



**NATIONAL INSTITUTE OF TECHNOLOGY
RAIPUR – 492 010, CHHATTISGARH**

**Open(Advertised) Tender for Purchase of Equipments for Electronics and
Communication Engineering(Two Bid System)**

Department: **Electronics and Communication Engineering**

Enquiry No: NITRR/S&P/ET/OT/2019/1469

Date:18/09/2019

Important Dates

To

Event	Date	Time
Last Date of submission of quotation	15/10/2019	Upto 18:00 Hrs
Technical bid Opening date	17/10/2019	At 16:00 Hrs
Price (financial) bid Opening	To be Informed to technically successful bidder by mail and phone.	

Dear Sir,

We intend to purchase the commodities specified in this document and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly submit your offer with prices and complete terms within the time mentioned above through our e-tender portal www.tenderwizard.com/NITR .Tender will be accepted online only & no other mode will be accepted.

Yours sincerely,

Registrar
National Institute of Technology,
Raipur

Enclosed:

- (1) Bid Document - Instruction to bidder - containing detail terms and conditions.
- (2) Acceptance of terms & conditions of tender-Annexure 1
- (3) List of Equipment's/machines/commodity etc.- Annexure 2
- (4) Technical Specification – Annexure 3
- (5) Technical Compliance Format- Annexure 4
- (6) Price Bid Format in INR – Annexure 5
- (7) Price Bid Format in of imported items in currency other than INR -Annexure 6
- (8) Deviation statement form - Annexure 7
- (9) Bidder information & check list- Annexure 8

BID DOCUMENT

INSTRUCTION TO BIDDER

1. Please go through the enclosed “bid document” carefully for other bidding instructions.
1. **IMPORTANT NOTE:** Being a Two-Part Tender (techno-commercial and price bid), fax quotations will not be accepted. Please ensure your offers are received on or before tender due date and time. Bidder/ Tenderer are requested to download the tender documents from our website (www.nitr.ac.in) & e-tendering portal i.e. www.tenderwizard.com/NITR and submit tender fee of amount ` 1180/-(inclusive of GST) through online mode in our e-tendering portal i.e. www.tenderwizard.com/NITR. **Kindly note that if any bidder wants to quote for more than one item in the tender then he has to pay tender fee only once at first and for later he will be exempted to pay tender fee for another items(have to select exempted option on payment page). If any vendor paid more than one tender fee in case of multiple items then the excess payment will not be reversed, so please be careful while submitting the bid.**
 - **Quotations received without tender fee will not be considered.**
 - No request for extension of the due tender date will be considered.
 - In the event any date indicated above is declared as holiday, the next working day at Institute shall be considered as the due date for receiving & opening of tenders.
 - The bids shall be opened on date and time as mentioned above. The bidders may send their authorized representatives to attend the bid opening, if they so desire.
 - Bids received after the deadline of receipt indicated above, shall not be taken in to consideration.
 - **(a) In the 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. In the event of simultaneous bidding by both Principal/OEM and Indian agent; the bid submitted by the Indian agent will not be considered.**

(b) 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 same item/product. In the event, an agent submits the bids on behalf of more than one Principal/OEM for the same item in same tender, then all such bids will not be considered.
2. The bid should remain valid for a period of **180 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation. Validity period may also be extended without change in bid prices ,if required on mutually agreed basis only.
3. **Submission of bids: Bidders have to submit their bid through E-tendering mode only at website www.tenderwizard.com/NITR.**

4. Financial Bid (Microsoft Excel File) is to be downloaded from website www.tenderwizard.com/NITR and then is to be filled, saved and uploaded (through digital signature) on the same website and not to be submitted in hard copy at all.
5. The Financial Bid (after filling the rates) should neither be scanned & uploaded, nor, the hard copy of the same should be submitted to NIT Raipur office
6. **The complete Tender document can be viewed and downloaded only from the website(www.tenderwizard.com/NITR) & www.nitr.ac.in during the tender sale period. The intending bidders should submit the tender documents sale price & tender processing fee, through e-payment, at the time of making online request.**
7. Complete tender papers, duly accompanied with receipts of e-payment of tender cost, EMD shall be received online as per date and time mentioned. Tender shall be opened through Etendering systems, in presence of bidders or their authorized representatives.
8. Complete tender documents must be submitted as per schedule **through E-Tendering mode only at website www.tenderwizard.com/NITR .**
9. Tenderers are advised to complete all submission related work well before Time and date for submission of tender online. Any request for modification in the time/date of submission of tender due to tenderer's failure to submit his offer, will not be accepted.
10. **To participate in the E-tender, it is mandatory for the bidders to have user ID & password, which has to be obtained by submitting an annual registration charges of Rs. 2000/- +GST @ 18% to ITI, through e-payment. Also it is mandatory for all bidders to have class 3 digital signature certificates from any of theCCA (Controller of Certifying Authority, India) or if any support required on DSC, Please contact to Helpdesk No. 011-49424365.**
11. The bid along with necessary documents should be uploaded only on the www.tenderwizard.com/NITR portal as per guidelines mentioned in the portal. Tender have to be submitted only online at <https://www.tenderwizard.com/NITR> . All documents in support of eligibility criteria etc. are also to be scanned and uploaded along with the tender documents. Tender sent by any other mode will not be accepted.
12. **Clarification of bidding documents:** If a prospective bidder requires any clarification in regard to the bidding documents, they may mail to storenpurchase@nitr.ac.in (for commercial terms) and hod.etc@nitr.ac.in, smajumdar.etc@nitr.ac.in (for Technical queries) at least 15 days before the deadline for receipt of bids.
13. **Amendment of Bidding Documents**
 - o Corrigendum, if issued any for the tender, shall form part of the Tender Document. Corrigendum will be posted on NIT RAIPUR website (www.nitr.ac.in) & www.tenderwizard.com/NITR portal. Bidders/Tenderers are requested to visit NIT RAIPUR website regularly and note the corrigendum / amendments to the tender without fail and submit the offer accordingly. NIT RAIPUR will not be responsible for ignorance of corrigendum.

