



COEP Technological University (COEP Tech)

A Unitary Public University of Government of Maharashtra)

(Formerly College of Engineering Pune)

Wellesley Road, Shivajinagar, Pune - 411005, INDIA.

Department of Electronics and Telecommunication Engineering

NO COEP/E& TC/EN/2025-26/ 54

Date:- 2/3/2026

Corrigendum Enquiry Letter

To,

Subject: Sealed Quotation are invited by the Department of Electronics and Telecommunication Engineering from reputed manufacture/vendor/service provider for the supply with following item. Mentioning our reference letter number, date and due date of quotation on your sealed envelope on or before **06/03/2026**.

Sr. No	Description	Qty.
1	<p>ARM7 TDMI LPC2148 Based Lab Experimental Development System with RTOS Support</p> <ul style="list-style-type: none">The system should be a compact and comprehensive ARM7-based embedded systems development and training kit suitable for academic laboratory use. It should be based on an ARM7TDMI-S core microcontroller operating at a minimum frequency of 72 MHz with at least 512 KB on-chip Flash memory and 32 KB SRAM. The board should use a 12 MHz crystal oscillator and support ISP programming through Serial/USB interface.The development kit should provide on-chip USB device interface for PC communication and at least two UART interfaces with RS232/TTL compatibility.It should support standard communication protocols such as I2C, SPI, UART and USB.The board should include on-board WiFi modules for wireless communication. A 20-pin JTAG header should be provided for debugging along with a proper reset circuit with monitoring facility.All I/O pins of the microcontroller should be made available on FRC connectors to allow flexible interfacing of external modules. Possibly 10 pin FRC connectors with GND & VCC.The kit should include a 16x2 LCD display supporting both 4-bit and 8-bit modes, a 4x4 matrix keypad, a 4-digit 7-segment display, minimum 8 input switches, minimum 8 output LEDs, on-board	08

	<p>buzzer and relay interface.</p> <ul style="list-style-type: none"> • The system should support DC motor, stepper motor and servo motor interfacing through on-board driver circuitry and provide PWM outputs. Indication LEDs for motor activity should be available. • The board should provide on-chip ADC with all channels accessible and on-board DAC output available on connector. It should include an on-board temperature sensor (such as LM35 or equivalent), an LDR sensor, and a test potentiometer for ADC experiments. • The kit should provide JST connectors (minimum 3-pin × 2 and 4-pin × 2) for interfacing external analog and digital sensors. • The system should include on-board I2C EEPROM, SPI-based SD card slot and suitable expansion connector. It should support on-chip RTC with 32 kHz crystal and battery backup. • Power supply should be through USB and/or external 9-12V DC adapter with on-board regulated power supply circuitry. • The supplier should provide necessary software support including GCC-based IDE or equivalent C compiler, evaluation version of standard IDE, sample programs for all peripherals, RTOS example codes, and soft copy of user manual and experiment documentation. The complete package should include the development board, power adapter, USB cable, serial cable and documentation. 	
2	<p>ESP32 DEVELOPMENT KIT</p> <ul style="list-style-type: none"> • The system should be a compact and modular ESP32-based embedded development and training kit suitable for academic laboratories, prototyping, and advanced embedded system development. • It should be based on a dual-core 32-bit microcontroller module equivalent to ESP32-WROOM-32D, operating on Xtensa architecture. • The microcontroller should support on-chip WiFi (IEEE 802.11 b/g/n) with data rates up to 150 Mbps and integrated Bluetooth BLE (minimum version 4.1). The board should include an on-board 40 MHz crystal oscillator and external flash memory of minimum 4 MB (higher options such as 8 MB or 16 MB acceptable). • The system should be programmable using Arduino IDE and PlatformIO and should support USB-based ISP programming. • All microcontroller I/O pins should be made available through 10-pin FRC connectors to allow flexible interfacing of external modules. The board should include a minimum of three 10-pin FRC connectors for general-purpose I/O access. • The kit should include a 16×2 alphanumeric LCD display, a 4-digit 7-segment display, a 4×4 matrix keypad, and minimum four capacitive touch keys. It should provide at least eight digital input 	08

