written clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Registrar, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute.

2. AMENDMENTS IN THE TENDER DOCUMENT

- 2.1. At any time prior to the deadline for submission of bids, IITPKD may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Tender Document by way of amendment(s).
- 2.2. Amendments will be intimated through the institute's website and the tenderers shall ensure that the amendments are carried out in the bid before submission. The amendments will not be published in newspapers. Bidders should regularly visit the institute's website to keep themselves updated.
- 2.3. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail. Further, it will be assumed that the Bidder has taken into account, such amendments, while submitting the bid.

3. COMPOSITION OF THE TENDER DOCUMENT

- 3.1. The Tender Document comprises of:
- (a) Instruction to the bidders including terms and conditions
- (b) Technical Specifications (Annexure-I)
- (c) Pre-qualification Criteria (Annexure-II)
- (d) Techno-Commercial Parameters (Annexure-III)
- (e) Commercial Bid (Annexure-IV)
- (f) Compliance Statement (Annexure-V)
- (g) Format of Performance Security (Annexure-VI)
- (h) Declaration (Annexure-VII)
- (i) Fall Clause Notice Certificate (Annexure-VIII)
- 3.2. The bidder is expected to examine all instructions, forms, terms and conditions in the Tender Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/ Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the Tender Document in every respect will be at the bidder's risk and may result in rejection of the bid.
- 3.3. The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document.

4. LANGUAGE/FORMAT/SIGNING OF THE BID

- 4.1. The bid prepared by the Bidder and all correspondence and documents related to the tender exchanged by the Bidder and IITPKD shall be in English and the Contract shall be construed and interpreted in accordance with that language. If any of the brochures, leaflets or communication is prepared in any language other than English, a translation of such document, correspondence or communication shall also be provided at the cost and risk of the bidder. The translation so provided shall prevail in matters of interpretation. The bidder, with respect to such documents, correspondence and communications, shall bear the costs and risks of such translation.
- 4.2. The documents comprising the bid shall be typed or written in indelible ink and all the pages shall be signed by the bidder or a person or persons authorized by the bidder. All the pages of the bid shall be numbered and except for unamendable printed, shall be signed by the person or persons authorized.
- 4.3. The bid shall not contain any internalizations, erasures, overwriting, except to correct errors made by the bidder, in which case the person or persons signing the bid shall initial such corrections with date.

5. DOCUMENTS COMPRISING THE BID

5.1. The Technical and the Commercial Bids shall be sealed by the bidder in separate covers duly superscribed as Supply, Installation, Testing and Commissioning of RF Anechoic

Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement and both these sealed covers are to be put in a bigger cover, which should also be sealed and duly superscribed as Supply, Installation, Testing And Commissioning of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3d Pattern Measurement For Transit Campus - Tender No. IITPKD/ELE/SD/046/2019-20. The technical details of the equipment should be kept inside the Technical Bid envelope and sealed. If the bigger cover is not sealed and marked as required above, IITPKD will assume no responsibility for the bid's misplacement or premature opening.

- 5.2. Bids must either be spiral bound/stapled together. No loose sheets will be accepted. All pages must be serially numbered.
- 5.3. The bidder shall furnish, as part of the bid, an EMD (Earnest Money Deposit) for Rs. 60,000/- in the form of an Account Payee DD/Fixed Deposit Receipt/Bank Guarantee from a nationalised bank in an appropriate format, in favour of INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD PAYABLE AT PALAKKAD along with the Tender Document. EMD shall be put in a separate sealed cover and duly superscribed (as was done for the technical/commercial bids). It should not be enclosed either with Technical Bid or with Financial Bid.
- 5.3.1. Bids not accompanied by the EMD shall be rejected/disqualified.
- 5.3.2. Photo/FAX copies of the Demand Draft/Banker's pay orders will not be accepted.
- 5.3.3. No interest will be paid for the EMD.
- 5.3.4. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest by the 30^{th} day after the award of the contract.
- 5.3.5. EMD of the successful bidder shall be returned on receipt of the prescribed Performance Security and after signing of the contract agreement.
- 5.3.6. EMD shall be forfeited, if the bidder withdraws his bid during the period of validity of the tender.
- 5.3.7. EMD shall be forfeited, if the successful bidder refuses or neglects to execute the contract or fails to furnish the required Performance Security within the time frame specified by the Institute.
- 5.4. Documents establishing conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or equipment that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.
- 5.5. Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.
- 5.6. Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.
- 5.7. Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.
- 5.8. The technical bid should consist of all technical details along with commercial terms and conditions. No prices should be included in technical bid. Financial Bid should indicate item-wise prices for the items mentioned in the technical bid.
- 5.9. Bidders, who are bidding for this NIT shall,
- (i). have documentary evidence (Purchase Order) of having completed Supply, Installation, Testing and Commissioning of at least 1 unit of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement to a Centrally Funded Technical Institution (e.g., IIT, NIT, IISc, IISER, etc.). The bidder must provide a certificate of satisfactory performance of the supplied equipment from the institute to which they have recently supplied. Contact details of the faculty Incharge of the installed setup must be provided.