- o At any time prior to the deadline for submission of bids, the Institute may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder/Tenderer, modify the bidding documents by amendment. The same would also be hosted on the website of the Institute and all prospective bidders/tenderer are expected to surf the website before submitting their bids to take cognizance of the amendments. Bidder/Tenderer who has submitted bids before publishing the amendment may revise their bid incorporating the amendments before the last date of tender.
 - o In order to allow prospective Bidder/Tenderer's reasonable time in which to take the amendment into account in preparing their bids, the Institute, at its discretion, may extend the deadline for the submission of bids and host the changes on the website of the Institute.
14. **Custom duty:** The NIT Raipur has registration in Department of Scientific & Industrial Research (DSIR).
15. **Bid Security (BS)/ (Earnest Money, EMD)**
16. The Bidder/Tenderer shall furnish, as part of its bid, a bid security (BS). **The EMD/Bid security should be submitted online only through e-tendering portal i.e. www.tenderwizard.com/NITR.** The EMD amount will be as follows:-

S.N.	Name of Equipment	EMD Amount
1	Advanced DSP Training Tool Kit	Rs.7500/- (Rupees Seven Thousand Five Hundred Only)
2.	Microwave Trainer Kit	Rs. 9000/- (Rupees Nine Thousand Only)
3.	Microwave Test Bench	Rs. 12600/- (Rupees Twelve Thousand Six Hundred Only)

- In the case of foreign bidders/tenderers, the BS shall be submitted either by the principal or by the Indian agent and in the case of indigenous bidders/tenderers; the BS shall be submitted by the manufacturer or their specifically authorized dealer/Bidder/Tenderer.
- The bid security shall be in Indian Rupees & should be paid only through e-payment in tenderwizard portal i.e. www.tenderwizard.com/NITR.
- The bid security should be submitted in its original form. Copies shall not be accepted.
- *Any bid without EMD or bid not secured in accordance with above will be rejected by the Institute as non-responsive.*
- The bid security of unsuccessful Bidder/Tenderer will be discharged /returned as promptly as possible but not later than 30 days after the expiration of the period of bid validity or placement of order whichever is later.
- The successful Bidder/Tenderer's bid security will be discharged upon the Bidder/Tenderer furnishing the performance security.
- **The firms registered with DGS&D & NSIC, if any, are exempted from payment of BS**

provided such registration includes the item they are offering which are manufactured by them and not for selling products manufactured by other companies.

- The firm must ensure their eligibility for exemption from submission of EMD & Tender Fee, in case of submission of EMD & Tender Fee Exemption Certificate i.e. NSIC, MSME etc. If exemption certificate not found suitable for exemption then the bid will not be considered in any case.
- The bid security may be forfeited:
 - (a) If a Bidder/Tenderer withdraws or amends or impairs or derogates its bid during the period of bid validity specified by the Bidder/Tenderer on the Bid Form; or

17. Sealing and Marking of Bids:

In a two-bid system All Bidders/Tenderers are requested to follow carefully the following instructions before preparing their offer.

Part I: Technical& Commercial Bid

Part - (a) Technical

- i. This part should contain detailed specifications of the items quoted by you along with technical literature and leaflets.
- ii. A compliance statement showing the compliance of the item quoted by you with that of item tendered by us should be prepared and enclosed to this.
- iii. Any other information called for in the tender related technical and commercial specifications can also come in this part.
- iv. **Prices should NOT be indicated in this cover.**

Part - (b) Commercial terms: (WITHOUT PRICE)

- i. The commercial terms applicable for the items quoted by you should be indicated in this part.
- ii. If any compliance statement is called for the commercial terms/contractual terms and conditions, the same is to be attached in this part.
- iii. ***Prices should NOT be indicated in this part. However, a copy of the price bid (without prices) must be enclosed in this part to enable to understand whether all the items required to be quoted by you have been quoted in the price bid.***
- iv. The Commercial terms such as delivery terms, delivery period, payment terms, Warranty, validity of the offer, installation & commissioning, duties and taxes etc., shall come into this.
- v. The required EMD should be enclosed.
- vi. The Tenderer/ bidder need to submit the following certificates along with the Tender Documents to confirm their eligibility in this part :
 - Proof of establishment of Firms/shop/business/ manufacturing unit etc. and Dealership certificate from the principals etc.
 - Proof of registration with any other central government organization (if any)
 - Photocopies of purchase orders received from any central govt. organization to the firm (if any).

- Goods & Service Tax registration in REG-06 Format certificate should be enclosed
- The bidder should enclosed proof of turnover by way of Audited Balance Sheet/Auditor's certificate, if required.
- The bidder should Photocopy of PAN card issued in the name of the bidder's firm.

