

Kavayitri Bahinabai Chaudhari
North Maharashtra University, Jalgaon
 Post Box No. 80, Umavi Nagar, Jalgaon-425001

Phone No. : +91-257-2257475

Ref. No. : KBCNMU/24/Tender/SOPS/DOE/IOT/53/2023

Date:-11/02/2023

Sealed quotations are invited in the prescribed proforma duly super scribed, thereon, and on the envelope, "QUOTATION", for the following equipment in the Department of Electronics. The details description of which is described below:

Sr. No.	Name of the item and its description	Technical Specifications	Quantity
01	IOT Trainer Kit - Cortex-M4/M3 or equivalent	IOT Trainer kit -Node - 2 no - Different variety of IOT Nodes featuring Two ARM Cortex-M4 or equivalent with features like Ethernet, USB, Sensor interfacing, UART, I2C, SPI, GPIO interfacing connector etc.	01
02	IOT Trainer Kit node – AI Node	IOT AI Node - 01 No - One unit of Artificial Intelligent Embedded GPU Node with pre-configured SSD, SATA Cable, USB Camera, USB Hub, USB Mouse, and USB Keyboard.	01
03	All in One General Purpose Board	GPIO Boards - 3 no , Three unit of All-in-one GPIO board designed to suit the experimentation of IoT applications to featuring On-board 8 LED, 16x2 character LCD, 2 digit 7-segment display, 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	05
04	IOT Gateway or equivalent	IOT Gateway - 1 no , One unit of Embedded Gateway with HDMI and Ethernet connectivity, USB ports, on board Wi-Fi, on board Bluetooth. Quad Core 1.2GHz CortexA53 or equivalent 64-bit 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. In addition, the procedure to configure the same should be provided to end user.	01
05	Bluetooth	A Bluetooth module for connecting the node to embedded gateway.	01
06	Router	One unit of Router with power supply	01
07	Portable Sensor Kit - WioNode	A portable sensor kit with facility to interface temperature-humidity sensor to log data on IOT gateway using Wi-Fi protocol.	01
08	IOT sensor kit With interfacing cable	A set of sensors like IMU10DOF Sensor, Temperature & Humidity Sensor, Ultrasonic Sensor, Vibration Sensor, Color Sensor, Sunlight Sensor, Water atomizer Sensor, etc... 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	01

		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.	
09	Stepper Motor	2KG Stepper motor and +5V DC motor for demonstration of cloud based control using IoT application	01
10	DC Motor	--	01
11	WSN/Zigbee Trainer Kit	WSN/Zigbee Trainer Kit compatible with ARM Cortex M4 or equivalent IoT Nodes and Gateway.	01
12	IDE Configured for ARM7 & Cortex Platform	An IDE configured for IoT applications to be provided for entire lab.	01
13	MSO22-70 BW 70 MHZ 2 channel scope with serial protocol decoder like I2C/SPI/CAN /UART etc..	--	01
14	Triple Channel Power supply Keithley 2231A-30-3	--	01

Note:-

- Quotation must be sent to "Head, Department of Electronics, School of Physical Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University, Post Box No. 80, Umavi Nagar, Jalgaon-425001 "
- Closing date for the submission of quotations is 04/03/2023 or before 21 days

TERMS AND CONDITIONS

1. The supplier should quote the rates of given brand pertaining to the above equipment.
2. The equipment will be accepted only if it confirms to the specifications and / or selection of / by university. The university reserves the right to reject the equipment if found unsatisfactory / not as per as the specifications. In case, the University rejects the equipment, responsibility towards expenditure incurred thereon shall not rest on the university and the suppliers will defray expenditure only.
3. The catalogue price list, giving full details and rates of taxes, if any, should be quoted separately. In case, the price list is inclusive of sales tax, a mention to that effect is clearly made. Jalgaon municipal council has been kind enough to extend this university from levying of octroi duty and when demanded a certificate to that effect will be issued and as such octroi charges should not be levied and the price should be exclusive of octroi duty.
4. The supplier while taking order for supply of equipment is required to deposit 1% amount of the total cost and / or 5% rentation amount if need arises. In case, an agreement is required to 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 transportation charges to be borne by the supplier only.
6. In case, a supplier fails to supply the equipment and / or refuses to make supply even after placing the order on him, the equipment will be purchased from the other 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. The payment in respect of all equipment will be made only after the technical advisor of the university has satisfactorily duly approved the same. In case of imported equipment, payment will be made through irrevocable letter of credit.
8. In case, the excise duty is charged, the GP-1 form must be enclosed along with the bill.
9. The firm falling under the sale tax act and shop act is only eligible to send the quotations. It is essential on the part of the supplier to mention the sale tax registration / certificate No. and shop act No. in the quotations and bills.
10. The condition of supplier with regard to the payment through the bank and condition of advance payment will not be accepted in any circumstances. The payment will be made by cheque only.