- (ii). Have an Average Annual Turnover of **Rs.90 Lakh** during each of the last three financial years (2016-17, 2017-18, 2018-19). The bidder shall enclose the audited statements of the indicated financial years, which should have been certified by a Chartered Accountant.
- 5.10. Copy of Tender Document marked "Original" with each page signed and stamped to acknowledge acceptance of the same.

6. BID PRICES

- 6.1. Prices must be quoted separately for each equipment/item identified.
- 6.2. Price quoted for equipment/item must include all costs associated with packing, transportation, insurance, delivery of equipment, taxes (separately), loading and unloading on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation.
- 6.3 For equipment ordered in foreign currency, opening of LC, payment of Customs Duty and clearance of goods shall be done by the supplier or its authorized Indian agent. The custom duty as applicable after considering eligible concessions based on DSIR exemption etc. will only be paid by the purchaser. A copy of the DSIR Certificate shall be provided by the purchaser upon request, for customs duty exemption. The custom duty as applicable after considering eligible concessions based on DSIR exemption etc. will only be paid by the purchaser against submission of Original Bill of Entry and TR6 payment Challan. A copy of the DSIR Certificate shall be provided by the purchaser upon request, for customs duty exemption against submission of necessary documents as mentioned below
- a) Supplier's Invoice giving full details of the goods including quantity, value, etc.;
- b) Packing list;
- c) Certificate of country of origin;
- d) Manufacturer's guarantee and Inspection certificate;
- e) Inspection certificate issued by the Purchaser's Inspector;
- f) Insurance Certificate;
- g) Name of the Vessel/Carrier;
- h) Bill of Lading/Airway Bill;
- i) Port of Loading;
- j) Date of Shipment;
- k) Port of Discharge & expected date of arrival of goods and
- 1) Any other document(s) as and if required in terms of the contract
- 6.4. Prices quoted by the bidder shall be fixed during the validity of the bid.

7. BID CURRENCY

- 7.1. Prices of indigenous equipment/items shall be quoted in Indian Rupees.
- 7.2. Prices of equipment/items originating in other countries shall be quoted in the currency of country of origin and the portion of allied work and services, which are to be undertaken in India, are to be quoted in the Indian Currency. The comparison of financial bids would be done after converting the currency value in INR based on RBI rates applicable on the date of opening of the tender.

8. CONFORMITY OF THE TENDER DOCUMENT

- 8.1. The Bidder shall furnish, as part of its bid, documents establishing the conformity of the Equipment that the Bidder proposes to supply under the Contract to the requirements of the Purchaser, as given in the Tender Document.
- 8.2. The documentary evidence of conformity of the Equipment to the Tender Document may be in the form of written descriptions supported by literature/diagrams/certifications, including:
- (a) A detailed description of the essential technical, functional and performance characteristics of the equipment that the Bidder is proposing to supply;
- (b) Technical details of the major subsystems/components of the equipment;

9. PERIOD OF VALIDITY OF BIDS

Bids shall remain valid for a period of 180 days after the date of deadline for submission of bids prescribed by the Purchaser.

10. MODIFICATION AND WITHDRAWAL OF BIDS

- 10.1. The Bidder may modify or withdraw the bid after submission, provided a written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for bid submission.
- 10.2. The Bidder's modifications shall be prepared, sealed, marked and dispatched in an envelope duly marked BID MODIFICATION.
- 10.3. A Bidder wishing to withdraw the bid shall notify the Purchaser in writing prior to the deadline prescribed for bid submission. The withdrawal notice shall:
- (a) be addressed to the Purchaser at the specified address and
- (b) bear the reference number and the title of the project, and the words BID WITHDRAWAL NOTICE. Bid withdrawal notices received after the bid submission deadline will be ignored and the bid submitted prior to that will be deemed to be a valid bid.
- 10.4. No Bid may be modified subsequent to the deadline for submission of Bids.
- 10.5. No bid may be withdrawn in the interval between the bid submission deadline and the expiration of the bid validity period. Withdrawal of a bid during this interval may result in the forfeiture of the Bidder's EMD.

11. OPENING AND EXAMINATION OF BIDS

- 11.1. The Technical bids will be opened on the prescribed date and time as mentioned in the Bid document. Bidders or their representative may be present during the opening of technical bid, if they wish to be present.
- 11.2. The purchaser will evaluate the technical bids. Those bids, whose technical bids fulfill the technical requirements and responsive to the tender requirements will be considered. Those bids which found to be either non-responsive, not satisfying the technical requirements or both will not be considered and will be rejected.
- 11.3. The Price bids of the successful bidders on the basis of evaluation as mentioned in will be considered for the next stage for opening.
- 11.4. The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required security has been furnished, whether the documents have been properly signed and whether the bids are generally in order.
- 11.5. Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words shall prevail. If a Bidder does not accept the correction of errors, the bid will be rejected and its EMD may be forfeited.
- 11.6. The Purchaser may waive any minor non-conformity or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.
- 11.7. Prior to the detailed evaluation, the Purchaser will determine whether each bid is complete and is substantially responsive to the Tender Document. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the Tender Document without material deviations, exceptions, objections, conditionality or reservations. A material deviation, exception, objection, conditionality, or reservation is:
- (a) One that limits in any substantial way the scope, quality, or performance of the Equipment; \mathbf{OR}
- (b) One that limits, in any substantial way that is inconsistent with the Tender Document, the Purchaser's rights or the successful Bidder's obligations under the Contract: and
- (c) One that the acceptance of which would unfairly affect the competitive position of other Bidders who have submitted substantially responsive bids.
- 11.8. If a bid is not substantially responsive, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

