

# NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

Silchar – 788 010 (ASSAM)

No: NITS/PS-639/E&I/Equip/UG Lab/19(R)

Date: 25/02/2019

## NOTICE INVITING TENDER

FOR SUPPLY AND INSTALLATION OF EQUIPMENT FOR UG LAB,  
ELECTRONICS & INSTRUMENTATION ENGINEERING DEPARTMENT NIT SILCHAR



LAST DATE & TIME OF SUBMISSION : 19/03/2019 up-to 01.00 PM

DATE & TIME OF OPENING : 19/03/2019 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-639/E&I/Equip/UG Lab/19(R)**

Sealed Tenders are invited from reputed Firms/Agencies/Manufacturer/Authorized Dealer **FOR SUPPLY AND INSTALLATION OF EQUIPMENT FOR UG LAB, ELECTRONICS & INSTRUMENTATION ENGINEERING DEPARTMENT 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 at the time of return. Bidders registered as NSIC/SSI/MSME are exempted. Necessary Certificate in support must be furnished where applicable.

Detail specification of required item/items are given in **(Annexure–A)**.

Tender document 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://eprocure.gov.in>. **The cost of tender document is Rs.1,000/-** (Non-refundable) to be submitted in the form of DD in favour of The Director, NIT Silchar-788010, Payable at Silchar. The last date and time for submission of Tender document will be 19/03/2019 up-to **01.00PM** and tender(technical bid) will be opened on the same date at **03.30 PM** in office of HOD, E&I Dept., NIT SILCHAR. Price bid of technically qualified bidders only shall be opened in a later date with prior intimation.

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

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

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

The Faculty-In-Charge, Purchase  
National Institute of Technology, Silchar-788 010, Cachar, Assam  
Email : [purchasecell.nits@gmail.com](mailto:purchasecell.nits@gmail.com)

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.**
- Tender/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 tender/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 & indigenous) :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 3-5 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 or 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 3(three) years ending the last day of March 2018.
5. **The rate quoted must be both in words and figures and F.O.R. / Destination National Institute of Technology Silchar -788010, Assam inclusive of all charges i.e. packing, forwarding, octroi, surcharge, insurance, installation, demonstration and other charges if any. 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. Charges of Custom Duty (after concession as per govt. of India), IGST, Custom Clearance without any fine /damarage/ penalty shall be paid by the**

Institute on actual basis subject to submission of original supporting bill/ vouchers. Necessary documentation like DSIR, CDE, GST Concession Certificate, Declaration Certificate, Authorization letter regarding transportation of cleared consignment up-to NIT Silchar shall be provided by the Institute on submission of Order Acceptance and Proforma Invoice. Necessary documents will be furnished if required on demand by the Tenderer(s). Rate quoted for any other destination shall not be accepted and the bid will summarily be rejected. All the custom clearing issues and delivery of ordered items up-to destination i.e. NIT Silchar must be handled by the supplier only.

6. **Quoted rate should be inclusive of all taxes. Nothing extra will be paid by the Institution. If there is any increase / decrease of statutory taxes will be reimbursed accordingly.**
7. **Payment: Payment 100% shall be made only after receipt of ordered items as per specification and quantity and after successful installation, demonstration, training (where applicable) and commissioning.**
  - **Payment: In connections to foreign items payment shall be made through wire transfer / irrevocable Letter of Credit (90% through LC and 10% after receipt of ordered items as per specification and quantity and after successful installation, demonstration, training (where applicable) and commissioning).**
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. **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.**
14. **Bid Price**
  - a) **The contract shall be for the full quantity or as per availability 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, demonstration and 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.**
15. Each bidder shall submit only one quotation.
16. All necessary documents shall be furnished along with the bid.
17. **Validity:** Tenders/Quotations shall remain valid for a period not less than **6 (six) months** after the deadline date specified for submission of tender.
18. **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.