11. The quotation addressed in same of "**Head, Department of Electronics, School of Physical Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University, Post Box No. 80, Umavi Nagar, Jalgaon-425001**" should reach the university office **within 21 days or before 04/03/2023 of issuing of this notice.**
12. Quotations received by fax will not be accepted. Also quotations received after due date will not be accepted.
13. The university reserves the right to accept or reject the quotation without assigning any reason thereof.
14. The consignment should be strictly supplied into the stipulated period. On the failure, the significant penalty will have to be paid by the supplier for each delayed day.
15. While quoting the rates, detailed bifurcation detailed such as basic price, excise duty, sales tax should be given.
16. We have been exempted from payment of excise duty payable on equipment required for research project.
17. **Following documents must be attached with quotation of "IOT Trainer kits and its accessories".**

Sr. No	Description
1	Details information of the bidder (As per tender PART-I) Should be submitted on letter head
2	Registration certificate of the company issued under the company act or by any other competent authority in case of proprietary / partnership firm etc.
3	Copy of GST registration certificate
4	Copy of PAN card
5	Copies of Income tax return filed during last three financial years. (2016-17, 2017-18, 2018-19)
6	Copies of SSI / NSIC / DGS/MSME registration certificate.
7	Proof of annual turnover for the last three financial years
8	Receipts of payment Cost of tender and earnest money deposit paid through Internet Banking
9	Audited balance sheet & profit & Loss account of the company / firm duly audited by Chartered Accountant for last three financial years.
10	Copies of ISO and relevant quality assurance certificate of the product offered in the BID.
11	Printed Literature / broacher / catalogue of the quoted product.
12	Authorization letter from OEM in case of authorized Dealer/ Distributors
13	The sheet of detailed technical specifications with make and model No. of quoted product. (As per tender PART-III)
14	Bidder's Declaration on letter head (as per tender PART-IV)
15	Full set of tender document with seal signature on each page of bidders or his authorized representative
16	List of Clients
17	Undertaking for Blacklist



(Prof. A. M. Mahajan)

Head,
Department of Electronics
School of Physical Sciences,
Kavayitri Bahinabai Chaudhari
North Maharashtra University,
Jalgaon – 425 001



॥ अंतरी पेटवू ज्ञानज्योत ॥
कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव
Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

SCHOOL OF PHYSICAL SCIENCES

**TENDER DOCUMENTS FOR
SUPPLY AND INSTALLATION OF
IOT TRAINER KITS AND ITS ACCESSARIES**

[PART – I, II, III & IV]

Price Rs. 2000/-

REF:-KBCNMU/24/Tender/SOPS/IOT/53/2023, Date: 11/02/2023

**FOR MORE DETAILS VISIT THE PORTAL OF
www.nmu.ac.in**

(Total Pages 01 to 10)

Last Date for Submission of Tender: - 04/03/2023



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Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

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PART – I
(DETAILS OF THE TENDERER)

- 1) Name of the Supplier/Firm/Company :
- 2) Mailing address :
- 3) Telephone/Email/ Fax Numbers :
- 4) Constitution of the Company/Proprietary :
Partnership Firm/Pvt./Public Ltd. Co. :
- 5) Experience in business :
- 6) * Income tax return for last three :
Financial years :
(2019-20, 2020-21, 2021-2022) :
- 7) * Shop Act. Registration No. :
- 8) * GST Registration No. :
- 9) * PAN No. :
- 10) * Statement of Accounts from last three :
years – (2019-20, 2020-21, 2021-2022) :
- 11) Details of Earnest Money & Cost of :
Tender (D. D. No. & Date) :
- 12) * Name of the company of which :
you are authorized dealer etc. :
(attested copy of certificate of authorized- :
dealership must be enclosed)

(For the items marked (*) relevant documents must be enclosed with part - I.)