The Purchaser's determination of bid responsiveness will be based on the contents of the bid itself and any written clarifications submitted by the Bidder.

12. CLARIFICATION OF BIDS

During the bid evaluation, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the price or substance of the bid shall be sought, offered or permitted.

13. EVALUATION OF RESPONSIVE BIDS

The Purchaser will evaluate the bids that have been determined to be substantially responsive.

14. CONTACTING THE PURCHASER

- 14.1. 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 bid, it shall do so in writing.
- 14.2. If a Bidder tries to directly influence the Purchaser or otherwise interfere in the bid evaluation process and the Contract award decision, his bid shall be rejected.

15. AWARD CRITERIA

- 15.1 Purchaser will award the Contract to the Bidder, whose bid has been determined to be substantially responsive and evaluated as the lowest quote.
- 15.2. The Institute reserves the right to buy different items/quantity from different bidders considering price of individual/group of equipment or any other factors as decided by the Committee.

16. PURCHASER'S RIGHT TO ACCEPT/REJECT BIDS

- 16.1. The Purchaser reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders.
- 16.2. The Purchaser reserves the right to negotiate with the Bidder, whose bid has been evaluated as the lowest quote.

17. AWARD OF PURCHASE ORDER

- 17.1. Prior to the expiration of the period of bid validity, the Purchaser will issue the Letter of Intent / Purchase Order to the successful Bidder in writing.
- 17.2 The Purchase Order will constitute the foundation of the Contract.
- 17.3. Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, the Purchaser will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary arrangements shall be provided by the supplier or its authorized agents.

18. CONTRACT AGREEMENT

- 18.1. Within **FIFTEEN (15)** days of receipt of the Purchase Order, the successful Bidder shall sign and date its copy on each page and return it to the Purchaser, along with the Performance Security.
- 18.2. Copy of Purchase Order duly signed and dated by the successful Bidder on each page shall constitute the Contract Agreement.

19. PERFORMANCE SECURITY

- 19.1. The performance security shall be submitted within FIFTEEN (15) days of receipt of the material by the purchaser. The successful bidder shall furnish the Performance Security equal to 5% of the order / contract value (excluding the value of annual maintenance charges). The Performance Security shall be valid all along the warranty period and shall extend upto sixty (60) days after the date of completion of warranty period. It shall be ensured by the successful bidder that the validity of the Performance Security submitted is extended depending on the date of commencement of the Warranty.
- 19.2. The performance security shall be a bank guarantee (in the format as provided in Annexure-VI of the biding documents) issued by the Indian Scheduled bank acceptable to the Purchaser or a Demand Draft favouring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD.

- 19.3. In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal:
 - Foreign principal's proforma invoice indicating the commission payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent.
 - Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.
- 19.4. The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration.
- 19.5. Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the Purchaser may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.

20. CONTRACT DOCUMENTS

- 20.1. All documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.
- 20.2. The order of precedence of the Contract documents shall be as follows:
 - (i) Contract Agreement
 - (ii) All other Forms
 - (iii) Equipment and their requirements
 - (iv) Supplier's Bid
 - (v) Tender Document

21. AMENDMENT TO CONTRACT

No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract and is signed by a duly authorized representative of each party to the Contract.

22. SUPPLIER'S RESPONSIBILITIES

- 22.1. The Supplier's obligations involve:
 - (a) Supply of equipment/items given in Tender Document.
 - (b) Making operational, the equipment (installation, commissioning, testing and validation of the equipment).
 - (c) Development of test methods and applications.
 - (d) Training, at the cost of Supplier, of personnel in operation, day-to-day maintenance and troubleshooting of the Equipment.
 - (e) Supply of Material (instruction/operation/service/maintenance manuals including drawings & circuit diagrams and application notes), Calibration Certificates (where applicable, traceable to national/international standards) and any other documents specified in the Contract.
- 22.2. The Supplier shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items, services and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for installation, commissioning, integration and validation of equipment as if such work and/or items and materials were expressly mentioned in the Contract.
- 22.3. The Supplier shall comply with all laws in force in India. The laws will include all national, provincial, municipal or other laws that affect the performance of the Contract and are binding upon the Supplier. The Supplier shall indemnify and hold harmless, the Purchaser

from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature, arising or resulting from the violation of such laws by the Supplier.

