(93)

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

INVITATION LETTER

IET/TEQIP-III/229-d

Package Code: TEQIP-III/2019/UP/ietl/277
Current Date: 05-Jul-2019

Package Name: IET-TEQIP-ECD-LAB-4
Method: Shopping Goods

Sub: INVITATION LETTER FOR IET-TEQIP-ECD-LAB-4

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	ADVANCE 8051 MICROCONTROLLER BOARD WITH JTAG DEBUGGER	4	Institute of Engineering and Technology, Lucknow	
2	GPIO BOARD	4	Institute of Engineering and Technology, Lucknow	
3	DEVELOPMENT BOARD FOR MSP430 WITH ACCELEROMETER	2	Institute of Engineering and Technology, Lucknow	
4	DEVELOPMENT BOARD FOR MSP430F5529	2	Institute of Engineering and Technology, Lucknow	
5	IOT DEVELOPMENT PLATFORM	1	Institute of Engineering and Technology, Lucknow	
6	WI-FI CC3100 WIRELESS NETWORK PROCESSOR KIT	2	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 **60**days 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 **14:00** hours on **22-Jul-2019.**

13. Detailed specifications of the items are at Annexure I.

14. Training Clause (if any) **YES**

15. Testing/Installation Clause (if any) **YES**

16. Performance Security shall be applicable: **5%**

17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.

18. Sealed quotation to be submitted/ delivered at the address mentioned below, **TEQIP-III Institute of Engineering & Technology, Lucknow,Sitapur Road, Lucknow, Uttar Pradesh - 226021**

19. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)
Name & Designation

COORDINATOR
TEQIP PHASE-III
Institute of Engineering &
Technology Lucknow-21

Annexure I

Sr. No	Item Name	Specifications
1	ADVANCE 8051 MICROCONTROLLER BOARD WITH JTAG DEBUGGER	C8051 F340 CPU Operating up to 48MHz, 4KB on-chip RAM and 64KB on-chip Flash memory, On board JTAG emulation connector, Universal Serial Bus (USB) Function Controller, High-speed pipelined 8051-compatible microcontroller core, In-system, full-speed, non-intrusive debug interface(on-chip), On chip Universal Serial Bus (USB) Function Controller, True 10-bit 200 KSPS differential / single-ended ADC with analog multiplexer, On-chip Voltage Reference and Temperature Sensor, On-chip Two Analog Voltage Comparators, Precision internal calibrated 12 MHz internal oscillator, Internal low-frequency oscillator for additional power Savings, On Chip Programmable Counter/Timer Array (PCA) with five capture/compare modules and Watchdog Timer function, On Chip SMBus/I2C and SPI serial interfaces, On board Data Transfer Interfaces, DB9 connector for UART0 interface, 3 pin header for UART 1 interface, On board Functionalities, JTAG emulation connector, Reset and Run/Program mode (Boot Mode Selection) switch, Two 20-pin FRC Connector for 32 Port I/0 (5 V tolerant), Two user LEDs, Flash Programming using USB port, Integrated development software, Mechanical Parameters: Size-55mm X 110mm, Input Voltage - 9V DC, JTAG Emulator for Real time debugging.
2	GPIO BOARD	All-in-One GPIO Board: The All-in-one GPIO board is specially designed to suit the experimentation of different GPIO devices with the micro controllers, On board display options includes 8 LED, 16x2 character LCD, 2 digit 7-segment display, Switches includes 4 general purpose keys and 2X2 matrix keyboard, EEPROM Based on I2C and SPI for protocol demonstration experiments, Stepper motor and DC Motor interface, Relay output, Facility to provide 2 channel ADC in put using potentiometer and unity gain amplifier for protection, Compatible with different educational practice boards and Arduino Board, Useful resource to learn basic programming techniques to interface basic GPIO components to the controller,
3	DEVELOPMENT BOARD FOR MSP430 WITH ACCELEROMETER	Educational Practice Board for MSP430 features MSP430F2553 CPU working up to 16MHz, 16KB Flash, 512B RAM, 8 Channel 10-bit ADC (Sampling Rate: 200KSPS), On board 8 bit DAC with fix reference voltage as well as variable reference voltage provision, On board 6 pin relimate connector for SPI, On board 4 pin relimate connector for I2C, On board 3 pin relimate connector for 2 channel analog voltage input, On board 10K potentiometer for ADC input, On board TTL UART connector to interface various sensors, On board I2C connector to interface various sensors, On board 20 pin FRC connector to interface GPIO devices, On board dual inline PTH to interface various signals, Accelerometer for MSP430.
4	DEVELOPMENT BOARD FOR MSP430F5529	USB-enabled MSP430F5529 16-bit MCU: Up to 25-MHz System Clock, 1.8-V to 3.6-V operation, 128KB of flash, 8KB of RAM, Five timers, Up to four serial Interfaces (SPI, UART, I2C), 12-bit analog-to-digital converter, Analog comparator, Integrated USB, with a complete set of USB tools, libraries, examples, and reference Guides, The eZ-FET lite emulator, with the application ("backchannel ") UART., Ability to emulate and develop USB applications with a single USB cable, made possible with an onboard USB hub, Power sourced from the USB host. The 5-V bus power is reduced to 3.3 V, using an onboard dc-dc converter, Both male and female 40-pin Booster Pack plug-in module headers, configured for stacking. 20-pin Booster Pack plug-in modules can also be attached,Compatible with the 40-pin Booster Pack plug-in module development tool standard.
5	IOT DEVELOPMENT	Specifications for Smart IoT: Different variety of IOT Nodes featuring Three

