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**राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर**  
हमीरपुर (हि.प्र.) – 177 005 (भारत)  
**NATIONAL INSTITUTE OF TECHNOLOGY HAMIRPUR**  
HAMIRPUR (H.P.) - 177 005 (INDIA)  
(An Institute of National Importance under Ministry of HRD)

**E-TENDER NOTICE**

Sealed online e-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned below.

Sr. No.	Name of works/item	Qty/ No.	Earnest Money In Rs.	Time Limit
1	PCM Modulation and Demodulation Kit	5Nos.	12800/-	30 days
2	ASK/FSK/BPSK /DBPSK TRAINER KIT	5 Nos.		
3	Error Correction and Hamming Code Development System	5 Nos.		
4	Time Division Multiplexing & De-multiplexing Kit	5 Nos.		
5	Delta Modulation and Demodulation Kit	5 Nos.		

1. Availability of bid document and mode of submission:-The bid document is available online and bid should be submitted in online mode on website <http://www.eprocure.gov.in/> and <http://www.nith.ac.in/>. Bidder would be required to register in the web-site which is free of cost. For submission of bids, the bidder is required to have Digital Signature Certificate (DSC) from one of the authorized certifying authorities (CA).

2. Key dates: (1)

1	Date of online publication	12.02.2020 at 6.00 PM
2	Document download start and end date	12.02.2020 to 04.03.2020 10.30 AM
3	Bid submission start and end date	12.02.2020 to 04.03.2020 10.30 AM
4	Physical submission of EMD, technical documents and cost of tender document etc.	On or before 05.30 PM on 04.03.2020
5	Date of opening of technical bid	5.03.2020 at 11.30 AM

- (II) Objections/representation if any against the bidders will be entertained only within three days after publication/uploading of technical bid opening summary on net and thereafter that the date of opening of financial bid of technically qualified bidders will be published /uploaded on net.



3. Tender Details:-The tender Documents shall be uploaded in 2 cover:-

Cover 1:-Shall contain scanned copies of all "Technical Documents/Eligibility information".

Cover 2:- Shall contain "BOQ/Financial Bid", where supplier will quote his offer for each item.

- (a) Submission of Original Documents: The bidders are required to submit (a) original demand draft towards the cost of bid document and (b) original bid security/Earnest Money deposit (EMD) and other technical documents in the Store & Purchase Section, NIT Hamirpur-177005 (HP) as specified in the key dates of Sr. no.2 on tender opening dates & schedule, failing which the bids will be declared non-responsive. EMD in the form of DD/FDR must be attached with in favour of Director, NIT, Hamirpur (H.P) -177 005. The EMD should be remained valid for a period of 90 days beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after successful execution of supply order. The above condition is applicable to all & no relaxation will be given.

4. BID OPENING DETAIL: - The bids shall be opened as per schedule specified in the key dates of Sr. no.2, in the Store & Purchase Section, NIT, Hamirpur by the authorized officer. In their interest the tenderer are advised to be present along with original documents at the time of opening of tenders. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time & venue.
5. The bids shall remain valid for acceptance for a period of not less than 90 days after the deadline date for bid submission. Other details can be seen in the bidding documents. The officer inviting tender shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt notify the bidder of any bid updates. The Employer shall not be liable for any information not received by the bidder. It is the bidders responsibility to verify the website for the latest information related to the tender.
6. The copy of enlistment order & renewals, Copy of PAN issued by Income tax Department and copy of GST Certificate must accompany in the cover-1
7. The bidder must have successfully completed at least one work of similar nature in Govt deptt. The bidders shall have to produce supporting documents giving date of award, date of commencement and completion from the concerned competent authority and should be included in cover-1
8. Destination: F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must include the charges for Packing, Forwarding, Freight, etc., if any.
9. Price/Rate: The price of items may be quoted in Indian rupees.
10. GST:- All the firms may invariably mention their GST/PAN numbers on tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
11. The bidders/firms have to supply the complete catalogue/brochure of the products to be supplied along with the Technical bid.
12. The technical bids will be evaluated on the basis of terms & conditions of the tender and details of the product to be supplied as per condition 11 of the tender notice. The committee reserves the right to reject any technical bid on the basis of technical specifications/catalogue/brochure submitted.
13. Conditional/ telegraphic tenders shall summarily be rejected.



