

NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR  
Silchar – 788 010 (ASSAM)

No: NITS-PS-498-ECE-Equip-17

Date: 21/11/2017

NOTICE INVITING TENDER

FOR SUPPLY AND INSTALLATION OF EQUIPMENT FOR ECE DEPARTMENT AT NIT SILCHAR



LAST DATE & TIME OF SUBMISSION : 22/12/2017 up-to 01.00 PM  
DATE & TIME OF OPENING : 22/12/2017 at 03.30 PM



**NATIONAL INSTITUTE OF TECHNOLOGY  
SILCHAR - 788 010**

Tel.No. Director: (03842) 224879

Fax: (03842) 224797

**NOTICE INVITING TENDER**

**Adv. No: NITS-PS-498-ECE-Equip-17**

Sealed Tender/Quotations are invited from reputed Firms/Agencies/Manufacturer/Authorized Dealer **FOR SUPPLY AND INSTALLATION OF EQUIPMENT FOR ECE DEPARTMENT AT NIT SILCHAR** along with Earnest Money Deposit (EMD) @2% of the total bid value in the form of Demand Draft/Bank Guarantee in favour of "The Director, NIT, Silchar", Payable at Silchar. No Interest shall be paid on EMD.

Detail specification of the item/items is given in **(Annexure – A)**.

Tender documents can be obtained from Purchase Section, NIT Silchar or may be downloaded from our website [www.nits.ac.in](http://www.nits.ac.in) or <http://tenders.gov.in>. **The cost of tender document is Rs.5,00/-** (Non-refundable) to be submitted in cash or in the form of DD in favour of The Director, NIT Silchar, Payable at Silchar. The last date and time for submission of Tender document will be 22/12/2017 up to **01.00PM** and tender will be opened on the same date at **03.30 PM** in office of HOD, ECE Dept., NIT SILCHAR.

The offers without Cost of Tender & Earnest Money Deposit (EMD) shall be out rightly rejected.

Director, NIT Silchar reserves the right to extend the date, or cancel the tender, accept or reject any/all quotations or not to purchase all or any of the items.

Quotations are to be sent/submitted in sealed covers addressed to:-

The Faculty-In-Charge, Purchase  
National Institute of Technology, Silchar  
788 010 (Assam)

**REGISTRAR, NIT SILCHAR**



## NOTICE INVITING TENDER

### Credential Criteria:

- The bidder should have provided similar nature of services to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during last 3(three) years. **Duly certified copies are to be enclosed.**
- Quotations are to be submitted in **TWO PARTS** i.e. (a) **Technical Bid** and (b) **Price Bid**, in two separate properly sealed covers; and both these covers will have to be again put in to a single sealed cover. Also, the address of the firm submitting the quotation must appear distinctly on both the inner sealed covers, indicating also **TECHNICAL BID / PRICE BID** as may be applicable. The outer most cover shall be super scribed as
  - "QUOTATION FOR SUPPLY & INSTALLATION OF .....FOR  
..... NIT SILCHAR.
  - VIDE TENDER REF NO NITS/PS-....., DATED.....DATE OF  
OPENING .....

[The bid will summarily be rejected & returned to the bidder if the sealed envelope containing the quotation is not super scribed as above].

- **Genuine Pricing** (Both foreign & indigenus) :Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold recently, particularly to IIT/Institutes and other Government Organization.
- **No Part Delivery:** Part shipment for any items will not be allowed.
- **Any Optional item quoted by the supplier will not be entertained.**
- **Termination for default :** Default is said to have occurred -
- If the supplier fails to deliver any or all of the items/services within the time period(s) specified in the purchase order or any extension thereof granted by NIT Silchar, the Institute may terminate the contract / purchase order in whole or in part and forfeit the EMD/PBG as applicable.