Signature & Seal of the Tenderer



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Part-II

Technical, General and Commercial Conditions of the tender:

- 1) The tender is called for TENDER DOCUMENTS FOR SUPPLY AND INSTALLATION OF “IOT TRAINER KITS AND ITS ACCESSARIES”
- 2) **EARNEST MONEY:-** Vendors are required to submit a Demand Draft of Nationalized Bank of **Rs.10,000/- (Rupees- Ten Thousand Only)** as **Earnest Money** Deposit along with the tender. The Demand Draft must be drawn in favour of “**Finance and Accounts officer, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon**”. In addition to Earnest Money Deposit Vendor is required to give a demand draft of **Rs.2,000/- (Rupees Two Thousand only)** towards the **cost of tender** (non-refundable) along with the tender. Offers made without E.M.D. & Cost of Tender will be rejected. If the tenderer, whose tender is accepted, refuses to accept the order, the amount of E.M.D. will be forfeited.
- 3) **Payment:** 100% payment after satisfactory supply and Installation & technical committee report received from the technical committee. Within 30 days from the date of supply No part payment will be made. Rates quoted should be inclusive of GST. The payment will be made by cheque /RTGS mode only.
- 4) **Delivery Period:** - All material must be supplied within 02 weeks from the date of receipt of purchase order. If bidder fails to deliver the order material within time, university will entitle to recover penalty as liquidated damage @ 0.5% of total value of invoice each week.
- 5) **Terms of Delivery :** F.O.R. K.B.C.N.M.U. (Department of Electronics, SOPS, KBCNMU, Jalgaon)
- 6) **Security Deposit:** The successful tenderer will have to give security deposit to the extent of 5% of total order value within 7 days from the date of receipt of purchase order. The amount of security deposit with out any interest thereon will be returned to the tender after satisfactory completion of work. The amount of Security deposit will be forfeited in case of successful bidder refuses to supply the material within stipulated period and if the installation of equipments is not satisfactory.
- 7) **Rates mentioned in commercial bid must be inclusive of GST.**
- 8) Tender offer must be valid for a period of 120 days after the date of opening of tender. Any offer failing short of the validity period is liable for rejection.
- 9) All disputes are subject to Jalgaon Jurisdiction.
- 10) Tender is being called in two envelopes system. i.e. the technical bid and commercial bid. The technical bid comprises part-I details of the tenderer, Part-II Technical bid and Part III general and commercial conditions of the tender The Commercial bids comprises Part IV. The tenderer has to submit both the bids in separate envelopes.

- 11) The Tenderer must submit his offer in two separate envelopes A-B envelope-A will contain part I, II, III and Envelope –B will contain part IV both the envelopes must be super cried as “**Tender for Supply and Installation of “IOT TRAINER KITS AND ITS ACCESSARIES”**”
- 12) **Performance Bank Guarantee:-** The successful bidder will have to submit the performance Bank Guarantee along with invoice equivalent to 5% of total value of invoice towards Performance Bank Guarantee for the period of 60 days from the date of supply and installation of instrument.
- 13) The University reserves the right to accept or reject any or all the tenders from any or all the parties without assigning reason thereof.
- 14) Tender offer should be complete in all respect and as per the format as prescribed by the university. Incomplete offers would not be entertained.
- 15) Copies of shop Act Registration, GST /Shop Act, PAN Registration etc. should be enclosed along with part-I
- 16) The University reserves the right to delete/ increase/ decrease items from the schedule of requirement specified in the tender.
- 17) The University reserves the right to accept or reject all or any tender without assigning any reason whatsoever.
- 18) Tender received after due date and time will not be considered whatever may be the reason therefore. In case tender are sent by post / speed post courier etc.It shall be responsibility of the tenderer to ensure that they are received before due date and closing office hours.
- 19) The rates without any corrections or overwriting should be quoted for each individual item separately. Otherwise tender will be liable to rejected.
- 20) The decision of the University regarding this will be final and shall be binding on tenderer. The University reserves the right to accept or reject the entire tender.
- 21) The Venders black listed by the University are not eligible for submitting the tender. If they do so there tender will not be considered.
- 22) Supplier shall fill up the rate in appropriate place. (i.e. PART – IV- (Commercial Bid)
- 23) The last date for submission of tender shall be **04/03/2023** during office hrs. (10.00 am to 5.40 pm) at “Director, School of Physical sciences, KBCNMU, Jalgaon-425001
- 24) **Warranty:-** The bidder should clearly mention the period of warranty of all types of Instruments.

Place :- Jalgaon.