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14. For any clarifications bidders are requested to contact FI (Purchase), NIT Hamirpur at his E-mail ID i.e. fip@nith.ac.in.
15. The tender/bid shall be kept in a sealed envelope superscribed as "Tender for (Name of work and date of opening \_\_\_\_\_)".
16. The jurisdiction of the law of court shall be at Hamirpur (HP).

AR (P&W), 12/02/2020  
NIT Hamirpur.  
Dated: - 12-02-2020

No: NIT/HMR/E&CED/ 2020/6023-24

Copy forwarded to the following for information please:-

1. The HOD, E&CED, NIT Hamirpur for information please.
- ✓ 2. The FI(CC), for getting the advertisement displayed in the Institute website for wider publicity under head: - **Supply and installation of various Lab Equipments (Part-3) for E&CED of NIT, Hamirpur.**

AR (P&W), 12/02/2020  
NIT Hamirpur.





राष्ट्रीय प्रौद्योगिकी संस्थान हमीरपुर [हि. प्र.]

National Institute of Technology Hamirpur [H.P.]

[ Under Govt. of India, Ministry of HRD, New Delhi ]

NIT-SBD

**Subject: - Supply and installation of various Lab Equipments (Part-3) for E&CED of NIT, Hamirpur.**

Sealed online E-Tender in two bid system are hereby invited by the undersigned for the supply of following items on behalf of the Director, NIT, Hamirpur from the Eligible/ Experienced/ Resourceful, manufacturer's dealer/authorized distributor etc. having experience in appropriate field and who have successfully completed works of similar type, so as to reach in the office of the undersigned as per date & time mentioned in the tender notice.

Sr. No.	Name of works/item	Qty/ No.	Earnest Money In Rs.	Time Limit
1	<b>PCM Modulation and Demodulation Kit</b>  <b>Detailed Specifications</b> <b>PCM Modulation and Demodulation Kit</b> Audio codec: Stereo Inputs: single ended Number of bits per channel : 16 bits (left and right) Sampling rate :Variable sampling rate @ 64,32,16 and 8KHz Onboard Clock source Signal source: Sine and triangular. Frequency : up to 3 KHz or better Amplitude: 0-3.3Vpp. Output waveforms: 250Hz, 500Hz, 750Hz, and 1Khz with adjustable amplitude. LCD Display16X2 or better On board : ADC and DAC , reset switch, In-Built Power Supply of with Power ON indication, Crystal frequency out.	5Nos.	12800/-	30 days
2	<b>ASK/FSK/BPSK /DBPSK TRAINER KIT</b>  <b>Detailed Specifications</b>  <b>ASK/FSK/BPSK /DBPSK TRAINER KIT</b>  The System must have facility for digital data inputs and outputs, along with switches and indicators.Facility for various test points should be provided. Facility for on boards USB programming of FPGA. 16x2 LCD (or better) Display. With reprogramming facility	5 Nos.		



	<p>Clock and serial data test point.</p> <p>Test points to measure and test signals.</p> <p>On board programming facility for development.</p> <p>On board 3.3v and 5v power supply provision with test points.</p> <p>Facility for FSK –modulator /Demodulation, ASK–modulator /Demodulation, BPSK and DBPSK –modulator /Demodulation</p> <p>Facility for the BER Calculation.</p>			
3	<p><b>Error Correction and Hamming Code Development System</b></p> <p><b>Detailed Specifications</b></p> <p>Error Correction and Hamming Code Development System</p> <p>Lcd16x2 for display.</p> <p>8 MHz oscillator.</p> <p>3.3Vand 5V power supply test points.</p> <p>8 bit data input switches.</p> <p>Error generation switches with 8 bit led indicators.</p> <p>12 number of indicators for data frame transmission.</p> <p>Data status indicators 12 numbers for receiving data frame.</p> <p>Led Based visual description of various logic states.</p> <p>Error detection and error correction using Led indicators.</p> <p>Programmable using Xilinx’s FPGA, along with PROM.</p> <p>JTAG Header for facility of USB communication for programming.</p> <p>The kit must have facility of various ODD, EVEN PARITY, and CRC, Check Sum and Hamming code transmission and recovery Section.</p> <p>Facility for single bit error detection and correction.</p> <p>Error generation and detection 8-bit binary data.</p>	5 Nos.		
4	<p><b>Time Division Multiplexing &amp; De-multiplexing Kit</b></p> <p><b>Detailed Specifications</b></p> <p>Time Division Multiplexing &amp; De-multiplexing Kit</p> <p>No. of Channels 4 (Two analog, two digital)</p> <p>On board Crystal Frequency 25MHz.</p> <p>8 bit DAC and ADC.</p> <p>With reprogramming facility</p>	5 Nos.		



