



Institute of Engineering & Technology, Lucknow, Sitapur Road, Lucknow,  
Uttar Pradesh - 226021

### INVITATION LETTER

IET/TEQIP-III/2019-231-6

Package Code: TEQIP-III/2019/UP/iet/297

Current Date: 11-Jul-2019

Package Name: IET-TEQIP-CSED-MICRO PROCESSOR-  
LAB

Method: Shopping Goods

Sub: INVITATION LETTER FOR IET-TEQIP-CSED-MICRO PROCESSOR-LAB

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	DIGITAL BREAD BOARD TRAINER KIT WITH GRAPHICAL LCD	10	Institute of Engineering and Technology, Lucknow	
2	8085 MICROPROCESSOR TRAINER KIT WITH LCD DISPLAY USB INTERFACE AND INBUILT POWER SUPPLY	20	Institute of Engineering and Technology, Lucknow	
3	8086 / 8088 MICROPROCESSOR TRAINING KIT WITH LCD DISPLAY & INBUILT POWER SUPPLY	10	Institute of Engineering and Technology, Lucknow	
4	6264 RAM STUDY CARD	5	Institute of Engineering and Technology, Lucknow	
5	8279 KEYBOARD DISPLAY CONTROLLER CARD	5	Institute of Engineering and Technology, Lucknow	
6	8257 DMA STUDY CARD	5	Institute of Engineering and Technology, Lucknow	
7	8251 USART STUDY CARD	5	Institute of Engineering and Technology, Lucknow	

8	Advance Micro Controller Kit Based On Intel's 8051/31 Micro Controller	5	Institute of Engineering and Technology, Lucknow
9	IC7408	100	Institute of Engineering and Technology, Lucknow
10	IC7432	100	Institute of Engineering and Technology, Lucknow
11	IC7404	100	Institute of Engineering and Technology, Lucknow
12	IC7486	100	Institute of Engineering and Technology, Lucknow
13	IC7400	100	Institute of Engineering and Technology, Lucknow
14	IC7410	100	Institute of Engineering and Technology, Lucknow
15	IC7420	100	Institute of Engineering and Technology, Lucknow
16	IC7402	100	Institute of Engineering and Technology, Lucknow

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. **Quotation**

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.

- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than 60days after the last date of quotation submission.
6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
  - 6.1 are properly signed; and
  - 6.2 Confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract The Purchaser 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.
  - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.
  - 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.
9. Payment shall be made in Indian Rupees as follows:
 

**Satisfactory Delivery & Installation and Acceptance - 100% of total cost**
10. Liquidated Damages will be applied as per the below:
 

Liquidated Damages Per Day Min % :0.50

Liquidated Damages Max % : 10
11. All supplied items are under warranty of 36 months from the date of successful acceptance of items and AMC/Others is .
12. You are requested to provide your offer latest by 05:30 hours on 25-Jul-2019.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) YES

**Annexure I**

Sr. No	Item Name	Specifications
1	DIGITAL BREAD BOARD TRAINER KIT WITH GRAPHICAL LCD	<p><b>SPECIFICATIONS</b></p> <ul style="list-style-type: none"><li>* Breadboard : Interconnected nickel plated fits all DIP sizes and components with lead and sold wire (0.3 - 0.8mm). It can be changed and replaced for different applications and can be connected to a demonstration panel</li><li>* Tie Points : 2320</li><li>* DC Power Supply : + 5VDC/1A (fixed) -5VDC/300mA (fixed) 3V TO 15VDC/500mA (variable) -3V TO -15VDC/500mA (variable)</li><li>* Mode Selection : TTL and CMOS</li><li>* Seven Segment Display : 2 digit</li><li>* Pulse Generator</li><li>* Frequency Range: 1 Hz to 10 MHz in 7 steps. Variable in between</li><li>* Amplitude : 0-10V p-p (CMOS), +5V (TTL)</li><li>* TTL/CMOS Output : TTL : +5V : CMOS : +VDC (depends on the +VDC output)</li><li>* Pulsarswitches: 2 Nos. (Push to On)</li><li>* Data Switches: 8 Nos. (Toggle Switches for both TTL &amp; CMOS)</li><li>* Graphical LCD : To show menu of experiment &amp; gate level diagram</li><li>* LED Display: 8 Nos. (TTL/CMOS Mode)</li><li>* Logic probe : Logic Level Indicator for TTL/CMOS</li><li>* Power : 220V <math>\pm</math> 10%, 50/60 Hz</li><li>* Accessories Included : Mains cord, Operating and experimental Manual (with more than 20 designed Experiments), patch cords.</li></ul>
2	8085 MICROPROCESSOR TRAINER KIT WITH LCD DISPLAY USB INTERFACE AND INBUILT POWER SUPPLY	<p><b>SPECIFICATIONS</b></p> <p>Based on 8085 CPU operating at 6.144 MHz crystal frequency.</p> <ul style="list-style-type: none"><li>* 8K bytes of EPROM loaded with powerful monitor program.</li><li>* 8/32K bytes of RAM available to the user</li><li>* Battery backup provided for RAM area.</li><li>* Total on board memory expansion up to 64K bytes.</li><li>* Memory mapping definable by the user.</li><li>* 16 bit programmable TIMER/COUNTER using 8253.</li><li>* USB Interface to connect kit to computer</li><li>- V-USB Terminal Software to operate kit from USB Port to execute all Commands like Examine Memory, Execute, Assembler, Dissembler &amp; etc.</li></ul>