Note:

- Technical Specifications and terms & conditions as above should be very clearly reflected item-wise with reference to the items called for in the tender.
- Please note that the PRICE SHOULD NOT BE indicated in this part.
- **The bidders must have to upload acceptance of tender terms & conditions duly sealed & signed in e-tendering portal(As per Annexure-I).**

Part II: Price Bid

The prices applicable for the items, item-wise in response to the tender shall come into this part in the prescribed format only. ***Bid will be rejected if rates are not quoted in the prescribed format.***

- i. Tenderer shall indicate very clearly item-wise prices with reference to their technical offer.
18. The bidders should quote their offer / rates in clear terms without ambiguity.
 19. The rates should be quoted both in figures and words and legibly written without any over-writings. In case of any correction, the same must be attested by the bidder with full signature. However, no over-writing is permissible. Manufacturer's price-list, where applicable, should be submitted along with the bid.
 20. In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
 21. Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
 22. The bidder has to sign in full at all pages of the bidding document.

23. Bid Prices

- (i) The Bidder / Tenderer shall indicate **unit prices in the prescribed format only.**
- (ii) Prices indicated on the price-schedule form shall be entered separately in the following manner:
 - (a) **For Goods being offered from India/ abroad in INR**
 - i. The price of the goods quoted should be FOR NIT RAIPUR inclusive of all taxes(GST, Custom etc), charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the price schedule form, installation, commissioning, training charges etc , if any. (**Annexure V**)
 - (b) **For Goods being offered from abroad in currency other than INR**

- (c) The price of the goods, quoted on FCA (named place delivery abroad) or FOB (named port of shipment), as specified in the price schedule form. The price should be FOR NIT RAIPUR inclusive of all taxes, charges for insurance and transportation of the goods, agency commission, installation, commissioning, training charges etc if any. **(Annexure VI]**
- (d) The terms FOB, FCA, CIF, CIP etc. shall be governed by the rules prescribed in the current edition of the Incoterms published by the International Chambers of Commerce, Paris.
- (e) Prices quoted by the Bidder/Tenderer shall be fixed during the Bidder/Tenderer's performance of the Contract and not subject to variation on any account.

24. Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.

25. Responsiveness of Bids

- (i) Prior to the detailed evaluation, the Institute will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
 - (a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - (b) limits in any substantial way, inconsistent with the Bidding Documents, the Institute's rights or the Bidder/Tenderer's obligations under the Contract; or
 - (c) if rectified, would unfairly affect the competitive position of other bidders/tenderers presenting substantially responsive bids.
- (ii) The Institutes' determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- (i) If a bid is not substantially responsive, it will be rejected by the Institute and will not subsequently be made responsive by the Bidder/Tenderer by correction of the material deviation, reservation or omission.

26. Evaluation and comparison of bids

- (i) The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.
- (ii) To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined below. No other criteria or methodology shall be permitted.
- (iii) The bids shall be evaluated on the following basis which shall be arrived as under:

For goods being offered from India.

Goods price will be calculated FOR NIT Raipur. Lowest bid (L1) will be deciding by the price of the goods quoted should be FOR NIT RAIPUR inclusive of all taxes(GST & Custom

Duty, etc), charges for inland transportation, installation, commissioning, training charges, insurance and other local services required if any for delivering the goods at the desired destination as specified in the price schedule Price Bid format

For goods being offered from Abroad

- (i) In case of goods being offered from abroad, Lowest bid (L1) will be decided based on total cost at NIT Raipur, that include basic price of goods, freight and Insurance up to Indian Airport/port (CIF/CIP value up to Indianairport/port), custom duty and other taxes as applicable etc.,Inland transportation and insurance up to NIT Raipur, packaging, forwarding, agent commission for custom clearance and installation, commissioning and training charges if any.
- (ii) Conversion to Single Currency:** To facilitate evaluation and comparison, Bids quoted in foreign currency will be converted into Indian Rupees at the selling exchange rate established by Reserve Bank of India on its website, on the date of price bid opening.
- (iii)** In case charges for packing, forwarding, transportation inside India, custom clearance charges or other incidental charges are quoted extra in addition to the quoted rates, the amount thereof must be specified. Packing, forwarding, freight etc., when quotes separately are reimbursable at actual after production of original receipts/invoices. If external agencies are employed, their receipts must be enclosed with the invoice.
- (iv) *If vender wishes, he/they may alternatively, quote price of imported items in Indian rupees. In this case item may be treated as offered from India. Payment will be released accordingly.*

Note: *Where there is no mention of packing, forwarding, freight, transportation, insurance charges, taxes etc. such offers shall be REJECTED as incomplete.*

27. Clearance and delivery

On arrival of shipment/consignment, the supplier is required to arrange custom clearance and transportation of the consignment up to NIT RAIPUR premises. The Tenderer / bidder will do all types of clearance work and **formalities to deliver /provide the equipment at the site of installation.The expenses incurred will be reimbursed on actual basis not exceeding the quoted amount.**Institute will provide all types of documentary support including Customs Duty exemption certificate. The custom duty, demurrage (in case of delay in release of custom duty to the custom department by NIT Raipur) and government taxes/levies (if any) will be paid extra by the buyer after as per term of payment. **Principals will themselves have to procure any requisite permission from the Govt. of country of origin of equipment.**

28. Agency Commission/other charges

Agency commission, if any, should be clearly mentioned by the Bidder/tenderer and will be paid in Indian Currency. Please note that actual reimbursement will not exceed the quoted amount in any circumstances.