19. **Evaluation of Quotations :**

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

- a) are properly signed
- b) Conform to the terms and conditions, and specifications.

20. **Award of contract:**

NIT Silchar will award the contract to the bidder whose tender/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, Installation Certificate, Performance Bank Guarantee (where applicable) or any other document as required/demand.

21. **Acknowledgement of the Purchase Order:** The supplier shall give an acknowledgement of the Purchase Order within 15(fifteen) 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.

22. 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 30(thirty) days OR as per terms and condition of 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.**

23. **Demurrages and penalty, if any, paid by the supplier shall not be borne by the Institute.**

24. The tenders submitted shall clearly mention the name of the firm/person in whose favour the purchase order is to be placed.

25. 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.**

26. 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.

27. **Successful bidder shall give a performance security @10% or (as per Purchase Order) of the total order value in the form of Bank Guarantee.** The performance security shall be furnished along with the Bill / Invoice 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.

28. 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**

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

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

Place:

Date:



## **CHECK-LIST (TECHNICAL BID)**

### **SUMMARY OF COMPLIANCE TO REQUIREMENT OF TENDER**

<b>Sl. No.</b>	<b>Description of Requirement</b>	<b>Yes / No / NA</b>	<b>Page No.</b>
1.	Tender Cost Rs.1000/- (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/MSME 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**

Item No.	Description of Articles	Number/ Qty. Required
1.	<p><b>8085 MICROPROCESSOR TRAINER KITS</b>  <b>MEMORY:</b> 64KB MAX (32KB EPROM and 32KB RAM) Battery Backup option for RAM  <b>I/O PARALLEL:</b>48 I/O lines using two 8255  <b>I/O SERIAL:</b> One RS232 compatible interface  <b>TIMER:</b> Three 16 bit counter / timer using 8253  <b>KEYBOARD:</b> External PC-AT compatible keyboard  <b>DISPLAY:</b> 16 characters LCD display  <b>PIC:</b> Optional facility for 8259.  <b>MONITOR SOFTWARE:</b> 16KB of system monitor, which allows the user to enter, verify, debug or execute the program either from the on-board PC keyboard and display or through serial mode. On-line assembler using PC keyboard and LCD display  <b>Power Supply for trainer kit along with all interfacing cable should be included.</b></p>	20
2.	<p><b>STEPPER MOTOR INTERFACE</b>  Interface allows the user to study the interface of a single stepper motor, through port lines  Compatible with Microprocessor/ Microcontroller Trainer kits.</p>	03
3.	<p><b>DUAL DAC INTERFACE</b>  Interface allows the user to study 8 bit DAC (0800) for wave form generation.</p>	03
4.	<p><b>8 BIT SUCCESSIVE APPROXIMATION ADC INTERFACE</b>  Based on ADC0809, which is an 8 bit 8 channel ADC with input multiplexer. The conversion time is 100 microseconds.  Input voltage: 0 to 5V.</p>	03
5.	<p><b>KEYBOARD/DISPLAY INTERFACE</b>  This provides the user with 20 keys and a 4 digit display mounted on a single board.</p>	03
6.	<p><b>TRAFFIC LIGHT SIMULATOR</b>  The traffic signals are controlled using a processor.  The signals are indicated by means of Red, Green and Amber LED's.</p>	03
7.	<p><b>ELEVATOR INTERFACE</b>  This interface is designed to simulate an elevator. The interface is an example of a four story building with Green LED indicating that the elevator is in a particular floor and RED indicating request.</p>	03
8.	<p><b>MULTIPLEXED SEVEN SEGMENT DISPLAY</b>  Multiplexing technique in display interface.</p>	02