23. TIME FOR SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF THE EQUIPMENT

- 23.1. The Supplier shall supply the equipment within the period specified in the tender document i.e. within FOUR weeks of signing the purchase order or within the period mutually agreed between purchaser and supplier.
- 23.2. The Supplier shall thereafter proceed with the installation, commissioning, integration and validation and demonstrate operational acceptance of the equipment within the period specified. The equipment shall be installed and commissioned by the successful bidder within 20 to 25 days from the date of its receipt.
- 23.3. The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.
- 23.4. In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the Purchaser has all the right to purchase the item/equipment from other sources on the total risk of the Supplier under the risk purchase clause.

24. TERMS OF PAYMENT

- 24.1. No Advance payment will be made for indigenous purchase. For indigenous equipment, 100% payment will be released after satisfactory delivery, acceptance, installation, commissioning, integration and validation of the equipment and against the installation report/certification provided jointly by the supplier (technical representative involved in the process of installation) and the faculty in-charge of the user department/facility.
- 24.2. For imported equipment, a Letter of Credit (LC) shall be opened for 100% CIP price on receipt of the acknowledgement of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order, as per the clause 19 above and installation, commissioning, integration, validation and installation report/certification jointly given by the end user and the supplier.
- 24.3. Payment for annual maintenance contract after the warranty period shall be released at the end of six months/one year after the expiry of warranty period, subject to the GFR 2017/ Government of India norms.
- 24.4. If any time before the delivery of the equipment, it is found that the same equipment had been offered to another party in India at a lower rate, payment shall be restricted to the extent of such lower rate and the Supplier shall be liable to pay the Purchaser the difference in two rates i.e. excess charged over such lower rate, if payment had been made by the purchaser. The purchaser will look into a reasonable past period to ensure this.

25. TAXES AND DUTIES

The Supplier should ensure payment of all taxes, duties, levies and charges assessed by all municipal, state or national government authorities, in connection with the Goods and Services supplied under the Contract.

26. PRODUCT UPGRADES

The Supplier shall continue to support and maintain the version/model of the Equipment supplied by upgrading the software and the hardware as and when amendments are carried out in the existing version or the product is upgraded. Whereas upgrades to the software shall be supplied free of cost, the Supplier may charge for upgrade in hardware provided it is of major nature. An upgraded higher version of the instrument and software related with the instrument shall be supplied.

27. PENALTIES

27.1. If the Supplier fails to complete any of the activities in accordance with the time specified for it, or any extension of the time granted by the Purchaser, the Supplier shall pay to the Purchaser, penalties at the rate specified in the Tender document.

27.2. The Purchaser reserves the right to terminate the contract if the Supplier defaults on any of the time limits by more than FOUR weeks.

28. DEFECT LIABILITY

- 28.1. The Supplier warrants that the equipment, including all sub-assemblies and components provided, shall be free from defects in the design, engineering/manufacturing, workmanship and performance that prevent the Equipment and/or any of its sub-assemblies and components from fulfilling the equipment requirements or that limit in a material fashion the operation, reliability, accuracy, sensitivity and precision of the Equipment, its sub-assemblies and components. Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract.
- 28.2. The warranty period shall commence from the date of validation/installation of the equipment and shall extend for the length of time specified in the tender document supra.
- 28.3. If during the warranty period any defect found in the equipment, the Supplier shall promptly, at its sole cost, repair or otherwise make good such defect as well as any damage to the equipment caused by such defect. Any defective equipment, sub-assembly or component that has been replaced by the Supplier shall become the property of the Supplier and the new substituted/replaced equipment in good condition shall become the property of the purchaser.
- 28.4. Validation of the equipment shall be carried out by the Supplier each time a major repair is carried out in the equipment during the warranty period.
- 28.5. Response time for attending to defects shall be 24 to 48 hours, after they are reported to the Supplier or its designated service agent. If the equipment cannot be used for more than TWO working days by reason of such defect and/or making good of such defect, the warranty period for the equipment shall be extended by a period equal to the period during which the equipment could not be used by the Purchaser because of such defect and/or making good of such defect.

29. INTELLECTUAL PROPERTY RIGHTS, WARRANTY AND INDEMNITY

- 29.1. The Supplier hereby represents and warrants that the equipment as supplied, installed and commissioned along with its application software and copying of manuals and other documents provided to the Purchaser in accordance with the Contract does not and shall not infringe any Intellectual Property Rights held by any third party.
- 29.2. The Supplier shall indemnify and hold harmless the Purchaser from and against any and/or all losses, liabilities and costs (including losses, liabilities and costs incurred in defending a claim alleging such a liability), that the Purchaser may suffer because of any infringement or alleged infringement of any Intellectual Property Rights.
- 29.3. The offer should clearly specify the warranty or guarantee period for the machinery/equipment. Any extended warranty offered for the same shall be mentioned separately.
- 29.4 Up-time Guarantee: The Supplier should provide up-time guarantee of 95% [24 (hrs) X 7 (days) X 365 (days)] basis during warranty period.
- 29.5 Downtime Penalty Clause: The Supplier should provide up-time guarantee of 95% (24 hrs/day basis) both during warranty. If downtime exceeds the 5% limit, extension of warranty period will be twice the excess down time period.