Date :- 11/02/2023

Finance & Accounts Officer

Signature & Seal of Vendor in

Token of acceptance of all
Terms & conditions of tender

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Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

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**Technical Bid
Tender Part-III**

Technical details of Supply and Installation of “IOT TRAINER KITS AND ITS ACCESSARIES”

Sr. No.	Details of store Materials equipment	Qty	Technical Specification
01	IOT Trainer Kit - Cortex-M4/M3 or equivalent	01	IOT Trainer kit -Node - 2 no - Different variety of IOT Nodes featuring Two ARM Cortex-M4 or equivalent with features like Ethernet, USB, Sensor interfacing, UART, I2C, SPI, GPIO interfacing connector etc.
02	IOT Trainer Kit node – AI Node	01	IOT AI Node - 01 No - One unit of Artificial Intelligent Embedded GPU Node with pre-configured SSD, SATA Cable, USB Camera, USB Hub, USB Mouse, and USB Keyboard.
03	All in One General Purpose Board	05	GPIO Boards - 3 no , Three unit of All-in-one GPIO board designed to suit the experimentation of IoT applications to featuring On-board 8 LED, 16x2 character LCD, 2 digit 7-segment display, 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
04	IOT Gateway or equivalent	01	IOT Gateway - 1 no , One unit of Embedded Gateway with HDMI and Ethernet connectivity, USB ports, on board Wi-Fi, on board Bluetooth. Quad Core 1.2GHz CortexA53 or equivalent 64-bit 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. In addition, the procedure to configure the same should be provided to end user.
05	Bluetooth	01	A Bluetooth module for connecting the node to embedded gateway.
06	Router	01	One unit of Router with power supply
07	Portable Sensor Kit - WioNode	01	A portable sensor kit with facility to interface temperature-humidity sensor to log data on IOT gateway using Wi-Fi protocol.
08	IOT sensor kit With interfacing cable	01	A set of sensors like IMU10DOF Sensor, Temperature & Humidity Sensor, Ultrasonic Sensor, Vibration Sensor, Color Sensor, Sunlight Sensor, Water atomizer Sensor, etc... 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.
09	Stepper Motor	01	2KG Stepper motor and +5V DC motor for demonstration of cloud based control using IoT application
10	DC Motor	01	--
11	WSN/Zigbee Trainer Kit	01	WSN/Zigbee Trainer Kit compatible with ARM Cortex M4 or equivalent IoT Nodes and Gateway.
12	IDE Configured for ARM7 & Cortex Platform	01	An IDE configured for IoT applications to be provided for entire lab.
13	MSO22-70 BW 70 MHZ 2 channel scope with serial protocol decoder like I2C/SPI/CAN /UART etc..	01	--
14	Triple Channel Power supply Keithley 2231A-30-3	01	--
Note:- For more details of Technical Specifications of IOT and its accessories, please see ANNEXURE-I. This is as per our Lab requirements.			

Signature & seal of the tenderer.

ANNEXURE – I

Sr. No.	Specifications for Smart IoT Lab:
1	IOT Trainer kit -Node - 2 no - Different variety of IOT Nodes featuring Two ARM Cortex-M4 or equivalent with features like Ethernet, USB, Sensor interfacing, UART, I2C, SPI, GPIO interfacing connector etc.
2	IOT AI Node - 01 No - One unit of Artificial Intelligent Embedded GPU Node with pre-configured SSD, SATA Cable, USB Camera, USB Hub, USB Mouse, and USB Keyboard.
3	IOT Gateway - 1 no , One unit of Embedded Gateway with HDMI and Ethernet connectivity, USB ports, on board Wi-Fi, on board Bluetooth. Quad Core 1.2GHz CortexA53 or equivalent 64-bit 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. In addition, the procedure to configure the same should be provided to end user.
4	GPIO Boards - 3 no , Three unit of All-in-one GPIO board designed to suit the experimentation of IoT applications to featuring On-board 8 LED, 16x2 character LCD, 2 digit 7-segment display, 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
5	Whole setup is organized to operate IOT Lab's Experimentations from remote terminal using internet. And whole setup can be programmed, operate, control using remote terminal and results can be seen from anywhere in campus or from anywhere in the world using internet.
6	One unit of Router with power supply
7	A Bluetooth module for connecting the node to embedded gateway.
8	A portable sensor kit with facility to interface temperature-humidity sensor to log data on IOT gateway using Wi-Fi protocol.
9	A set of sensors like IMU10DOF Sensor, Temperature & Humidity Sensor, Ultrasonic Sensor, Vibration Sensor, Color Sensor, Sunlight Sensor, Water atomizer Sensor, etc... 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.
10	WSN/Zigbee Trainer Kit compatible with ARM Cortex M4 or equivalent IoT Nodes and Gateway.
11	2KG Stepper motor and +5V DC motor for demonstration of cloud based control using IoT application
12	An IDE configured for IoT applications to be provided for entire lab.
13	Softcopy for Workbook/ 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.