	<p>switches and eight digital output LEDs for logic experiments.</p> <ul style="list-style-type: none"> • The system should include minimum two relay outputs and one on-board buzzer. • It should support DC motor and stepper motor control with appropriate driver circuitry and dedicated control keys for start, stop, reverse, increment and decrement operations. • An RGB LED with PWM control should be provided. • The development kit should provide 12-bit ADC with minimum four channels accessible and at least one DAC channel available on test points or connector. • A 5-pin polarized connector should be provided for external multi-channel ADC input and a suitable connector with test points should be provided for DAC output access. • The system should include on-board I²C-based RTC with battery backup provision and I²C EEPROM for storage applications. An SD card interface supporting cards up to 16 GB capacity should be provided (SD card not mandatory in supply). • The board should include an on-board temperature sensor (such as LM35 or equivalent) and an IR sensor. It should provide JST connectors (minimum 3-pin × 2 and 4-pin × 2) for interfacing external analog and digital sensor modules. The system should support expansion through a 10-pin UEXT or equivalent connector carrying I²C, SPI, and UART signals. • The development kit should provide USB Type-C interface for programming and power. It should also include a 3-wire RS485 communication port for industrial communication experiments. • The system should operate through USB power and/or regulated external supply as applicable and should include on-board voltage regulation circuitry. • The supplied package should include the ESP32 development board enclosed in a suitable protective enclosure (wooden or plastic box), USB Type-C programming cable, minimum four 10-pin FRC cables, user manual, and sample programs compatible with Arduino IDE and PlatformIO covering all on-board interfaces and peripherals. 	
3	<p>RASPBERRY PI 5 LAB SOLUTIONS</p> <ul style="list-style-type: none"> • Raspberry Pi 5 (original boards) with up to 4GB RAM, dual-band Wi-Fi, Bluetooth 5.0 and Gigabit Ethernet. • Over-voltage protection for all GPIO pins during interfacing • Easy access via 10-pin × 4 polarized box headers (LCD, 7-Segment, Motor Driver, etc.) • 3-pin, 4-pin, and 6-pin JST connectors for direct sensor interfacing • Compatibility with our 40+ ready-to-use sensor boards for various applications 	08

	<p>Deliverables:</p> <ul style="list-style-type: none"> • RPI5 Model B Original Board × 1 • RPI5 Power Supply × 1 • 32GB Class 10 Micro SD Card × 1 • Micro HDMI Cable × 1 • USB-C Cable × 1 • 10 pin FRC x 4 • 3pin, 4pins, 6pins JST F-F cables – 1 each 	
4	<p>ESP32-BASED LORA DEVELOPMENT AND TRAINING KIT</p> <ul style="list-style-type: none"> • The system should be an ESP32-based Lora Development and Training Kit designed for laboratory experimentation and wireless communication studies. • The system should be an ESP32-based LoRa Development and Training Kit designed for laboratory experimentation and long-range wireless communication studies. The kit should integrate an ESP32 microcontroller along with a LoRa transceiver module equivalent to RA-02 mounted on a single PCB for compact and reliable operation. • The system should support programming through a USB Type-C interface. • The LoRa module provided should be based on the Semtech SX1278 LoRa transceiver (as used in RA-02) and should operate in the license-free ISM band suitable for laboratory experimentation. • The module should support long-range communication using LoRa spread spectrum modulation with configurable bandwidth, spreading factor, and coding rate. It should support half-duplex communication through an SPI interface with the ESP32. The module should provide adjustable transmit power and high receiver sensitivity suitable for low-power IoT communication experiments. The design should allow point-to-point communication and basic LoRa networking experiments within the laboratory environment. • The board should include a minimum of eight push buttons and eight LEDs for digital input/output experiments. • It should provide at least two 5V relay outputs suitable for load control demonstrations. A 10-segment LED bar graph display should be available for visual indication experiments. The system should include an on-board LDR sensor and LM35 or equivalent temperature sensor for analog interfacing experiments. A 0.96-inch OLED display should be provided for real-time data display and communication status monitoring. • The kit should include minimum three potentiometers for analog input testing and an RGB LED with PWM control for LED dimming and color-mixing experiments. All onboard interfaces including switches, LEDs, relays, sensors, display, and other peripherals should 	04