### TERMS & CONDITIONS:

1. The bidding agency should be reputed firm and having all necessary certificates, viz. GST registration certificate, PAN, Registration, Sale Tax clearance Certificate, Authorized Dealership/Distributorship certificate, etc. The photocopies of all the certificates should be attached with the tender.
2. The firm should be an original equipment manufacturer (OEM) in the business of manufacture or supply of equipment for minimum 5 (five) years. The firm should submit audited financial statements for latest three financial years in support of this claim.
3. The items being quoted should be of Original Manufacturer and no non-standard item should be quoted. All detailed specifications with make & model no. of the items accompanied by proper leaflets should be clearly mentioned and attached with the offer. In case of proprietary or patented item, necessary certificates in support of the same should be attached. The bidder must submit the Compliance Statement and Deviation Statement of technical specification.
4. The firm should have satisfactorily manufactured and supplied equipment, as requisitioned in this tender, to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during the last three years ending the last day of March 2017.
5. **The rate quoted must be both in words and figures and F.O.R. / Destination National Institute of Technology, Silchar inclusive of packing, forwarding etc. Octroi, surcharge, insurance, Installation and any other charges.** Educational discount, if any should be indicated clearly. Tenderer(s) may note that the Government of India exempts this Institute from paying custom duty/excise duty on selected items. Necessary documents will be furnished if required on demand by the Tenderer(s). **Rate quoted for any other destination shall not be accepted.**



6. Quoted rate should be inclusive of all taxes. Nothing extra will be paid by the Institution.
7. Payment: Payment shall be made only after receipt and installation of the materials/articles in good and working conditions as per specifications and after satisfactory installation and commissioning of the equipment/machinery/accessories by the department.
8. Manufacturer's/Company's name, it's trademark should be mentioned in the Tender and illustrative leaflets giving technical particulars, etc. should be attached in the tender.
9. Tenderer(s) registered with the State/Central Government must quote his registration numbers, if any, and submit a Xerox copy of registration along with the tender.
10. Guarantee/Warranty period offered for the tendered item is to be clearly specified.
11. The rates to be quoted by the agency should be valid for a period of 6(six) months after the deadline date specified in the tender.
12. The quantity against each item mentioned in the tender may vary according to the actual requirements at the time of placing Purchase Order.
13. It is not binding for the bidding agency to quote for all the items.
14. **Each bidder should clearly specify that the bidder agrees to abide by the conditions of this tender document on their printed letter head duly sealed & signed by an authorized person.**
15. **Bid Price**
  - a) The contract shall be for the full quantity as described above. Corrections, if, shall be made by crossing out, initialing dating and rewriting.
  - b) **The bidder should quote the total price for each item inclusive of packing and forwarding, all duties, levies, insurance, installation, any other charges, etc. Only taxes & (discount if any) should be mentioned separately.**
  - c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
16. Each bidder shall submit only one quotation.
17. All necessary documents shall be furnished along with the bid.
18. Validity of Tenders/Quotations: Tenders/Quotations shall remain valid for a period not less than 6 (six) months after the deadline date specified for submission of tender.
19. **Packing**
  - a) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall have to be taken into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
  - b) The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements.
20. **Evaluation of Quotations :**

NIT Silchar will evaluate and compare the quotations determined to be substantially responsive i.e. which

  - a) are properly signed
  - b) Conform to the terms and conditions, and specifications.
21. **Award of contract:**

NIT Silchar will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

- a) The bidder whose bid is accepted will be notified of the award of contract by the NIT Silchar prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
  - b) Normal commercial warranty/guarantee shall be applicable to the supplied goods.
  - c) The goods (both indigenous & imported) should be insured against theft, loss or breakage during transit till destination.
  - d) Upon delivery of goods, the supplier shall submit Suppliers Invoice, Insurance certificate, Warranty Certificate, or any other document.
22. **Acknowledgement of the Purchase Order:** The supplier shall give an acknowledgement of the Purchase Order within 15 days of the date of the Purchase Order. In case, the supplier fails to acknowledge the Purchase Order within the stipulated time, the Institute is at liberty to cancel the Purchase Order.
23. No alternations in tender forms shall be made by the bidder and if any such alteration is made, the tender is liable to be rejected.
- a) **Delivery Schedule and Penalty for Delay:** Delivery of equipment should be made within 30days /as per Purchase Order from the date of issue of Purchase Order. **Penalty at the rate of 0.5% or part thereof of the order value per week, subject to a maximum of 2.5% will be imposed for delayed delivery and installation.**
24. Demurrages and penalty, if any, paid by the supplier shall not be borne by the Institute.
  25. The tenders submitted shall clearly mention the name of the firm/person in whose favour the purchase order is to be placed.
  26. Contact details of the person for all post sales/installation maintenance support should clearly be given with **Name & Designation, Phone No, Fax No, Mobile, E-mail and official address.**
  27. National Institute of Technology Silchar is not liable for non-receipt of the tender forms in time due to wrong address/ any delivery delay of the mail service provider/ force majeure. Tender documents received after the last date and time for receiving tenders will be summarily rejected.
  28. **Successful bidder shall give a performance security @5% of the total order value in the form of Bank Guarantee.** The performance security shall be furnished after the order for supply is placed and before the final payment. Validity of the Performance Security shall cover the warranty period.
    - The proceeds of the Performance Security shall be payable to the purchaser as compensation for any loss resulting from the suppliers failure to complete its obligations under the contract.
  29. All legal disputes shall be under the jurisdiction of the Silchar Courts of Cachar District in the state of Assam.