30. EFFECT OF FORCE MAJEURE

- 30.1. If the Supplier is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the Purchaser in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fifteen (15) days after the occurrence of such event.
- 30.2. The Supplier, when affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to Purchaser's right to terminate the Contract.
- 30.3. No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall:
 - (a) Constitute a default or breach of the Contract;

- (b) Give rise to any claim for damages or additional cost or expense occasioned by the delay or non-performance.
- 30.4. If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than THIRTY days or an aggregate period of more than SIXTY days on account of one or more events of Force Majeure, the Purchaser shall have the right to terminate the Contract by giving a notice to the Supplier.

31. EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE EQUIPMENT

- 31.1. The time limit for supply, installation & commissioning, integration & validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:
- (a) Any occurrence of Force Majeure;
- (b) Any other matter specifically mentioned in the Contract;
- By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.
- 31.2. The Supplier shall assist the institute in relocation/shifting of the equipment from the temporary campus to transit/permanent campus at free of cost and by utilizing their resources (for loading, unloading and transportation). Any such relocation/shifting shall be within THREE years from the date of installation of the equipment.

32. ASSIGNMENT

The Supplier shall not, without the prior written consent of the Purchaser, assign to any third party, the Contract or any part thereof.

33. GOVERNING LAW

The Contract shall be governed by and interpreted in accordance with the laws of India.

34. SETTLEMENT OF DISPUTES

Any dispute or claim arising out of/relating to this Contract or the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad.

- **35.** The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in **Annexure-VII.**
- **36.** IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.

REGISTRAR

Name of the Facility: RF Anechoic Chamber with Frequency Range from 0.8 to 40 GHz with VNA interfacing for Automatic 3D pattern measurement

Purpose:

S. No	Main item description	Qty.	Unit price (Approx.) (INR)	Total Amount (Approx.) (INR)
1	RF Anechoic Chamber with	1		
	Frequency Range from 0.8 to 40			
	GHz with VNA interfacing for			
	Automatic 3D pattern			
	measurement. It will be used for			
	measurement of Antenna			
	automated 3D radiation pattern			
	from 0.8 to 40 GHz frequency			
	for defense, space and			
	biomedical applications			

Techn	iical Specification:						
S.No	Name of the Equipment	Technical Specification					
1		Anechoic Chamber (in Room)					
		Size of chamber: 5.5 x 2.5 x2.5 meter (LWH)					
		Shielding Effectiveness: 60-80 dB					
		Quiet Zone level : -40 dB					
		1. Frequency of operation: 800 MHz to 40 GHz					
		2. Construction of chamber is of Frame skeleton structure made up of square hollow pipes &thick Galva-					
		nized Iron sheet, Welded at joints & overlapped.					
		3. All four Walls & Roof & Floor covered with absorbers. Models FU 4, FU 6, FU 9, FU 12, FU 18,					
		Corner & Walk On Absorbers					
		4. Door Size : 3 ft x 6 ft (WH)- Triple latch mechanism					
		5. Connector Panel (4SMA, 2N):- Female to female adapters – 01Nos					
		6. Power Line Filter (16 A, 230 VAC) – 01Nos					
		7. Internal Lightening, Power sockets, switches &					
	Anashaia Chamban (in	Wiring (2 lights, One set of Extension Board &					
	Anechoic Chamber (in	Wiring)					
	Room)	8. Earthling: From single pit two points connection to chamber – 01 Job					
			01				
		9. Honey comb air vents with frame size: 300 x 300	01				
		mm (required for air ventilation for air inlet & outlet) – 02Nos					
		10. Installation & Testing – 01 Job					
		11. Fire Alarm, Fire Extinguisher, 1.5 Tonner AC					
		MicrowaveAbsorbers					
		1. P.U. Foam based absorber tested as per IEEE STD.					
		1128.					
		2. All Absorbers to be used are Fire Retarded: Passes					
		NRL-8093, USA test 1, 2 & 3 With Zero Halog					
		Means.					
		3. Chamber Construction Details-					
		4. PAN Type Shielded structure.					
		5. 2mm thick hot galvanized sheets used for PAN manufacturing.					
		6. Cutting and bending by Laser / CNC machines.					
		7. Radiography quality TIG welding of comers of pan-					
		els.					
		8. Joining of PANs using Rail Road wire mesh based					
		metallic Gasket.					
		9. Shielded Window-					
		10. Windows are designed to open approx.180					
		11. Rail Road gasket used between the window frame					