29. The Institute reserves right to conduct pre-dispatch inspection of goods and the vender must facilitate it at NIT Raipur's cost for pre-dispatch inspection.
30. **Warranty Period:** The warranty period should be **minimum 1 year with spares part or as mentioned in technical specifications (whichever is higher) from the date of installation with satisfactory performance as per specifications.** For standard items which carry warranty of more than one-year, standard warranty shall be applicable.
31. **Terms of Payment:** The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

Payment for Goods and Services offered from India:

Payment for Goods and Services supplied from within India shall normally be made in Indian Rupees, as follows: 100% payment will be made in account payee cheque or Draft/online Transfer using RTGS to the Supplier normally within thirty (30) days after the successful installation and commissioning of equipment's subject to submission of performance security, if any.

Payment for Goods and services offered from abroad:

Payment of foreign currency portion shall normally be made in the currency of contract in the following manner:

- a) **On Shipment:** Ninety (90) percent of the Contract Price of the Goods shipped shall be paid through irrevocable letter of credit (L/C) opened in favor of the Supplier in a bank in its country, upon submission of following documents specified as below: Within 24 hours of dispatch, the supplier shall notify the purchaser the complete details of dispatch and also supply following documents by Registered Post/ courier and copies thereof by FAX.
- i. Two copies of supplier's Invoice giving full details of the goods including quantity, value, etc.;
 - ii. Packing list;
 - iii. Certificate of country of origin;
 - iv. Manufacturer's guarantee and Inspection certificate/test report;
 - v. Inspection certificate issued by the Purchaser's Inspector, if any.
 - vi. Insurance Certificate, if required under the contract;
 - vii. Name of the Vessel/Carrier;
 - viii. Bill of Lading/Airway Bill;
 - ix. Port of Loading;
Date of Shipment;
 - x. Port of Discharge & expected date of arrival of goods and
 - xi. H S code of classification of goods.
 - xii. Any other document(s) as and when required in terms of the contract.

Note:

1. The nomenclature used for the item description in the invoices(s), packing list(s) and the delivery note(s) etc. should be identical to that used in the contract. The dispatch particulars including the name of the transporter should also be mentioned in the Invoice(s)
 2. The above documents should be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.
- b) **On Acceptance:** Ten (10) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods and successful installation & commissioning upon submission of claim supported by the acceptance certificate issued by the Purchaser along with the Performance security, if any.
- The L/C will be confirmed at the suppliers cost, if requested specifically by the supplier. If L/C is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers' account. All bank charges in India to the account of the opener and all bank charges outside India to the account of the beneficiary. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. The L/C for 100% value of the contract shall be established after deducting the agency commission payable, if any to the Indian agent from the CIF/CIP value.
32. **Performance Security (PS):** The successful bidder has to furnish “**Performance Security of 10% of the ordered value in Indian Rupee**”, in the form of Account Payee Demand Draft, / Fixes deposit and/or unconditional Bank guarantee en-cashable on demand from the Director, NIT, Raipur, from a nationalized Bank with validity period of sixty (60) days beyond the date of completion of all contractual obligations of supplier including guarantee/ warranty obligations. The Performance Security is to be furnished in favor of the Director, National Institute of Technology, Raipur, within ten days of intimation, failing which his bid security will be forfeited.
- The performance security will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations, including any warranty obligations.
33. **Delivery period:** Delivery should be made within **150 days** from the date of order of placement of goods offered from India or opening of the LC in case of goods offered from abroad.
34. **Releasing request for EMD/Bid Security and Performance Bank Guarantee(PBG):-**
- (i) Request for releasing of EMD should be addressed to Store and Purchase Section at NIT Raipur and will be released after checking the required compliances for releasing.
 - (ii) Request for releasing of Performance Bank Guarantee after expiry of the validity of the PBG should be addressed to the Head of concern department with copy of Purchase order and other relevant details.

35. **The Insurance** shall be for an amount equal to 110% of the CIF or CIP value of the contract from within "warehouse to warehouse/installation site (NIT Raipur)" on "all risk basis" including strikes, riots and civil commotion.
36. **Delayed delivery:** Maximum one month extension in delivery period may be given on the receipt of written request of the successful vendor; however liquidated damage at the rate of 5% per month or part thereof will be recovered from the firm of the value of undelivered goods. Request for extension in delivery period should be made before the last date of supply as mentioned in Purchase Order.
- Non delivery beyond extended period:** If the Tenderer fails to execute the order within the delivery period as mentioned above the order will be cancelled and EMD will be forfeited by the institute.
37. **Installation time:** The Company must install the equipment within a period of two months from the date of delivery of the equipment at NIT Raipur failing which order will be cancelled and EMD will be forfeited. However, necessary requirement for installation of goods/equipment will be provided by institute.
38. **Copy Right:** The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.
39. **Insurance:**
- Should the purchaser elect to buy on CIF/CIP basis, the Goods supplied under the Contract shall be fully insured in Indian Rupees against any loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
 - Where delivery of the goods is required by the purchaser on CIF or CIP basis the supplier shall arrange and pay for Cargo Insurance, naming the purchaser as beneficiary, initiate & pursue claims till settlement, on the event of any loss or damage.
 - With a view to ensure that claims on insurance companies, if any, are lodged in time, the bidders and /or the Indian agent, if any, shall be responsible for follow up with their principals for ascertaining the dispatch details and informing the same to the Purchaser and he shall also liaise with the Purchaser to ascertain the arrival of the consignment after customs clearance so that immediately thereafter in his presence the consignment could be opened and the insurance claim be lodged, if required, without any loss of time. Any delay on the part of the bidder/Indian Agent would be viewed seriously and he shall be directly responsible for any loss sustained by the purchaser on the event of the delay.
40. **Right to use Defective Goods:** If after delivery, acceptance, installation and within the guarantee and warranty period, the operation or use of the goods proves to be

unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

41. **Site preparation and installation:** The Purchaser is solely responsible for the construction of the equipment sites in compliance with the technical and environmental specifications defined by the Supplier. The Purchase will designate the installation sites before the scheduled installation date to allow the Supplier to perform a site inspection to verify the appropriateness of the sites before the installation of the Equipment, if required. The supplier shall inform the purchaser about the site preparation, if any, needed for installation, of the goods at the purchaser's site immediately after notification of Award / Purchase Order / Agreement.

35. **Force Majeure:**

- (i) Notwithstanding the Clauses relating to extension of time, penalty and Termination for Default the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- (ii) For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- (i) If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof within 21 days of its occurrence. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- (iv) If the performance in whole or in part or any obligations under the contract is prevented or delayed by any reason of force majeure for a period exceeding 60 days, either party may at its option terminate the contract without any financial repercussions on either side.

36. **Defective Equipment:**

- (i) If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, unmerchantable or not in accordance with the description /specification or otherwise faulty, the institute will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made to him.
- (ii) All damaged or unapproved goods shall be returned at suppliers' cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or

during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges.

37. Any disputes arising out of this enquiry shall be dealt in the Raipur jurisdiction.

38. Bidder has to sign all the pages of this tender and enclose it with the bid.

Registrar
NIT-Raipur

List of Annexure

1. Acceptance of tender terms & conditions-Annexure-1
2. List of Equipments – Annexure 2
3. Technical Specification of equipments/goods – Annexure 3
4. Technical Compliance of the bidder with reference to the 'Specification of Equipments :Annexure 4
5. Price Schedule for goods being offered from India – Annexure 5
6. Price Schedule for goods being offered from Abroad. – Annexure 6
7. Deviation statement form - Annexure 7
8. Bidder information & check list – Annexure 8

Annexure1

Acceptance of terms & conditions of tender(Must be on Letter Head)

Date:

To,

The Registrar,

National Institute of Technology,

Raipur-492010(Chhattisgarh)

Subject: Acceptance of Terms & conditions of Tender.

Tender ref. No.: NITRR/S&P/ET/OT/2019/1469 Dated 18/09/2019

Dear Sir,

1. I/We have downloaded/obtained the tender document(s) for the above mentioned Tender enquiry no. from the website www.tenderwizard.com/NITR or www.nitr.ac.in.
2. I/We hereby certify that I/we have read entire terms & conditions of the tender documents from Page 01 to 29 (including all documents like annexure, schedules etc.) which form part of the tender document and I/we shall abide by the terms & conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by NIT Raipur to have also been taken into consideration, while submitting this acceptance letter.
4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/corrigendum(s) in totality/entirely.
5. In case any provisions of this tender are found violated, NIT Raipur shall be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely and we shall not have any claim/right against NIT Raipur in satisfaction of this condition.
6. I/We confirm that we or our proprietor/Director/Partner have not been blacklisted or debarred or declared ineligible for corrupt/fraudulent practices either indefinitely or for a particular period of time by any Government or other agency. I/we further declare that no criminal case is registered or pending against the firm/company or its owner/partners/directors anywhere in India. Also there are no contractual restrictions or legal disqualifications or other obligations which prohibit the applicant from entering into tender process.

(Seal & Signature of the bidder)

Annexure 2**List of Equipment to be Procured Under Tender**

S.no	Name of Equipments	Qty.
1.	Advanced DSP Training Tool Kit	01
2.	Microwave Trainer Kit	01
3.	Microwave Test Bench	03

Annexure 3

Technical Specification

1. Advanced DSP Training Tool Kit

S. No	Specification	Quantity
1	ARM Cortex M4 controller (STM32F405RG or higher) board with at least 1024KB flash ROM and 192KB RAM, 3-axis accelerometer, 3x 12-bit analog to digital converters, 2x 12-bit digital to analog (DAC) converters, board pins connected with headers and Micro USB cable, ESP WROOM32 WiFi and Bluetooth development board. The boards must be capable of executing Python script copied to the file-system of the board. Wooden/acrylic enclosure or box for safekeeping and storage.	20 set
2	ARM Cortex M3 microcontroller (or AT91SAM3X8E or higher) board with at least 96 KB SRAM and 512 KB flash memory, CPU clock at 84Mhz or more, SRAM in two banks of 64KB and 32KB, 12 analog inputs and 2 analog outputs. Cable for programming Should be programmable with Arduino IDE or Atmel Studio or any open source IDE.	10 set
3	Programmable half duplex transceiver: Operating frequency at least from 1 MHz to 6 GHz, sampling rate up to 20 million samples per second, I/Q channel resolution: 8 bits, compatible with GNU Radio. Programmable full duplex FPGA based transceiver, 350 MHz to 3.5 GHz, sampling depth of 12 bits for both I & Q channels, 30 MSPS sampling rate. Accessories: Attenuators (10, 20, 50 dB), LNA (137 MHz, 1090 MHz, 1420 MHz), wideband splitter/combiner.	1 set

2. Microwave Test Bench

Microwave integrated circuit measurement system with RF generator and detector:

This System should consist of 4 Boards. The detailed specifications are given below.