	6 numbers of seven segment Displays. The Seven segments of all the displays are shorted (i.e. 'a'to 'a', 'b'to 'b'and so on) and are driven from a BCD to seven segment latch Decoder/Driver.	
9.	<b>TEMPERATURE MEASUREMENT INTERFACE</b> This interface consists of a Probe mounted AD590 Temperature Sensor, conditioning Electronics and an 8 bit ADC, AD0809 and it allows the user to study the Interface to a Microcontroller.	02
10.	<b>TEMPERATURE CONTROLLER INTERFACE</b> This interface is used to study the temperature control mechanism using a Microprocessor / Controller. The setup consists of a sensor (AD590), a source of heat energy (water bath) and a control circuit (interfaced to a microprocessor kit) to maintain the temperature of the water bath at a specified value. Temperature can be controlled in the range of ambient to 95 degree centigrade.	03
11.	<b>DC MOTOR INTERFACE</b> It consists of two-way male Reliamate to connect 5V DC MOTOR and four-way power mate connector to supply the +5V voltage to the board.  Input power supply: +5V DC Motor armature voltage : 5V DC Variation of speed : Through the pulse width modulation. (varying the positive pulse width in order to vary the speed of DC Motor) Speed Variation: 400 to 1400 RPM	03
12.	<b>STUDY CARDS</b> <b>a) 8255 STUDY CARD</b> <b>b) 8251 STUDY CARD</b> <b>c) 8279 STUDY CARD</b> <b>d) 8259 STUDY CARD</b>	03 03 03 03
13.	<b>SINGLE CHIP MICROCONTROLLER BOARD</b> Flash programmable AT89C51Ed2 micro controller with operating frequency of 11.0592 MHz. The controller has 64KB of In-System Programmable flash memory, 1792 bytes of external (XDATA) RAM and 2048 bytes of EEPROM. On-chip peripherals like Timers, SPI interface, Programmable Counter Array (compare/capture & PWM), UART and general purpose I/O ports provide enhanced features. On-board LED's On-board push-button switches 16 X 2 Line LCD Alphanumeric Display RS 232C compatible Serial Interface for communication SPI compatible 2 channels 12-bit ADC with Temperature Sensor Interface.	03

	A 26 pin FRC connector CN3 connected to Ports 0, 1 and 2 of the controller for easy interface to standard external interfaces. Operates on 5V DC power	
14.	<p><b>ATMEGA 128 Evaluation Trainer with on board interface &amp; Power Supply</b></p> <p><b>128KB</b> flash program memory.  <b>4KB</b> Internal Static <b>RAM (SRAM)</b>.  <b>4KB</b> of internal <b>EEPROM</b>.  Up to <b>64KB</b> optional External Read/Write memory space.  53 Programmable I/o lines.  On chip debugging and programming capability.  On chip In-System Programming Capability.  Two 8-bit Timer/Counter and Two 16 –bit Timer/Counter  <b>Capture, Compare</b> and <b>PWM</b> modules.  On chip 8 Channel, 10-bit <b>ADC</b> module.  Dual Programmable Serial USART's.  Master/Slave <b>SPI</b> Serial Interface.  On-chip Two wire Serial Interface (<b>I2C</b>)  <b>Watchdog Timer</b> with On-chip oscillator.  On-chip analog <b>Comparator</b>.  Eight external Interrupts.</p> <p><b>ON BOARD INTERFACES:</b>  16x2 alphanumeric display (<b>LCD</b>) with back lighting.  4x4 Keypad Interface.  Circuit to test on-chip <b>Compare, Capture, PWM</b> and <b>Comparator</b>.  <b>RS232C</b> Serial interface through on chip <b>UART0</b> and 9 pin D-sub connector.  <b>5 VDC</b> Relay Interface.  On-board multiturn preset to study on-chip 12-bit ADC.  On Board Thermistor, LDR Interface Circuit.  Suitable Proximity sensor interface circuit.  On-board interface to SPI compatible 12-bit ADC device.  On-board interface to I2C compatible NVRAM.  On-board DC Motor and Stepper Motor interface.  Unused controller lines terminated in <b>berg headers</b>.  Power supply adapter <b>230VAC</b> to <b>5VDC, 1A</b>.</p>	03
15.	<p><b>PIC Evaluation Trainer ,on Board Interface with Power Supply</b></p> <p>IC's supported:  40 Pin Devices  16F871, 16F874, 16F877A  16F74, 16F77  18F4420, 18F4520  28 Pin Devices  16F870, 16F872, 16F873, 16F876  16F73, 16F76  18F2420, 18F2520  18 Pin Devices  16F88, 16F87, 16F84  16F62X,16F64X  Operating Frequency - 4 MHz  RS232, RS485 compatible serial interface for communication  Alphanumeric 16x2 LCD display ; Four no's of 7-seven segment display</p>	03