Transmitter Detail a) Mechanical alignment. b) Height same as Receiver centre. Centrally located. c) Manual Height adjustable. d) Maximum load Capacity: 10kg Receiver 3 Axis Positioner System: 01 (Azimuth, Elevation & Polarization Movement) a) The System has the ability to adjust the antenna position in Polarization, Azimuthal & elevation directions. Azimuthal from 0 to 360 degree; Elevation from 0 to 360 degree; Polarization from vertical to horizontal. b) Angular Motion can be done in different step sizes and it is user selectable. c) Wide range of step sizes like from 0.18 deg to 0.9, 1.8, 9, 18any angle in multiple of 0.18 deg. d) Elevation Movement will be -90 to +90 degree. e) Polarization Movement Vertical & Horizontal. f) Maximum load Capacity: 6kg Position B: 1 Axis-2D-Radiation Pattern Measurement System (Automatic Measurement with single software command) Positioner System:R-X & T-X Positioner System a) Automatic 1 Axis Receiver positioner system (Azimuthal rotation only)			and the basic Pan structure	
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imuthal rotation only)				
b) Minimum step angle of 0.18 degree.			b) Minimum step angle of 0.18 degree.	
c) Interfaced with VNA & PC for automatic measure-			c) Interfaced with VNA & PC for automatic measure-	
ments. d) Transmitter positioner system remains fixed with				
provision for mounting of antennas				
Measurement:				

			1
		 a) VNA interfacing for fetching data from VNA with moment of positioned b) 1 Axis positioning system Control with PC. c) Both positioner & VNA will operate through software. d) Measuring the S-Parameters(S₁₁,S₁₂,S₂₁ and S₂₂), Gain, e) Beam width, 2-D, radiation pattern f) Graph plotting & data saving after each test. Report & Data Analysis: a) The data will be saved in excel format in the PC. b) The Plots can also be saved in desired format. c) User can retrieved the past data on the software for analysis. T-X & R-X POSITIONER SYSTEM: Mechanical alignment. a) Height same as Receiver centre. Centrally located. b) Manual Height adjustable. c) Maximum load Capacity: 10kg Receiver Details: 1Axis Positioner System (Azimuth Movement only) a) The System has the ability to adjust the antenna position in Azimuthal direction only. Azimuthal from 0 to 360 degree. b) Angular Motion can be done in different step sizes and it is user selectable. 	
		c) Wide range of step sizes like from 0.18 deg to 0.9, 1.8,9,18any angle in multiple of 0.18 deg.	
		d) Maximum load Capacity : 6 kg	
3		Specification: a) Antenna Type: Double Ridged Broadband Horn Antenna b) Frequency: 800MHz to 40GHz c) 0.8 GHz to 40GHz VSWR: 2:1; High Gain:3-22 dBi d) RF Counter: N-Female Connector e) Customized Tripod Antenna Mounting Stand, Variable height adjustment from fixed base height 1000mm to 1500mm.	02
	Broadband Horn Antenna	Test Equipment a) Cable: 8M DC to 40 GHz Cable b) Test Distance: 3m c) HD Camera with LCD for monitoring inside chamber positioner system: 01 set d) movement- 01 set	
4	Environmental Condition	 a) Test Site Temperature: 25°C b) Test Site Humidity: 65% c) Control Room Temperature: 23°C d) Control Room Humidity: 55% 	

PRE-QUALIFICATION CRITERIA FOR BIDDERS

Only those bidders fulfilling the following criteria should respond to the tender.

- 1. Bidder should be either an Original Equipment Manufacturer (OEM) or designer or authorized distributor of an OEM of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement allied field.
- 2. The bidder should be a company registered under the Companies Act, 1956/2013 OR a Limited Liability Partnership / a registered partnership firm OR a sole-proprietorship entity. Appropriate Registration incorporation certificate must be submitted.
- 3. The bidder must have a registered office and/or service center in Karnataka/Tamil Nadu/Telangana/Andhra Pradesh/Maharashtra or Kerala. Certificate of registration for the offices to be provided. Details about scope of service activities provided by the service centres must be provided. The contact details of the service engineers must be provided.
- 4. The bidder must also have a service center in Karnataka/Tamil Nadu/ Telangana/Andhra Pradesh/ Maharashtra or Kerala. Certificate of registration for the centers to be provided.
- 5. The bidder must be in existence in the business of Supply and Maintenance of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement for a minimum period of three previous financial years (2016-17, 2017-18 and 2018-19). Documentary evidences of experience must be provided.
- 6. The bidder should have implemented at least One order of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement during previous three financial years (2016-17, 2017-18 and 2018-19). Copies of the most recent purchase orders and certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished.
- 7. The bidder must provide detailed specification of each equipment/item. Model numbers, data sheets and brochures must be included for each quoted equipment/accessories/item. Specifications corresponding to quoted model number must be available publicly via OEM's website for scrutiny. If not, bid can be disqualified on technical grounds.
- 8. The Institute reserves the right ask for photographs/CAD drawings/ design proofs to satisfy themselves of the proven capabilities if the system being offered. The bidder must provide these details with in two working days of receiving such a request via email. Decision regarding technical compliance of the bidder can be taken on the basis of this information.
- 9. Compliance sheet for the technical specification and OEM Brochure have to be attached along with the Technical bid. Vendor has to fill the compliance sheet and mention page number or reference number in OEM brochure. Unfilled / partially filled sheets lead to disqualification.