  
Registrar, NIT Silchar

## DECLARATION

I / We hereby declare that no case is pending with the police/ court against the proprietor/ firm/ partner or the company (Agency). Also I /We have not been suspended / blacklisted by any PSU / Government Department / Financial Institution / Court.

(Signature & seal of the contractor)

Place:

Date:



## **NO DEVIATION CERTIFICATE**

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this tender and we do not have any deviation to this tender enquiry. We hereby undertake and confirm that we have understood the scope of work properly and shall be carried out as mentioned in this tender enquiry.

**(Signature & seal of the contractor)**

Place:

Date:

**BIDDERS DETAILS**

Name of the Contractor /Party/ Firm	:	<input type="text"/>
Name of Authorized Representative	:	<input type="text"/>
Phone Nos.	:	<input type="text"/>
Mobile Nos.	:	<input type="text"/>
Fax No.	:	<input type="text"/>
E-Mail Address	:	<input type="text"/>
Web Site Address ( If Any)	:	<input type="text"/>

(Signature & seal of the contractor)

Place:

Date:



## TECHNO-COMMERCIAL BID

NAME OF THE WORK: Supply and Installation of ..... at NIT Silchar TENDER NO. : NITS/PS-....., Dtd....., LOS : .....					
Sl. No.	Name of item with Specification, Make & Model	QTY.	Rate per Unit in	Taxes in %	Total Amount in
				Sub Total Amount	
				Discount (if any)	
				Taxes (if any)	
				Other Charges (if any)	
				<b>Grand Total Amount</b>	
<b>(AMOUNT IN WORDS)</b>					

I/ we have gone through all the Special & General Conditions and the contractor's obligations enclosed with this tender document and agree to abide by these.  
**Note:** In case of discrepancy in rates between figure & words the higher will be taken for evaluation of bid and lower value will be taken for award of work.

(Signature & seal of the contractor)

Place:  
Date:

## CHECK-LIST (TECHNICAL BID)

### SUMMARY OF COMPLIANCE TO REQUIREMENT OF TENDER

Sl. No.	Description of Requirement	Yes / No / NA	Page No.
1.	Tender Cost Rs.500/- (Non-refundable) in the form of Demand Draft in favour of "Director, NIT Silchar" in a separate envelope		
2.	EMD @2% of total bid value in the form of Demand Draft /Bank Guarantee in favour of "Director, NIT Silchar" in a separate envelope		
3.	Copy of Manufacturer/ Authorized Supplier Certificate		
4.	Audited financial statement for the last 3 years		
5.	Copy of the PAN card.		
6.	Copy of GST registration certificate		
7.	Copies of previous work order of similar work with completion certificate (if any)		
8.	Declaration certificate		
9.	No Deviation certificate		
10.	Bidder's details		
11.	Technical Specification		
12.	NSIC/SSI Certificate where applicable		
13.	All the pages of tender document have been signed		
14.	Price bid in separate sealed envelope.		
15.	Complete copy of Techno Commercial Bid submit along with the Price Bid.		

(Signature & seal of the contractor)

Place:

Date:

**TECHNICAL SPECIFICATION OF ITEMS WITH QUANTITY:-**

SL No	Description
1.	<p><b>Digital Storage Oscilloscope, Qty. Required : 20</b>            Bandwidth : 50 MHz            Memory Depth : 32k points            Real time Sample Rate : 500 MSa/s            Equivalent Sample rate : 50 GSa/s            No. of Channel: Dual Channel, Individual simultaneous Volts/div control for each channel            Vertical Sensitivity : 2mV/div to 10V/div 1-2-5 steps            Vertical Resolution : 8 bits            Accuracy : 2 mV/ div Variable gain ranges:+ 4 %            5 mV/ div to 10 V / div in fixed gain ranges : + 3%            Rise Time &lt;7 ns            Input Impedance : 1 M ohm    16 pF            Input Coupling : AC, DC &amp; GND            Time Base Range : 5 ns/div to 50 s/div            Time Base Accuracy : <math>\pm 100</math>ppm measured over 1ms interval            Trigger Sources : CH1, CH2, EXT, EXT/5, AC-Line            Trigger Mode : Auto, Normal, Single            Trigger Type : Edge, Pulse, width, Video, Slope, Alternative            Trigger Coupling : AC, DC, LF-Rej, HF-Rej            Auto Measure : Min 32 measurements including Vpp, Vmax, Vmin, Vamp, Vtop, Vbase, Vavg, Mean, Crms, Vrms, ROVshoot, FOVshoot, RPRESHoot, FPRESHoot, Rise time, Fall time, Freq, Period, + Wid, - Wid, + Dut, - Dut, BWid, Phase, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF            Math Function : Addition, Subtract, Multiply, Divide &amp; 1024 pt. FFT            Scale : 8 x 18 div            Probe attenuation factor set: X 1, x 5, x 10, x 50, x 100, x 500, x 1000            Direct print function : Should be available            Help function on front panel : Should be available            Storage: Internal 2 reference waveforms, 20 Setups files &amp; 10 traces files            X-Y Bandwidth : 50 MHz            Interface: RS-232, USB host, USB Device &amp; pass/fail out            PC application Software :Should be provided            Display: 7" TFT LCD            Waveform Interpolation : Sinx/x, Linear            Standard Accessories : Mains Cord, User Manual, Probes- 2No., USB Cable, Standard Software CD            Power supply : 100-240 V AC +/- 10%, 47-440 Hz            Weight : Approx 2.5kg</p>
2.	<p><b>25MHz ARBITRARY FUNCTION GENERATOR, Qty. Required : 10</b>            Maximum Output Frequency : 25 MHz            Sampling Rate : 125MSa/s            Arbitrary Waveform Length : 16kpts            Frequency Resolution : 1<math>\mu</math>Hz            Vertical Resolution : 14 bits            Waveform : Sine, Square, Ramp/Triangle, Pulse,Gaussian Noise, 46-built-in arbitrary waveform including DC            Modulation : AM, DSB-AM, FM, PM,FSK, ASK, PWM, Sweep, Burst            Accuracy: <math>\pm 50</math>ppm within 90 days <math>\pm 100</math>ppm within 1 year            Temperature coefficient &lt;5ppm/<math>^{\circ}</math>C  <b>Sine</b>            Frequency Range : 1<math>\mu</math>Hz to 25MHz.            Total Harmonic Distortion &lt;0.2% (DC-20KHz, 1Vpp)  <b>Square wave</b>            Frequency Range: 1<math>\mu</math>Hz to 25MHz.            Rise / Fall time &lt;12ns (10% - 90%)            Overshoot &lt;5% (typical,1kHz,1Vpp)  <b>Ramp/Triangle</b></p>



Frequency Range : 1 $\mu$ Hz to 300kHz.  
Linearity <0.1% of peak value output (typical, 1kHz, 1Vpp, 100% symmetric)  
Symmetry : 0-100%

**Pulse**

Frequency Range : 500 $\mu$ Hz to 5MHz  
Pulse width : 16ns-1998s  
Resolution : 1ns  
Rise/Fall time : 7ns (10%-90% typical), 1kHz, 1Vpp  
Duty Cycle : 0.1% Resolution

**Arbitrary**

Frequency Range : 1 $\mu$ Hz to 5MHz.  
Waveform length : 16 k points  
Vertical resolution : 14 bits  
Min. Rise/Fall time : 7 ns (typical)  
Storage (RAM) : 10 waveform

**Output Specification**

Amplitude (50 $\Omega$ ):  
2mVpp - 10Vpp ( $\leq$ 10MHz)  
2mVpp - 5Vpp ( $>$  10MHz)  
Amplitude Flatness :  $\pm$  0.3 dB

**Frequency Counter**

Measurement: Frequency, Period, Positive/Negative pulse width, Duty cycle  
Frequency range : Single Channel: 100mHz- 200MHz  
Frequency Resolution : 6bits/s

**General Specification**

Display: 3.5" TFT LCD Display.  
Power Supply : 100 - 240Vrms, 50/60 Hz, CAT II  
Operating Condition : 0 to 40 $^{\circ}$ C  
Electromagnetic Compatibility :  
EN 61326-1:2006  
EN 61000-3-2:2006 +A2: 2009  
EN 61000-3-3:2008  
Safety:  
2006/95/EC Low Voltage Directive  
EN 61010 -1:2010/ EN 61010-031:2002 + A1:2008  
UL 61010-1:2012, CAN/CSA-C22.2 No. 61010-1:2012

3.