	<p>Stepper Motor, DC Motor, Relay and Buzzer Interface  4x4 Matrix Keypad, I2C EEPROM, SPI ADC, Temperature sensor  RTC with lithium ion battery ; Capture, Compare, PWM modules interface  26-pin FRC connected to Port B, Port C and Port D to connect to Interface boards  PIC CCS Compiler - Evaluation Version  USB ICD dongle for programming debugging user program for devices with ICD feature - provided with evaluation board  USB ICSP programmer for devices w/o ICD capability- provided with evaluation board</p>	
<p>16.</p>	<p><b>Universal Programmer</b>  <b>Hardware Features</b>  <b>Computer Interface</b> USB  <b>Universal Pin Drivers</b>  48 Pin ZIF socket with universal 48pin-drivers., No adapter required for DIP  <b>Algorithms with machine architecture</b>  Constructed around FPGA to achieve ultra-high programming speed.  <b>Super programming speed</b>  Programs 89C58 in less than 2 seconds.  <b>Over current &amp; over voltage protection</b>  Added on each pin, to protect programmer hardware from destroying, due to bad chip, short circuit and ESD.  <b>User-selectable verification</b>  Select verification voltage, e.g., Vcc, Vcc ±5%, Vcc ±10%. This verification ensures that your device has been programmed properly, preventing failures due to programming errors and ensuring data retention.  <b>Universal PLCC, SOIC, SSOP to DIP adapters</b>  <b>Over 45 different adapters</b>  To support PLCC, SOIC, TQFP, TSSOP &amp; other SMD devices.  <b>Software Features</b>  <b>Support Windows OS</b>  WIN98 SP2/NT/2000/ME/XP/Vista/Win7 32 bit/ Win7 64 bit OS.  <b>File formats supported</b>  Binary, Intel Hex, Motorola S, formats and auto find format.  <b>User-friendly interfaces</b>  with pull-down menus, pop-up dialogue box and help.  <b>OTP- security for AT89C5X</b>  Function available for AT89C51/52. Applying this function will disable Re-programming.  <b>Mass Production mode</b>  Programmer automatically detects &amp; programs device. Furthermore, in the mass-production mode the system keyboard is automatically disabled, preventing the worker from making any accidental mistakes.  <b>Project file save and load</b>  User can create and save a project file which contains device selection, buffer data and all the programming set-up options.  <b>Supports all operations</b>  Such as read, blank check, erase, program, secure, verify and so on.  <b>Set addresses intelligently</b></p>	<p>01</p>

	<p>Device start address, device end address, from buffer address and so on.</p> <p><b>Integrated editors</b> To modify HEX files, JEDEC files with commands – fill, copy, move, swap, etc.</p> <p><b>Supports most of the compilers for PLD's in JEDEC format</b> ABEL, CUPL, PALASM, OrCAD PLD, PLD Designer and ISDATA.</p> <p><b>Add on's</b> Built in 8-channel, logic analyzer, Frequency generator 125Khz &amp; Frequency meter upto 100 KHz.</p>	
.	<p><b>Arduino Board:</b> Arduino Uno Arduino Mega</p>	<p>10 5</p>
18.	<b>Digital Multimeter</b>	2
19.	<b>Bread Board</b>	20