TECHNO-COMMERCIAL PARAMETERS

(To be enclosed in a separate sealed cover with the Technical Bid) PART-I

1. Company Profile

- a) Name
- b) Postal address of the registered office
- c) Name & Designation of CEO / Director
- d) Nature of Business (Proprietary / Partnership/ any other mode)
- e) Email ID & Contact number(s) of CEO / Director
- f) No. of years of operations in India
- g) Year of Establishment
- h) Location of offices in India / abroad

2. Alliances for the purpose of this Bid

- a) Details of alliance(s)
- b) Type of alliance(s)

3. Experience/Credentials

- a) No. of similar units installed in India
- b) No. of similar units installed in Karnataka/Tamil Nadu/ Telangana/Andhra Pradesh or Kerala or any other nearby city/town
- c) List of satisfied clients in India
- d) Testimonials from atleast three clients shall be attached

4. Service Support in India

- a) Track record of service provided with supporting documents during last 3 years
- b) Location of service centers
- c) Number of trained service engineers
- d) Number of trained service engineers exclusively dedicated to each equipment offered
- e) Number of trained service engineers for the equipments offered stationed in Karnataka/Tamil Nadu/ Telangana/Andhra Pradesh or Kerala
- f) Number of application specialists
- g) Whether the OEM makes available any service
- h) Support in India

5. Availability of spares in India

- a) Whether the service set up maintains stock of essential spares in India
- b) Lead time for supply of essential spares

PART-II

a) Postal address			
b) Telex / Fax nu	ımber		
c) Telephone (La	andline)		
d) Mobile No.:			
e) Email address	:		
f) Type of firm:	Propriety/ Private/ Priva	ite Ltd/ MNC/ Coope	erative /Govt. undertaking
g) Name of the F	Proprietor /Partners		
h) Registration N	lo.		
i) Year of comm	encement of Manufactu	ring the equipment	
j) PAN			
k) TIN			
l) GST Number			
2. Details of EMD o	f Rs. 60,000/- as ment	ioned in Clause No.	5.3
DD No.:	Date:	Amount:	Bank/Branch:
	rnover (2016-17, 2017- be certified by Competer		
4. Has the firm ever 'yes' the details the		isted by any Govt. (Organization/Dept.? If
		Signature _	
		Name	
Date:	Place:	Designation	·
Seal of Company _			
Note:			

N

- 1. Compliance Statement to specifications of the equipment to be provided by the tenderer
- as in **Annexure-IV**.

 2. All equipment must operate at 230V/50 Hz single phase and/or equivalent three phase electrical power.
- 3. Quoted model shall be in accordance to the geographical location.
- 4. All the above details shall be related to the vendor for the items quoted.

COMMERCIAL BID

(To be enclosed in separate sealed cover)

1. The price of the equipment, whose details are available in the **Annexure-I** is to be given in the format mentioned below:

Sl. No.	Name of the Equipment	No. of Units/ Sets	Cost per Unit/Set	Total Cost
1	Supply, Installation, Testing and Commissioning of RF Anechoic Chamber With Frequency Range From 0.8 To 40 Ghz With VNA Interfacing For Automatic 3D Pattern Measurement	As per Annex- I		
	Total Amount			
	Taxes: GST @ 5%			
	Grand Total			
Amount i	n Words:	•		•

- 2. The quote should include STANDARD WARRANTY of THREE YEARS from the date of commissioning/installation of the equipment. EXTENDED WARRANTY, if any, shall be indicated clearly in the bid and shall be over and above the STANDARD WARRANTY.
- 3. Quotes not indicating the STANDARD WARRANTY, as per the above requirement shall be REJECTED outright.

Note:

- a) Rates quoted shall be exclusive of taxes and duties.
- b) Taxes and duty component should be mentioned separately.
- c) Maximum educational discount as could be offered should be mentioned.
- d) Price quoted for equipment must include all costs associated with packing, transportation, Insurance, delivery of equipment, loading and unloading on DOOR DELIVERY basis to the Transit Campus of IIT Palakkad including its installation, commissioning, integration, testing and validation. Duties and Taxes must be mentioned separately.
- e) Concessional GST@ 5% will be paid extra against GOI Notification No. 45 & 47/2017, dated 14.11.2017 against Proforma Invoice.
- f) TDS @ 2% will be deducted as per CBEC Circular No.65/39/2018-DOR dated 14.09.2018.
- g) Do not quote the optional items or additional items unless otherwise mentioned in the Tender document / specifications.

