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Electronics & Communication Engg. Deptt.
DELHI TECHNOLOGICAL UNIVERSITY
(Formerly Delhi College of Engineering)
Shahbad Daulatpur, Bawana Road-Delhi-42

letter/DTU/ECE/2023-24/ 283

Dated: 26/02/26

NOTICE INVITING QUOTATION (NIQ)

For Supply of Multi-Microcontroller IoT Trainer (10 Nos.)

Sealed quotations are hereby invited from eligible manufacturers / authorized dealers / suppliers for the supply of **Multi-Microcontroller IoT Trainer Kits (Nos. 10)** in Basics of Electronics lab of ECE department as per the specifications given below:

1. Item Details

Name of Item: Multi-Microcontroller IoT Trainer
Quantity: [10 Nos.]

Technical Specifications:

Supply and Training for Wireless LPWAN based Multi Microcontroller IoT Trainer Kit with Smart applications Used to Monitor and Control multiple Parameters and Enable students to work on Smart applications using Internet of Things Cloud on Board Components of Multi Microcontroller IoT Trainer Kit Microcontrollers and Microprocessors:

- ATmega328P at 16 MHz
- Raspberry Pi Pico W: RP2040 dual-core ARM Cortex-M0+ processor; built-in Wi-Fi, 26 GPIO pins, Micro USB connectivity.
- Built-in LED Pins ,Digital I/O Pins, Analog input pins,PWM pins
- Communication: UART, I2C, SPI,
- Memory: 2KB SRAM, 32KB FLASH, 1KB EEPROM
- RP2040 microcontroller chip
- Dual-core Arm Cortex M0+ processor, the flexible clock running up to 133 MHz
- 264KB of SRAM, and 2MB of onboard Flash memory
- Processor: Broadcom BCM2711, quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz
- Memory: 4GB LPDDR4)
- Connectivity: 2.4 GHz and 5.0 GHz IEEE 802.11b/g/n/ac wireless LAN, Bluetooth 5.0, BLE Gigabit Ethernet 2 × USB 3.0 ports two × USB 2.0 ports.
- GPIO: Standard 40-pin GPIO header
- Arduino Uno

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Key Features & Highlights

Wireless Communication:

- Dual Wi-Fi support for seamless wireless communication for flexible experiments.
- Dual Bluetooth support for wireless communication between microcontrollers allowing versatile IoT experiments.
- Diverse Wireless Protocols:
 - Bluetooth, BLE (Bluetooth Low Energy) , Wi-Fi, Zigbee , LoRaWAN, Cellular
- Multiple Protocol Interfaces:
 - Digital & Analog I/O, I2C, SPI
 - UART Facilitates communication and data transfer between various devices and sensors.

Onboard Sensors & Actuators

- RGB LED , Push Buttons, Buzzer, Slide Switches (2 Nos), Relay Modules, High Precision Potentiometer, Probe Tester, TFT Color Display, GSM Module, Audio Interface, Wireless Modules
- Sensors
 - IR Sensor , LM35 Temperature Sensor, Ultrasonic Sensor (HC-SR04, DHT11 Temperature and Humidity Sensor, Breadboard & Connecting Wires for easy circuit assembly and experimentation.
 - Onsite Hands-on Training should be given for the Wireless LPWAN based Multi Microcontroller IoT Trainer Kit. Sample Codes & Project Manuals for all experiments (soft copy and hard copy). Should be assembled in a Wooden Enclosure.

Cloud Integration & Support

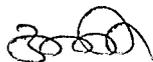
- Cloud Platform Integration:
 - Supports MQTT, HTTP, and LPWAN protocols for cloud connectivity, allowing users to store and process data remotely, and perform real-time monitoring.
- LPWAN: Low Power Wide Area Network (LPWAN) support for remote and long-range IoT applications.

2. Document to be submitted:

- Authorized manufacturer / dealer / supplier
- GST registration certificate
- PAN copy

3. Terms & Conditions

- The quoted price must be inclusive of all taxes, transportation, installation, and demonstration charges.
- Delivery should be completed within [4 week] days from the date of purchase order.
- Payment will be made after successful delivery and installation.
- The authority reserves the right to accept or reject any or all quotations without assigning any reason.



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4. Submission Details

- Last Date of Submission: [11th March 2026]
- Time: [5:30 PM]
- [Head of the Department of ECE, Delhi Technological University, Delhi 110042]
- Quotations should be submitted in a sealed envelope superscribed as:
“Quotation for Multi-Microcontroller IoT Trainer”

Note:- In case the supplier will be



Prof. O. P. Verma
Lab- Incharge
Basics of Electronics lab

Neeta

28/2/26
Prof. Neeta Pande

HOD-ECI

Delhi Technological University

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