**Analog Digital Trainer, Qty. Required : 20**

- Built in Power Supply  
DC. Power Supply: 5V / 1A,  $\pm$  12V, 500mA 0 - + / -12V 150mA (Variable)  
AC 12 - 0 - 12, 150mA AC
- Built in Function Generator  
Output Waveform - Sine, Triangle & Square / TTL  
Output Frequency - 1 Hz to 200 KHz in 6 ranges,  
with amplitude & frequency control pots. O/P  
Voltage 20V p-p max
- Clock Generator: 10 MHz TTL clock.
- Input Data Switches and output LED status indicators for  
High/Low indication (15+1) No
- Pulser switches (2 nos.) With four denounced outputs 2no.
- Fixed TTL (5V) clocks : 4 Nos. 1KHz, 100Hz, 5Hz, 1Hz
- Logic probe to detect High/Low level pulses up to 1MHz,  
with bi-color LEDs to indicate status.
- 2 digit 7 segment display with BCD to 7 segment decoder.
- LED BAR graph with 10 LED indicator to display 0-2.5V or 0-4V input.
- Onboard DPM is provided with mode selection.  
DC volt / current - 200mA/20V - 1no
- Audio Amplifier with gain 20
- Onboard POTS: 1K-(1No.) & 1M - (1No)
- Onboard speaker - 8 $\Omega$ , 0.5 Watt (1no)

	<p>•Built in bread board panel with 1280 tie points and 400 distribution points totaling to 1680 points along with 4mm banana sockets for tapping from the trainer +5V, +12V GND for the circuits to be assembled on bread board using single stand (#22/24)wire.</p>
4.	<p><b>DC Power Supply, Qty. Required : 20</b>  Three Channel DC Output :  0 to 30V / 2A ,  0 to <math>\pm 15V</math> / 1A variable ,  4.5V-5.5V/5A  Setting Resolution : V : 10mV, I : 5 mA  Load Regulation <math>\leq \pm (0.05\% + 10 \text{ mV})</math>  Line Regulation <math>\leq \pm (0.05\% + 10 \text{ mV})</math>  Ripple &amp; Noise <math>\leq 1\text{mV}_{\text{rms}}</math>  Current Limit adjustment : 100mA to max.  Protection : Built in Protection against Overload &amp; short circuit should be provided  Recovery time &lt; 50<math>\mu\text{s}</math>  Insulation  Chassis to output &gt; 10M<math>\Omega</math> at 100VDC  Chassis to AC Plug &gt; 50M<math>\Omega</math> at 500VDC  Digital Display : Switchable, 3 digit seven segment LED for Voltage &amp; current  Input Supply : 230V AC <math>\pm 10\%</math>, 50-60Hz  Operating Temperature : 0 to 40°C</p>
5.	<p><b>3 <math>\frac{3}{4}</math> DIGITAL MULTIMETER, Qty. Required: 20</b>  DC Voltage Range : 400mV ~ 1000V  AC voltage Range : 400mV ~ 750V  DC Current Range : 400<math>\mu\text{A}</math> ~ 10A  AC Current Range : 400<math>\mu\text{A}</math> ~ 10A  Resistance Range : 400 <math>\Omega</math> ~ 40M<math>\Omega</math>  Frequency : 100Hz ~ 30MHz  Capacitance : 4nF ~ 200<math>\mu\text{F}</math>  Temperature : -20deg. C ~ 1000 deg. C  Basic Accuracy : <math>\pm (0.5\% + 4)</math>  Special Function : Transistor Test, Diode Test, Continuity Buzzer, Low battery Indication, Data Hold, Auto power off, Analog bar graph,  Protection : Shockproof protection, Function protection  Duty Cycle : 1%~99%  Sampling Rate : 3 times/s  Input impedance : 10M<math>\Omega</math>  Maximum Display : 3999  LCD Size : 65<math>\times</math>35mm  Battery : 9V</p>