This System should be integrated with the RF Generator and Detector for Measurements

RF Generator & Detector with external Directional Coupler	
Source :	Frequency 100 MHz to 3 GHz,
Frequency resolution :	1MHz,
Frequency Generation Modes :	Single tone , frequency sweep, frequency hopping, Frequency sweep for ≤ 3.8 sec, full span , Power Sweep 0 to 20 dB,
Frequency offset :	± 100 Hz,
Power max :	:0dbm upto 1.5GHz, -10dbm upto 3GHz
Power variation :	± 0.5 dB,
Power resolution :	0.5 dB,
Power sweep mode :	3 sec,
AM Modulation Range :	100MHZ to 2.8GHz,
FM Modulation Range :	300 MHz to 1 GHz,
PSK Modulation Range :	100 MHz to 1 GHz,
Operating mode :	Single, CW, hopping ,
Detector :	Dynamic range -50 dBm to 10 dBm ,

RF Detector sensitivity :	-60dB,
Interface :	USB-B plug,
Impedance :	50 ohm,
Display LCD :	128 x 64 graphic display,
Key Pad :	Membrane Type,
Software :	User friendly GUI to display the stored results and plot the same. Inbuilt Cable calibration facility to be provided and measurements facility and plotting the VSWR, Return Loss, S_{21} of DUT

External Directional coupler to be provided with following specification

Wideband 20 MHz to 3GHz,	
Insertion loss = 1dB,	
Coupling = 20dB	

Board 1: Active Component Source Board

MMIC Amplifier	
Frequency:	100 MHz to 3GHz , Gain:15 dB @ 2GHz (Typical)
VCO Frequency:	1200 MHz – 3000MHz,
Power Output:	8 dBm (typical)
Frequency Mixer:	RF / LO Frequency: 1200 MHz to 3000 MHz, LO Power : +7 dBm
Phase Shifter:	Frequency Range : 500MHz - 3000 MHz Tuning Voltage : 0V to 5V

Board 2: Passive Component Board:

Micro strip Filters	
LPF Frequency Range :	100 MHz to 2 GHz (3dB cut-off +/- 50 MHz)
HPF Frequency Range :	1.9 GHz (3dB cut-off +/- 50 MHz)
BPF Center Frequency :	2 GHz (+/- 50 MHz), Bandwidth : ~ 300 MHz @ 3 dB
BSF Center Frequency :	1.8 GHz (+/- 50 MHz), Bandwidth : ~ 850 MHz @ 3 dB
Attenuators	Tee Attenuator: 10 dB & Pi Attenuator 5 dB
Couplers :	Coupled Line Directional Coupler
Center Frequency:	2 GHz (+/- 50 MHz)
Coupling :	13 dB
Branch line Coupler Center Frequency :	2.45 GHz (+/- 50 MHz)
Rat Race Coupler Center Frequency :	2.45 GHz (+/- 50 MHz)
Ring Resonator Center Frequency :	2.45 GHz (+/- 50 MHz)
Power Divider	
Frequency :	500 MHz to 3 GHz

Transmission Line Terminations / Loads:	OPEN Termination, SHORT Termination, MATCHED Load, MISMATCHED Load
Board 3: Active Component Detector Board.	
Pin Diode Switch	
SPST Switch Frequency :	300MHz to 1 GHz
SPDT Switch Frequency :	1GHz to 2 GHz
Pin Diode Variable Attenuator:	
Frequency	:1.5 GHz to 2.5 GHz,
Attenuation range:	7 dB to 17 dB
Schottky Diode Detector	
Frequency :	2.2 GHz – 2.5 GHz
PIN Modulator :	1GHz to 3 GHz
Board 4: RF Circuit& Matching Architecture	
RF Lump Element	
Type	capacitive, Inductive
Frequency -:	0.3GHz to 1GHz,
Load condition-	Matched
High frequency effect on Lump Element	
Frequency -:	0.001GHz to 3 GHz,
Impedance -:	complex ,
Power -	0dBm to -20dB
Inductive Resonance Circuit	
Frequency -:	0.4GHz to 1GHz,
Power	0dBm to -20dB,
Load condition-	Matched, Resistive
Capacitive Resonance Circuit	
Frequency	0.4GHz to 1GHz,
Power	0dBm to -20dB,
Load condition-	Matched, Resistive
RLC Resonance Circuit	
Frequency	0.4GHz to 1GHz,
Power	0dBm to -20dB,
Load condition-	Matched, Resistive
Tunable Resonance Circuit	
Frequency	0.4GHz to 1GHz,
Power	0dBm to -20dB,
Load condition-	variable load
BALUN	
Frequency	0.3GHz to 3GHz,
Power	0dBm to -20dB,
Load condition-	variable load