	PLATFORM	ARM Cortex-M3&Two Cortex-M4 demonstrate various features like Ethernet, USB, Sensor interfacing, UART, I2C, SPI etc. These nodes enabled to user to learn sensor interfacing and peripheral programming required for IOT application, One unit of Embedded Gateway with HDMI and Ethernet connectivity, USB ports, on board Wifi, on board Bluetooth, Quad Core 1.2GHz CortexA53 64bit CPU, 1 GB RAM. The embedded gateway should be able to connect to the nodes and transmit data to the cloud. The necessary image containing cloud services compatible for IoT should be ported on the board. Also the procedure to configure the same should be provided to end user., Five unit of All-in-one GPIO board designed to suit the experimentation of IoT applications to be provided having following features, On-board display options includes 8 LED, 16x2 character LCD, 2 digit 7-segment display, Switches includes 4 general purpose keys and 2X2 matrix keyboard, I2C and SPI based EEPROM, Stepper motor and DC Motor interface, Relay output, Facility to provide 2 channel ADC input using potentiometer and unity gain amplifier for protection.Experimentation using AWS (Amazon Web service) along with the provided nodes featuring real time IOT experimentation., Voice enabled control using Amazon Alexa enabled Echo Dot with provided node hardware., Experimentation using Google Cloud VM along with the provided nodes featuring real time IOT experimentation., Voice enabled control using Google Assistant Application on Android OS. One unit of Router with power supply, A Bluetooth module for connecting the node to embedded gateway., A portable sensor kit with facility to interface temperature-humidity sensor to log data on IOT gateway using Wi-Fi protocol., Three unit of Cortex M3 Base Board for Interfacing Sensors, A set of sensors for sensing of data and posting it to cloud. The set of sensors should be compatible with nodes and should be provided with proper connectivity options like base board where the sensors can be mounted. The sensors should be compatible with I2C, SPI protocols etc. The sensors should be pluggable. The base board should have 34 pin connector for I2C, SPI, UART, PWM lines available as well as a 10 pin connector for ADC interface with the node., 2KG stepper motor and +5V DC motor for demonstration of cloud based control using IoT application, An IDE configured for IoT applications to be provided for entire lab., Workbook (Softcopy) Manual featuring basic examples to get started with the target board as well as examples to use internet and communicate with cloud, with detailed working procedures will be provided with the setup., The workbook contains examples related to interfacing of sensors as well as posting the data of the sensors on the cloud and take necessary action as required.
6	WI-FI CC3100 WIRELESS NETWORK PROCESSOR KIT	Wi-Fi CC3100 wireless network processor Kit: CC3100 Wi-Fi Network Processor in QFN package, Industry's first devices to be Wi-Fi CERTIFIED™ at the chip level by the Wi-Fi Alliance™, 2 20-pin stackable connectors (Booster Pack headers) to connect to TI Launchpad and other Booster Packs, On-board chip antenna with option for U.FL-based testing , Power from on-board LDO using USB OR 3.3V from MCU Launchpad, 2 push buttons, 4 LEDs , Jumper with 0.1 Ohm resistor for current measurement, 0.8-megabit serial flash, 40 MHz crystal, 32 KHz crystal and oscillator, U.FL and chip antenna, USB, 4 Layer PCB with 6 mm spacing and track width, All the Specifications mentioned in the Tender inquiry are CC3100 chip features and will be supported by Wi-Fi CC3100 wireless network processor Kit.

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)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (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. _____