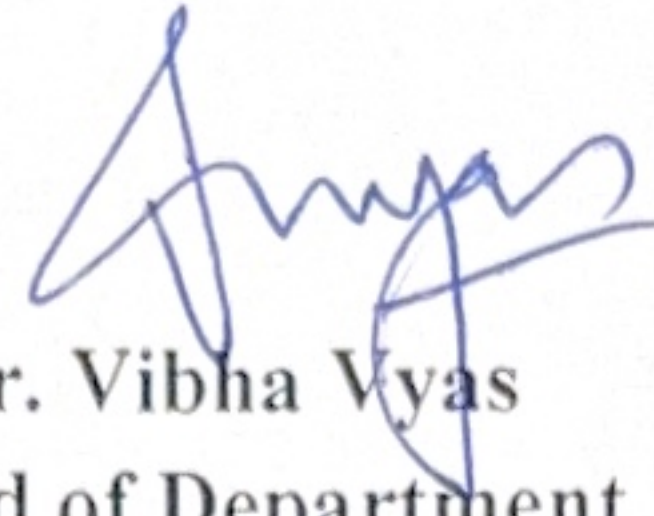
	<p>be accessible through 10-pin FRC connectors to provide flexible I/O routing and experimentation.</p> <ul style="list-style-type: none"> • The system should also provide additional JST connectors for external sensor and peripheral interfacing. • It should include a minimum of two 3-pin JST connectors for analog and digital sensors, two 4-pin JST connectors for UART and I2C-based sensors and peripherals, and one 6-pin JST connector for SPI-based sensors and peripheral modules. • The kit should be suitable for long-range IoT communication experiments, low-power wireless data transmission studies, sensor node development, gateway-to-node communication testing, and embedded systems training applications using LoRa technology. 	
5	Warranty period from the date of Installation and Testing	2 Years
6	Cost (Exclusive of all Taxes) in Rs.	
7	GST % in Rs.	
8	Total Amount (Inclusive of all Taxes) in Rs.	

Terms and Condition

- 1 Incomplete quotation will be rejected without consideration.
- 2 **All listed items should be quoted /supplied by one vendor/party.**
- 3 The applicable Taxes, GST, Insurance, freight, packing and forwarding charges if any should be quoted separately.
- 4 The University reserves the right to accept or reject any or all quotation
- 5 Mentioned in quotation payment terms, delivery period, quotation validity and warranty
- 6 Supplier shall be responsible for successful installation, commissioning and testing of the supplied equipment.
- 7 No advance will be paid. Payment will be released after successfully installation of said work.
- 8 No quotation will be entertained by E-mail/FAX
- 9 The University reserves the rights to split the purchase order.
- 10 The University reserves the rights to cancel any of the items of tender without any reason thereof.
- 11 The University reserves the rights to cancel purchase order, before the delivery of material without giving any reason thereof.
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- 21 The University reserves the rights to cancel purchase order, before the delivery of material without giving any reason thereof.
- 22 Quotations shall be sent in sealed envelopes clearly marked Quotation for Supply of, Enquiry Number, Enquiry date and Enquiry due date addressed to **The Head, Department of Electronics &**

Telecommunication Engineering, COEP Technological University Pune-411 005. If specification not given as per our enquiry the quotation will be rejected.

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Dr. Vibha Vyas

Head of Department

Electronics & Telecommunication Engineering
COEP Technological University, Pune