DC Bias TEE	
Frequency	0.3GHz to 1GHz,
Power	0dBm
Isolation -25dB	
Microstrip Bias TEE	
Frequency	0.7GHz to 1.3GHz,
Power	0dBm to -20dB,
Load condition-	Matched load
Single stub matching	
Frequency	0.9GHz to 1GHz,
Load condition-	variable load
Quarter wave transformer	
Frequency	0.9GHz to 1GHz,
Load condition-	variable load
Binomial Quarter transformer	
Frequency	0.9GHz to 1GHz,
Load condition-	variable load
L Matching for resistive load	
Frequency	0.9GHz to 1GHz,
Load condition-	Resistive load
L Matching for complex load	
Frequency	0.9GHz to 1GHz,
Load condition-	Complex load
T Matching	
Frequency	0.9GHz to 1GHz,
Load condition-	High load impedance (fixed)
PI Matching	
Frequency	0.9GHz to 1GHz,
Load condition-	low load impedance (fixed)

Note:

- 1) Complete manual must be provided with list of experiments.
- 2) Standard Accessories must be supplied.
- 3) None of the Components/IC's number should be erased/hidden.

3. **Microwave Test Bench:**

X-BAND MICROWAVE TEST BENCH (Quantity – 03)	
Material	Inside -- Gold Plated Outside -- Nickel coated test bench with audio communications facility.
1	KLYSTRON POWER SUPPLY
2	KLYSTRON MOUNT WITH TUBE
3	ISOLATOR
4	FREQUENCY METER – DIRECT READING TYPE (Analog Rotating Type)
5	VARIABLE ATTENUATOR

6	SLOTTED SECTION
7	TUNABLE PROBE
8	DETECTOR MOUNT
9	SWR METER
10	WAVEGUIDE PHASE SHIFTER
11	PRECISION MOVABLE SHORT
12	BNC TO BNC CABLE
13	COOLING FAN
14	WAVEGUIDE STAND
15	WAVEGUIDE CAVITY
16	MAGIC TEE
17	H PLANE TEE
18	E PLANE TEE
19	WAVE GUIDE TWIST
20	MHD COUPLER 3,10 & 20 DB
21	CROSS DIRECTIONAL COUPLER
Very Important Note: Circuit Description Details of Klystron Power Supply and VSWR meter must be provided. None of the Components/IC's number should be erased/hidden.	

SPECIFICATION

(1) KLYSTRON POWER SUPPLY :-

(1). Input Voltage	220VAC $\pm 10\%$, 50 Hz
(2). Beam Supply	Voltage : 240- 400 V _{dc} , Variable Current : 50 mA Regulation : 0.5% for 10% I/p variation Ripple: <5mv RMS
(3). Repeller Supply	10-270 V _{dc} , Variable Regulation: 0.25% for 10% I/p variation
(4). Filament Supply	6.3 V _{dc}
(5). Over- load Trip Current	65 mA
(6). Modulation	AM (Square) FM (Saw - Tooth)
Frequency Range	500-2500 Hz 150-300 Hz
Amplitude	0-110 V 0-65 V
External	Through external Modulating Signal
(7). Display	Digital display for (1) Beam voltage, (2) Beam Current, (3) Repeller Voltage
(8). Standby Mode	Only Heater Supply ON
(9). Connectors	(1) 8-Pin Octal Socket for Klystron, (2) BNC (F) for external Modulation (3) 2-Pin Socket for Cooling Fan, (4) BNC (F) for Saw- tooth Monitoring
(10). Standard Accessories	i) Mains Cable (1 No.) ii) Coaxial Cable BNC – BNC (1 No.) iii) Spare Fuses (2 Nos.)

	iv) Instruction Manual (1 No.)
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(2) KLYSTRON MOUNT :-

Frequency Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39

(3) ISOLATOR :-

Frequency Range (GHz)	X-band
Min. Isolation (dB)	20
Min. Insertion Loss (dB)	0.4
Max. VSWR	1.2

(4) FREQUENCY METER – DIRECT READING TYPE (Analog) :-

Frequency Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39

(5) VARIABLE ATTENUATOR :-

Frequency Range (GHz)	X-band
Max. VSWR	1.10
Av. Power (watts)	2.0
Max. Insertion Loss (dB)	0.2
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Calibration Chart	Attenuation Level more than 30 dB

(6) SLOTTED SECTION :-

Frequency Range (GHz)	X-band
Max Residual VSWR	1.01
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Length of Slotted Channel (cms)	15
Least Count	0.01 mm Compulsory

(7) TUNABLE PROBE :-

Frequency Range (GHz)	X-band
Output Connector	BNC(F)
Detector	IN23

(8) DETECTOR MOUNT :-

Frequency Range (GHz)	X-band
Output Connector	BNC(F)
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Detector	IN23

(9) SWR METER

Amplifier type	High gain tuned at one frequency.
Frequency	1000 Hz $\pm$ 2%.
Sensitivity	0.1 microvolt at 200 ohms for full scale.

Band-width	25-30 Hz.
Noise-level	Less than 0.02 microvolt.
Range	70 dB min. in 10 dB steps.
Accuracy	± 0.15 dB on one range. Or Better
Meter	Linearity 1% of full scale.
Meter-Linearity	1% of full scale.
Scale-Selector	Normal, Expand
Gain-Control	'Coarse' & 'Fine'.
Input	BNC (F), 200 ohms impedance
Mains Power	220 V $\pm$ 10%, 50 Hz
Standard Accessories	i) Instruction Manual (1 No.) ii) Mains Cord (1 No.) iii) Coax. Cable BNC to BNC (1 No.) iv) Spare Fuse (2 Nos.)

