



**Kavayitri Bahinabai Chaudhari North Maharashtra
University, Jalgaon
School of Computer Sciences**

KBCNMU/SOCS/26/ 96 /2026

DATE: 18/08/2026

Enquiry Letter

The sealed quotations are invited in the Prescribed Performa “DULY PRESCRIBED THEREON AND ALSO ON THE ENVELOP “QUOTATION” FOR THE SUPPLY of the RGS&TC Project. The detailed description of which are enclosed herewith/is a noted below.

Sr. No.	Details of stores material/ equipment	Qty.	Technical specifications
1	ESP32-S3 Development Board	01	32-bit microcontroller development board with integrated Wi-Fi and Bluetooth/BLE connectivity; minimum 160 MHz processing capability; minimum 4 MB Flash; minimum 520 KB SRAM; operating voltage 3.3 V; adequate GPIO, ADC, UART, SPI and I ² C interfaces; USB programming interface; suitable for IoT and sensor data acquisition applications. ESP32 or equivalent/higher specification
2	RS485 Interface Module	01	Industrial-grade sensor interface module compatible with the microcontroller and 7-in-1 soil sensor; support for RS485 communication; Modbus RTU compatibility; suitable for interfacing soil sensors with digital communication; regulated power supply and electrical protection provisions; suitable for outdoor agricultural applications.
3	7-in-1 Soil Sensor (N, P, K, pH, EC, Moisture, Temperature)	01	Integrated soil sensor capable of measuring Nitrogen (N), Phosphorus (P), Potassium (K), pH, Electrical Conductivity (EC), Soil Moisture and Soil Temperature; digital RS485/Modbus RTU communication; suitable for direct soil insertion; corrosion-resistant probe; waterproof construction, preferably IP68; suitable for agricultural soil monitoring; operating voltage typically 9–24 V DC or as required by the system; supplied with suitable communication cable and connector.
4	Lithium Battery Pack	01	Rechargeable lithium battery pack suitable for powering the complete IoT system; nominal voltage compatible with the system power circuit; adequate capacity for continuous field operation; integrated protection against overcharge, over-discharge, short circuit and over-current; rugged enclosure and suitable connectors. Battery capacity shall be selected to provide adequate backup for the proposed system.
5	Battery Charging & Protection Circuit	01	Battery Management System (BMS) / charging and protection circuit compatible with the selected lithium battery; protection against overcharge, over-discharge, over-current, short circuit and thermal conditions; regulated charging; suitable for solar-assisted battery charging; compatible with the system voltage and battery capacity.



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6	Solar Panel (20–30 W)	01	Solar photovoltaic panel suitable for outdoor agricultural deployment; rated power 20–30 W ; nominal voltage suitable for the selected charge controller and battery system; weather-resistant construction; high-efficiency photovoltaic cells; supplied with suitable mounting provisions and solar cables/connectors.
7	Solar Charge Controller	01	Solar charge controller compatible with the selected solar panel and lithium battery; suitable for solar battery charging; PWM/MPPT technology, preferably MPPT; appropriate charging voltage/current rating; protection against overcharge, over-discharge, reverse polarity, short circuit and over-current; suitable for outdoor operation.
8	IP65 Polycarbonate Enclosure	01	Outdoor electrical/electronic enclosure made of UV-resistant polycarbonate or equivalent material; minimum IP65 protection ; suitable dimensions to accommodate PCB, microcontroller, power circuitry and battery; provision for cable glands and mounting hardware; corrosion-resistant; hinged/lockable cover preferred; suitable for agricultural field installation.
9	Waterproof Connectors & Cable Glands	01 Set	Outdoor-rated waterproof connectors and cable glands compatible with enclosure, sensor, solar panel and power connections; minimum IP65/IP67 protection as applicable; UV-resistant and corrosion-resistant; suitable for the cable sizes used in the system. Complete set.
10	Industrial Wiring Harness & Cables	01 Set	Industrial-grade cables and wiring harness for sensor, power, communication and solar connections; suitable cross-sectional area and current rating; UV-resistant and weather-resistant insulation; shielded cable for RS485 communication where required; properly terminated with suitable connectors, ferrules and cable markers. Complete set.
11	Custom PCB Fabrication & Assembly	01	Custom-designed PCB suitable for integration of microcontroller, sensor interface, power management and protection circuits; FR-4 material; minimum 1.6 mm thickness preferred; copper tracks suitable for operating current; PCB fabrication, component mounting, soldering, testing and assembly included; PCB shall be supplied fully assembled and tested.
12	PCB Components (ICs, Connectors, Passive Components, Terminal Blocks, Protection Circuits)	01 Lot	Complete set of electronic components required for PCB operation, including ICs, connectors, terminal blocks, resistors, capacitors, diodes, transistors, voltage regulators, protection devices, communication interface components and other required passive/active components; industrial-grade components preferred. Complete lot.