Signature and Seal of the Bidder

COMPLIANCE STATEMENT (Part of Technical Bid)

The vendor shall,

- 1. Prepare, sign and submit the Compliance Statement of the specification of the equipment in the format given below along with the technical bid in the company letter head.
- 2. Submit separate Compliance Statement of specification sheets for each item/equipment.
- 3. Ensure that the component number and heading in the Technical Specifications is clearly mentioned in the document. If there are any deviations from the specifications mentioned by IIT Palakkad, the vendor should clearly indicate the deviations and give reasons for the deviation with proper justification.
- 4. Provide the technical leaflet/literature/catalogue or any relevant document for all the quoted equipment to IIT Palakkad. The information provided in the compliance statement without supporting documents will not be considered for the evaluation of the technical bid and will be treated as non-compliance and may lead to the disqualification of the technical bid.
- 5. Clearly respond to every requirement given in the technical specifications. Lack of clarity may be considered as lack of information and may subsequently lead to disqualification of the technical bid.

Format of Compliance Statement:

Item	IIT	Specificati	Vendor's	Deviation, if	Page no. of
No.	Palakkad's	ons of	specification	any,	relevant
	technical	model	complies	to be	specification for
	specification	quoted by	with IIT	indicated in	the
	of	the	Palakkad's	unambiguo	quoted model in
	components	vendor	technical	us	the
	as given in		specification?	terms	technical
	Annexure-I		(YES/ NO)		manual/leaflet
			·		

FORMAT OF PERFORMANCE SECURITY

1. This deed of Guarantee made this day of (hereinafter called the "Bank") of the one part, a	between Bank of hand Indian Institute of Technology Palakkad
(hereinafter called "the Purchaser") of the other part.	
2. Whereas the Purchaser has awarded the contra	act for Supply, Installation, Commissioning,
Integration and Validation of (hereinal contract) to (hereinal contract)	name of the equipment) (hereinafter called the
contract) to (hereinate	fter called the Supplier); (Name of the Supplier)
3. AND WHEREAS the Supplier is bound by the	
Performance Security for a total amount of Rs.	(Amount in figures and words).
4. Now, I/we the undersigned, being fully authorized to	
of and in the name ofsaid Bank will guarantee the Purchaser the full amoun	_(Full name of Bank), hereby declare that the
said Bank will guarantee the Purchaser the full amoun	t of Rs (Amount in figures and
words) as stated above.	
5. After the Supplier has signed the aforementioned Co	
to pay the Purchaser, any amount up to and inclusive	-
order from the Purchaser to indemnify the Purchaser	
defects or shortcomings of the Supplier under the Con	
shortcomings are actual or estimated. The Bank will	
immediately on demand without delay without reference	
previous notice or of judicial or administrative proced	
the Bank the liability or damages resulting from any	9 11
Bank shall pay to the Purchaser any money so demand by the Supplier in any suit or proceedings pending be	
under this guarantee shall be absolute and unequivocal.	
6. This Guarantee is valid for a period of thirty six mo	
which this Guarantee will be valid must be for at lea	
expiry date of warranty period).	ist unity (30) days longer than the anticipated
7. At any time during the period in which this Guarante	ee is still valid if the Purchaser agrees to grant a
time extension to the Supplier or if the Supplier fa	
completion as stated in the Contract, or fails to dischar	
under Para 5 above, the Bank shall extend this Guaran	
time on demand by the Purchaser and at the cost of the	-
8. The Guarantee herein before contained shall not be a	* *
Bank or of the Supplier.	<i>y y E</i>
9. The neglect or forbearance of the Purchaser in enfor	cement of payment of any moneys, the payment
whereof is intended to be hereby secured or the giving	
shall in no way relieve the bank of its liability under the	is deed.
10. The expressions "the Purchaser", "the Bank" and	"the Supplier" herein before used shall include
their respective successors and assigns.	
In witness whereof I/We of the bank have signed and	I sealed this guarantee on the day of
(Month & Year) being herewith duly auth	norized.
For and on behalf of the Bank.	
Signature of Authority	
-	Davisordiana
Name of the Official Name:	Designation:
Stamp/Seal of the Bank:	
Signed, sealed and delivered for and on behalf of the	Bank by the above named in the
presence of:	
Witness 1	Witness 2
Signature	Signature
Signature Name	Signature Name
1 THILLY	1 1 MIII

Address

Address

ANNEXURE-VII

DECLARATION

We hereby undertake th	nat there are	pages, serially numbered, in the
submitted tender including the	supporting documents. (Ple	ease serially number all the pages
including blank page, if any).		
We have submitted our	principal's exclusive auth	norization letter which is specific
for this tender No	dated	
		Signature and Seal of the Bidder

ANNEXURE-VIII

FALL CLAUSE NOTICE CERTIFICATE

This is to	certify that we have offered	the maximum	possible discount to you in
our Quotation No	dated	(Please do 1	not reveal the prices here,
which will lead to out	right rejection of your bid).		

The prices charged for the Stores supplied under tender should under no event be higher than lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt, /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this.

In case, if the price charged by our firm is found to be more, **IIT Palakkad** will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

Signature and Seal of the Bidder

Note:

This letter of authority should be on the <u>letterhead of the quoting firm</u> and should be signed by a person competent and having the power of attorney to bind the same.