10) WAVEGUIDE PHASE SHIFTER :-

Frequency Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Micrometer Size (mm)	25
Chart	Compulsory Phase Shifter upto 180 degree

11) PRECISION MOVABLE SHORT :-

Frequency Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	90
Micrometer Size (mm)	40

12. BNC to BNC Cable

- 13. Cooling Fan -1 nos. with each bench
- **14. Waveguide Stand**- 4 nos. with each bench
- 15. Waveguide Cavity
- 16. MAGIC TEE
- 17. H PLANE TEE
- 18. E PLANE TEE
- 19. WAVE GUIDE TWIST
- 20. MHD COUPLER 3,10 & 20 DB.
- 21. CROSS DIRECTIONAL COUPLER

22. Extra Accessories:**SOLID DIELECTRIC CELL (Only 1):-**

Freq Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Micrometer size (mm)	25
Solid Dielectric Samples	Teflon, nylon, ebonite, perspex& wax in 10,

	20, 30 mm length
<u>LIQUID DIELECTRIC CELL (Only 1):-</u>	
Freq Range (GHz)	X-band
Waveguide Type (WR-)	90
Flange Type (UG-/U)	39
Micrometer Size (mm)	60

Note:

- 1) Complete manual and Good Quality Head Phone with mic along with every Bench.
- 2) Standard Accessories with every Bench, Wall Chart, Live demonstration Contents, Cooling Fan, BNC Cables, Sufficient Screws with Dust cover, Mains card, BNC to BNC , Cable, Noose Plier and Measuring Tape.

Annexure 4**Technical Compliance of the bidder with reference to the 'Specification of Equipments'****Name and model no of offered goods/equipment:**

Item	Technical specification from NIT Raipur	Features available in equipments Yes or No	Any deviation from Specification, if any	Corresponding part number / datasheet / page no in broacher in support of specification	Comment of Technical Committee , NIT Raipur

Seal & Signature of Bidder

Annexure-5

Price Schedule form: Price Schedule for Goods Being Offered from India/Abroad in INR
(Separate form to be used for each item offered)

Name of the Bidder/Tenderer:

Name & Model No of offered good:

HSN Code:

Tender No.:

S. No.	Details	Price per Unit in INR
1	Ex-works, Ex-warehouse, Ex-show room off the shelf price (inclusive of all taxes already paid)	
2	GST* payable, if contract is awarded(%)	C.G.S.T.(%)
		S.G.S.T.(%)
		I.G.S.T.(%)
3	Packing & forwarding up to station of dispatch, if any	
4	Charges for inland transportation, insurance to ultimate destination i.e. NIT, Raipur, if any	
5	Installation, Commissioning and training Charges, If any	
6.	Any other charges (Please specify)	
Total Price (Sum of S. No 1 to 6) FOR NIT RAIPUR		

**NIT Raipur have DSIR registration certificate.*

Total Bid price in Indian currency_____

In words: _____

Name _____

Business Address

Note:

- (a) The cost of optional items shall be indicated separately.
- (b) Price should be quoted in prescribed format only as above.

Seal &Signature of Bidder

Annexure-6

Price Schedule Form: Price schedule for goods being offered from abroad in currency other than INR

(Separate form to be used for each item offered)

Name of the Bidder/Tenderer:

Name & Model No of offered good:

HSN Code:

Tender No.:

S. No.		Price per unit in ()
1	Country of origin	
2	FOB (named port of shipment) Or FCA (named place of delivery)	
3	Freight and Insurance up to Indian Airport/port	
4	Total Price at Indian Airport /port (2+3)	
5	**Custom charges (please mentioned %)	
6	Custom clearance and other charges if any (with breakup)	
7	Inland Charges for Insurance & transportation to NIT Raipur	
8	Installation, commissioning and training Charges, if any	
9	If any other charges (Please Specify)	
	Total Price (FOR NIT Raipur) (Sum of S. No 1 to 9)	

**** NIT Raipur have DSIR Registration Certificate.**

Total Bid price in foreign currency: -----words: _____

(a) Indian agents name & address _____

(b) The cost of optional items shall be indicated separately-----

Seal &Signature of Bidder

Annexure-7**DEVIATION STATEMENT FORM**

The following are the particulars of deviations from the requirements of the tender specifications:

CLAUSE	DEVIATION	REMARKS (INCLUDING JUSTIFICATION)

Seal & Signature of Bidder

Annexure-8(Please put this annexure at the top of the tender document)**Bidder's information & Check list****1. Name of the Firm:****2. Type of the firm:** (Proprietorship, Pvt Ltd, Public Ltd, Partnership etc.)**3. Address of the firm:****4. Contact detail: Phone No.:****Mob No. :****Fax No.****E mail:****5. Name of the authorised signatory:****6. EMD detail : Intrument No.****Date :****Amount:****Issuing Bank name & branch detail:****7. Bank details of the firm:****Account No.:****IFSC Code:****Name of the Bank:****Branch:****Check List(Please enclose the copy of the following & tick as per applicability)****1. Proof of registration of the firm:****2. Authorisation certificate of dealership:****3. PAN card in Firm's name:****4. GST Registration Certificate:****5. Proof of registration with any central govt . organisation.****6. Purchase orders issued by any central govt organisation.****7. Bank details of the firm in letter head of the organisation.**

Seal &Signature of Bidder