INVITATION FOR QUOTATION

TEQIP-III/2019/NITMGH/Shopping/108 **02-Jan-2019**

Sub: Invitation for Quotations for supply of Goods in Computer Science Engineering NIT Meghalaya

Dear Sir,

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

Sr. No	Brief Description	Quantity	Delivery Period (In days)	Place of Delivery	Installation Requirement (if any)
1	University program for micro tutor Embedded lab (Application-Basic an advanced embedded lab, sensor & Transducer Lab, IoT Lab, RTOS Lab)	1	15	National Institute of Technology Meghalaya, Bijni Complex, Laitumkhrah Shillong 793003	Yes

1. 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.
2. Quotation,

   2.1 The contract shall be for the full quantity as described above.

   2.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.

   2.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.

2.4 Applicable taxes shall be quoted separately for all items.

2.5 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.

2.6 The Prices should be quoted in Indian Rupees only.

3. Each bidder shall submit only one quotation.
4. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.
5. Evaluation of Quotations,

   The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

   5.1 are properly signed ; and

   5.2 confirm to the terms and conditions, and specifications.
6. The Quotations would be evaluated for all items together.
7. 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.

   7.1 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.

   7.2 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.
8. Payment shall be made in Indian Rupees as follows:

   Delivery and Installation - 90% of total cost

   Satisfactory Acceptance - 10% of total cost
9. All supplied items are under warranty of **24** months from the date of successful acceptance of items.
10. You are requested to provide your offer latest by **3:00** hours on **16-Jan-2019 .**
11. Detailed specifications of the items are at Annexure I.

12. Training Clause (if any) **Yes**
13. Testing/Installation Clause (if any) **Yes**
14. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
15. Sealed quotation to be submitted/ delivered at the address mentioned below,

    Bijni Complex, Laitumkhrah, Shillong 793003
16. We look forward to receiving your quotation and thank you for your interest in this project.
17. **Technical Presentation:** If necessary then the authority may ask the technically qualified bidders to give full presentation or live demonstration of the Quoted equipment at NIT Meghalaya before finalization of the tenders as a support of their specification.

(Authorized Signatory)
Name & Designation

Coordinator
TEQIP
National Institute of Technology
Meghalaya

Annexure I

Sl No	Details Technical Specification
01.	**University Program for Micro Tutor Embedded lab (Application-Basic an advanced embedded lab, sensor & Transducer Lab, IoT Lab, RTOS Lab)** Consisting of: **a) Educational Practice Board for ARM7 LPC2148 and onboard USB based flashing facility - 10 No.s** Should have facility to interface various project board including TFT, RFID, Fingerpint, GSM etc **b) Educational Practice Board for ARM Cortex M3 LPC1768 with on board connector to interface TFT, Touch Screen, USB device, USB host, Ethernet, MMC card, CAN, UART etc. - 10 No.s** Should have facility to interface various project board including TFT, RFID, Fingerpint, GSM etc **c) Educational Practice Board for ARM Cortex M4 with debugger for RTOS experiments- - 10 No.s** with the facility to interface TFT with touch screen, CMOS Camera, Audio port, Ethernet, SDCARD, Sensor interfacing ports, facility to interface GPIO board etc Programming language used for experimentation should be C as well as Micro Python **d) All in one General purpose board - 10 No.s** External pluggable board for GPIO interfaces viz. LED, LCD, 7 Segment-LED, Matrix Keyboard, EEPROM, stepper motor & facility for on board ADC input

e) **CMOS Camera for M4 kit- 1 No**

f) TFT Interfacing kit for M4- 1 No

g) GSM Interfacing Kit - 1 No

h) RFID Interfacing Kit - 1 No

i) Finger print sensor interfacing kit- 1 No

j) 128X64 Graphic LCD interfacing kit for ARM7- 1 No

k) TFT/Touch Screen Interfacing Kit for ARM7- 1 No

l) IDE for ARM7 (Lab License) - 1 No

m) IDE for ARM Cortex Platform (M3/M4) (Lab License) - 1 No

l) Sensor Module Set- 1 No

- Wide variety of sensor options should include: Moisture Sensor,Dust Sensor, Water Sensor,FlameSensor,Accelerometer,Gyrometer,Magneto,Pressure Sensor module, I2C Color Sensor,PIR Motion Sensor, Ultrasonic Ranger, Alcohol Sensor, Sunlight Sensor, Sound Sensor,Mouse Encoder, Vibration Sensor, Touch Key Sensor,Weather Sensor etc.
- Study of different types of sensors, the art of writing sensor interface drivers, initialization firmware for different sensors and implementation on different platforms
- Specially designed base boards with easy plug-in options to interface sensors with different embedded targets