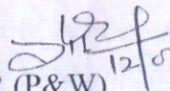
	Sampling frequency 8 KHz, 16 KHz, 32 KHz, 64 KHz Signal Generator:- Sine, triangle, square, random binary sequence. Individual frequency variations for signals 500 Hz, 1 KHz, 2 KHz, 3KHz On board power supply, reset switch, Audio input and output.			
5	<b>Delta Modulation and Demodulation Kit</b> <b>Detailed Specifications:-</b> Delta Modulation and Demodulation Kit Schemes: Delta Modulation, Adaptive Delta Modulation, Sigma Delta Modulation Crystal Frequency 25MHz or higher. 8 bit DAC and ADC With Reprogramming Facility Sampling frequency @8, 16, 32, 64 kHz Sine, Triangle, Square, Variable DC Signal through Potentiometer. Individual frequency selections for signals 500 Hz, 1 KHz 2 KHz 3KHz On board 16X2 or better LCD Display Test point for various outputs.	5 Nos.		

**TERMS AND CONDITIONS:-**

1. **Validity:** Minimum validity of the quotation will be 03 months from the date of opening of the quotation/tenders.
2. **Time Limit:** - The firm/supplier has to supply and install the equipments within 40 days from the date of the award letter.
3. **Guarantee/warranty:** - The supplier has to provide equipment guarantee/warranty supplied for next 01 year from the date of successful installation of the equipment supplied. (Certificate of the same to be given by the supplier)
4. **Demonstration & Training:-** The supplier will have to demonstrate and impart training to concerned users at NIT, Hamirpur after successful supply & installation. (Certificate of the same to be given by the concerned user/indenter).
5. **EMD: EMD in the form of DD/FDR /Bank Guarantee must be attached in favour of Registrar, NIT, Hamirpur (H.P) -177 005.** The EMD should be remained valid for a period of 90 day beyond the final bid validity period. EMD of unsuccessful bidders shall be returned after the expiry of the final bid validity or before the 30th day of the award of contract. The EMD of the successful bidder shall be released after successful execution of the supply order. The above condition is applicable to all & no relaxation will be given.
6. **Technical Evaluation:-** Technical evaluation of the participating firms will be done strictly on the basis of catalogues/brochures/literature/technical details of the product to be supplied along with relevant experience & fully complying all the terms & conditions of the SBD & tender notice.



7. **Destination:** F.O.R. destination i.e. NIT, Hamirpur (HP) and the rates must be quoted inclusive of all taxes and charges.
8. **Penalty:** In case the firm/vendor fails to supply the equipments within the stipulated period penalty without assigning any reasons @ 1/2% (half percent) of the total value of the item covered in order as penalty per day subject to a maximum of 5% (five percent) will be imposed unless extension is obtained in writing from the office on valid ground before expiry of delivery period
9. **Price/Rate:** The price of equipment/items may be quoted as per BOQ clearly mentioning the Basic rate & GST in the specific columns of BOQ in Indian rupees. Tender will be awarded to the participating bidder who will be lowest in terms of total of all items.
10. **GST:** - All the firms may invariably mention their GST/PAN numbers on quotation/tender failing which quotations may not be considered valid. Further, this Institution does not issue any C/D Concessional form, so the GST applicable as per actual rates must be mentioned in the offer. In case GST is not mentioned, the rates shall be treated as inclusive of all taxes.
11. **NIT/NIQ Opening:** Representative of the firm may be present at the time of opening of the Quotations, if it wishes.
12. **Payment:** 100% payment shall be made immediately after receipt of material in good condition and successful installation of the same. (Certificate of the same to be given by the indenter/inspection committee NIT, Hamirpur)
13. **Right of Acceptance/Rejection:** Right of acceptance and rejection of any tender/quotation in part or full without assigning any reason are reserved with the institution authorities. The number of items to be purchased could be increased or decreased depending on the requirement of end user.
14. In case of any dispute the jurisdiction of Hamirpur (HP) Courts shall apply.

  
AR (P&W) 12/02/2020  
NIT, Hamirpur (HP).