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13	Mounting Brackets & Mechanical Hardware	01 Set	Suitable corrosion-resistant mounting brackets, clamps, screws, nuts, bolts, spacers and other mechanical hardware required for installation of enclosure, solar panel and sensor assembly; suitable for outdoor agricultural conditions. Complete set.
14	Power Regulation Circuit	01	DC-DC voltage regulation/power management circuit suitable for converting the battery/solar system voltage to the required regulated voltage levels for microcontroller, sensors and other electronics; adequate current rating; high efficiency; protection against over-voltage, over-current, short circuit and thermal conditions.
15	Miscellaneous Electronics, Fasteners & Consumables	01 Lot	Required electronic and mechanical consumables for complete system assembly and installation, including wires, terminals, heat-shrink sleeves, connectors, fuses, cable ties, screws, soldering consumables, insulation materials and other necessary accessories. Complete lot.

TERMS & CONDITIONS:

1. If the supplier desires to quote rates of the various brands pertaining to the above items.
2. The material will be accepted only if it conforms to the specifications and/or selection of/ by university. The University reserves the right to reject the materials if for unsatisfactory/not as per the specifications. In case the University rejects the materials, the responsibility towards expenditure incurred therefore shall not rest of the University and expenditure will be defrayed by the supplier only.
3. The catalogue price list giving full details and the rates of taxes, if any, should be quoted separately. In case the price list is inclusive of sales tax, a mention to that effect be clearly made Jalgaon Municipal council has been kind enough to exempt this University from levying Octroi duty and when demanded a certificate to that effect will be issued and as such Octroi charges should not be levied and the prices should be exclusive of Octroi duty.
4. The supplier while taking order for supply of material if required to deposit 1% amount of the total cost and/or 5% be entered into, the same will have to be made.
5. While quoting the rates, the supplier should bear in mind the condition of Home Delivery, necessitating transpiration charges to be borne by the supplier only.
6. In case supplier fails to supply the material and/or refuses to make supply even after placing the order on him, the material will be purchased from the another supplier and in an event, the University is required to suffer any loss in such a transaction, the first supplier shall have to bear the cost Difference to the extent of loss suffered by the University.
7. In case the Excise Duty is charged the GP-1, form must be enclosed with the bill.
8. The firm falling under the Sales Tax Act & Shop Act are only eligible to send the quotation It is essential on the part of the suppliers to mention the sales Tax Registration / Certificate No. & Shop Act. No. in the quotations and bills.
9. The condition of suppliers with regard to the payment through Bank and condition of advance payment will not be accepted in any circumstances. The payment will be made by cheque only.



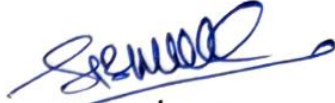
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10. The successful bidder should submit a printed original bill of GST mentioning the University's GST No.27AAAJN0465A1ZL while submitting the payment proof of payment of the GST amount in the bill will be required to be submitted. The payment will be made after 30 days after the recommendation of concern regarding the satisfactory performance of work.

11. The quotations should reach the School of Computer Sciences, KBCNMU, Jalgaon within 15 days of issuing of this notice. i.e. on or before **02.09.2026**.


Dr. Girish D. Chate
(CO-PI)




Dr. Sandip S. Bhamare
(Principal Investigator)


Director
School of Computer Sciences
K.B.C.N.M.U., Jalgaon.

To,
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