n) Sensor Interfacing Board for EPB CortexM3- 10 No

o) ARM7 Tutor Modules explaining architecture, programming and hands-on lab exercises (Lab License) - 1 No

p)) Gateway- 20 No

- Processor: 400MHz, 24K MIPS
- Flash: 16MB ; RAM: 64MB
- MCU: ATMega328P
- Flash:32KB, RAM:2KB
- LoRa Chip: SX2176/78
- Frequency Range:
- Band 1 (HF): 862 ~ 1020 MHz
- Band 2 (LF): 410 ~ 528 MHz
- 168 dB maximum link budget.
- +20 dBm - 100 mW constant RF output vs.
- +14 dBm high efficiency PA.
- Programmable bit rate up to 300 kbps.
- High sensitivity: down to -148 dBm.
- Bullet-proof front end: IIP3 = -12.5 dBm.
- Excellent blocking immunity.
- Low RX current of 10.3 mA, 200 nA register retention.

	• Fully integrated synthesizer with a resolution of 61 Hz. • FSK, GFSK, MSK, GMSK, LoRa and OOK modulation. • Built-in bit synchronizer for clock recovery. • Preamble detection. • 27 dB Dynamic Range RSSI. • Automatic RF Sense and CAD with ultra-fast AFC. • Packet engine up to 256 bytes with CRC. • Built-in temperature sensor and low battery indicator. • 10M/100M RJ45 Ports x 2 • Wi-Fi : 802.11 b/g/n • LoRa Wireless • Power Input: 12V DC • USB 2.0 host connector x 1 • USB 2.0 host internal interface x 1 • 14 position screw terminal **q) IOT Shield- 20 No.s** ▪ 168 dB maximum link budget. ▪ +20 dBm - 100 mW constant RF output vs. ▪ +14 dBm high efficiency PA. ▪ Programmable bit rate up to 300 kbps. ▪ High sensitivity: down to -148 dBm. ▪ Bullet-proof front end: IIP3 = -12.5 dBm. ▪ Excellent blocking immunity. ▪ Low RX current of 10.3 mA, 200 nA register retention. ▪ Fully integrated synthesizer with a resolution of 61 Hz. ▪ FSK, GFSK, MSK, GMSK, LoRa and OOK modulation. ▪ Built-in bit synchronizer for clock recovery. ▪ Preamble detection. ▪ 127 dB Dynamic Range RSSI. ▪ Automatic RF Sense and CAD with ultra-fast AFC. ▪ Packet engine up to 256 bytes with CRC. ▪ Built-in temperature sensor and low battery indicator. ▪ Compatible with Arduino UNO **r) GPS Shield-20 No.s** ▪ Power Acquisition: 25mA, Power Tracking: 20mA. ▪ Compliant with GPS, SBAS. ▪ Compatible with Raspberry pi ▪ Programmable bit rate up to 300 kbps. ▪ Serial Interfaces UART: Adjustable 4800~115200 bps, Default: 9600bps. ▪ 1Hz (Default), up to10Hz. ▪ NMEA 0183, PMTK. ▪ Horizontal Position Accuracy: Autonomous <2.5 m CEP. ▪ TTFF@-130dBm with EASY™: Cold Start <15s, Warm Start <5s, Hot start <1s;TTFF@-130dBm. ▪ Cold Start <35s, Warm Start <30s, Hot Start <1s. ▪ Velocity Accuracy Without aid <0.1m/s, Acceleration Accuracy Without aid 0.1m/s^2. ▪ Sensitivity Acquisition -148dBm , Tracking -165dBm , Reacquisition -160dBm.

	▪ Dynamic Performance Altitude Max.18000m , Maximum Velocity Max.515m/maximum Acceleration 4G. ▪ L1 Band Receiver (1575.42MHz) Channel 22 (Tracking) /66 (Acquisition). **s) Arduino UNO- 40 No.s** **t) flame sensor, relay, photosensitive sensor, Buzzer, Ultrasonic Sensor, Temperature and Humidity Sensor -20 Nos each** **u) wire (male to male), wire (female to female), wire (female to male)- 400 No.s each**

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: _____