		<ul style="list-style-type: none"> <li>* No components provided on board, only circuit diagram printed on Board.</li> <li>* 24 programmable I/O lines provided through 8255.</li> <li>* RS-232C interface through SID/SOD Lines with Auto baud rate.</li> <li>* All address, data &amp; control lines are buffered and made available at the edge Connector as per STD bus configuration.</li> </ul>
3	8086 / 8088 MICROPROCESSOR TRAINING KIT WITH LCD DISPLAY & INBUILT POWER SUPPLY	<p><b>SPECIFICATIONS</b></p> <p>Based on 8086/8088 Microprocessor</p> <ul style="list-style-type: none"> <li>* Onboard assembler &amp; disassemble.</li> <li>* 16K Bytes of EPROM Loaded with monitor expandable to 256K Bytes using 27256 with commands like Assemble, Display or Modify Data, Unassembled, Trace, Go.</li> <li>* 16K bytes of CMOS RAM expandable to 128K Bytes using 6264/62256.</li> <li>* 72 I/O lines using three nos. of 8255.</li> <li>* 8 different level interrupt through 8259.</li> <li>* Three 16 bit Timer/Counter through 8253.</li> <li>* 104/105Keys IBM PC Compatible ASCII Keyboard</li> </ul> <ul style="list-style-type: none"> <li>* 20x2 Liquid Crystal Display.</li> <li>* RS-232C Port using 8251.</li> <li>* USB Interface to connect kit to computer</li> <li>- V-USB Terminal Software to operate kit from USB Port to execute all Commands like Examine Memory, Execute, Assembler, Dissembler &amp; etc.</li> <li>* No components provided on board, only circuit diagram printed on Board.</li> <li>* All address, data and control signals (TTL Compatible) available at edge Connector as per Multi Bus. The kit also has its own Resident Bus.</li> <li>* In-built Power Supply</li> <li>* User's Manual.</li> </ul>
4	6264 RAM STUDY CARD	This study card helps to understand the working of Random Access Memory (RAM) 6264. LED's are provided for different signals like Data Bus, Read, Write, Chip Select etc.
5	8279 KEYBOARD DISPLAY CONTROLLER CARD	This study card helps to understand the working of keyboard/display controller. LED's are provided for different signals like Data Bus, Write, Read, Chip Select, A0, INT etc.
6	8257 DMA STUDY CARD	This study card helps to understand the working of Direct Memory Access chip in Different modes. LED's are provided for different signals like Data Bus, Address Bus (A3-A0), TC, HRQ, AEN, IR, IW, MR, MW, CS etc.
7	8251 USART STUDY CARD	This study card helps to understand the functions of Universal Synchronous/ Asynchronous Receiver Transmitter. LED's are provided for different signals like Chip Select, Data Bus, Read/Write, etc. This study card is interface with PC for Giving input from the keyboard and output is taken on monitor.



8	Advance Micro Controller Kit Based On Intel's 8051/31Micro Controller	<p>8031/51 Micro controller (8 bit), operating at 20 MHz crystal frequency.</p> <ul style="list-style-type: none"> <li>• 32K EPROM loaded with Powerful Monitor Program</li> <li>• 32K bytes of RAM available to the user.</li> <li>• 16K /8K Bytes of Scratch pad Ram.</li> <li>• Total On board memory expansion to 64K bytes using 27512/62256 with 3 sockets of 28 pin.</li> <li>• Memory mapping definable by the user.</li> <li>• 48 Programmable I/O lines through 8255</li> <li>• Three 16 Bit Timer/Counters through 8253.</li> <li>• 8251 for RS232C interface for PC</li> </ul> <p>On Board Interrupt Controller</p> <ul style="list-style-type: none"> <li>• On Board Real Time Clock</li> <li>• On Board Battery Back Up for RAM</li> <li>• 20x4 LCD Display</li> <li>• IBM Compatible ASCII Keyboard</li> <li>• On Board A/D Converter</li> <li>• On Board D/A Converter</li> <li>• On Board Opt Isolated Input</li> <li>• On Board Relay contacts</li> <li>• Additional 8 LEDS available for interfacing to Port 1</li> <li>• Additional 8 TTL input available through DIP-Switch</li> <li>• On Board Assembler / Dissembler</li> <li>• Powerful software commands.</li> <li>• Down/Up loading of files from/to PC.</li> <li>• Built in Power Supply</li> </ul>
9	IC7408	IC7408
10	IC7432	IC7432
11	IC7404	IC7404
12	IC7486	IC7486
13	IC7400	IC7400
14	IC7410	IC7410
15	IC7420	IC7420
16	IC7402	IC7402

**FORMAT FOR QUOTATION SUBMISSION**  
(In letterhead of the supplier with seal)

Date: \_\_\_\_\_

To: \_\_\_\_\_

Sl. No.	Description of goods \ (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
<b>Total Cost</b>							

Gross Total Cost (A+B): Rs. \_\_\_\_\_ (Amount in figures)  
 Gross Total Cost (A+B): Rs. \_\_\_\_\_ (Amount in figures)

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of \_\_\_\_\_ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No. \_\_\_\_\_