14 – Mixed Signal Oscilloscope - 1 no

Sr. No.	Features	Specifications
1	Bandwidth	70 MHz on all Channels or better & Field upgradable to 500MHZ
2	No of Channels	4 Analog Channels
3	Digital Channel	Maximum 16 channel field upgradable
4	Pattern Generator	4 bit Pattern Generator field upgradable
5	Signal Source	50 MHZ Arbitrary Function generator inbuilt
6	Sampling Rate	Max 2.5Gs/s on all channels
7	Record Length	10M Each Channel
8	Vertical Resolution	8 Bits & up to 16 Bits with High Resolution Mode or better
9	Input Sensitivity range	1 mV/div to 10 V/div max.
10	DC Gain accuracy	±3.0 % step gain,
11	Max Input Voltage	300 VRMS Installation Category II
12	Input Coupling	DC, AC
13	Vertical Zoom	Vertically expand or compress a live or stopped waveform
14	Acquisition Mode	Sample, Peak Detect, High Resolution, Faster Acquisition, Envelope, Averaging
15	Time Base range	2 ns/div to 1000 s/div on all channels & 1ns/div to 1000 s/div on half channels
16	Horizontal zoom	Horizontally expand or compress a live or stopped waveform
17	De-skew range	-95 ns to +95 ns
18	Trigger Modes	Auto, Normal single sequence
19	Trigger Type	Edge, pulse width, runt, timeout, logic, setup & hold, rise/ fall time, and parallel bus
20	Serial Trigger Decode & Analysis	System should have facility for Serial bus decode like I2C, SPI, RS-232/422/485/UART, CAN, CAN FD, LIN, and SENT
21	Trigger Coupling	DC, Noise Reject, High Frequency Reject, Low Frequency Reject
22	Waveform measurement	36 measurement types includes Amplitude, Time, Gating & cursor measurements with N number measurements in result table displayed simultaneously along with the waveform signal
23	Advanced Measurement	Arithmetic (Add, Subtract, and Multiply waveforms) Mask Testing & Act on Event should have inbuilt in scope
24	FFT	Dual window FFT with simultaneous time and frequency domain in same screen, Spectral magnitude. Set FFT Vertical Scale to Linear RMS or dBV RMS, and FFT Window to Rectangular, Hamming, Henning, or Blackman-Harris, cursor Measurement should be available for FFT measurements
25	Display	10.1 Inch LCD capacitive touch display, LAN Port, USB ports , Display port DVI-d, VGA, instrument should provide cloud drive connectivity to store & recall the waveforms remotely
26	Input Output Ports	USB 2.0 Host Port, USB 2.0 device port, Kensington Style Lock
27	Remote control	VNC compatible to remotely control and view the screen on the instrument

15 - Triple channel power supply - 1 no

Sr. No.	Features	Specifications
1	No Of Channels	3 isolated channel
2	Output Voltage & Current	CH-1: 0-30V/3A; CH-2: 0-30V/3A; CH-3: 0-5V/3A -30 to 30 V/3A; 60V/3A; 30V/6A
3	Input Voltage	230VAC $\pm 10\%$.
4	Maximum Power	195W
5	Load & Line Regulation	
	Voltage	$\leq 0.02\% + 4\text{mV}$
	Current	$\leq 0.2\% + 3\text{mA}$
6	Ripple & Noise (20Hz -20 MHz)	
	Voltage	$\leq 1\text{mVrms}/\leq 5\text{mVp-p}$
	Current	$\leq 6\text{mA rms}$
7	Setting/read back Resolution & Accuracy	
	Voltage	10mV, $\leq 0.06\% + 20\text{mV}$
	Current	1mA, $\leq 0.2\% + 10\text{mA}$
8	Operation Modes	
	Tracking Mode	To maintain the ratio on the two-30V output channels that is present when the control is activated.
	Combination V1+V2 series mode	Should supply up to 60V when CH1 and CH2 are wired in series. Meter to read back combined voltage.
	Combination I1 + I2 Parallel Mode	Should supply up to 6A when CH1 and CH2 are wired in parallel. Meter to read back combined current.
9	Memory	Should have Store frequently used configurations in any of 30 setup memory locations
10	Output Timer Range	Should Turn off any output after a predetermined test time with each channel's output timer. OUTPUT TIMER RANGE: 0.1s to 99999.9s.
11	CONNECTIONS	Front: Power output jacks: 3 sets, safety-shrouded banana jacks. Rear: DB9 connector for remote control,
12	OVERTEMPERATURE PROTECTION	If the internal temperature of the supply exceeds 85°C, the supply should automatically turn off
13	Display	Vacuum fluorescent display with display voltage and current measurements continuously from all three outputs
14	Connectivity & Software	USB connections to control and Programmed the power supply using pc based software and have complete control over all the channels to operate simultaneously
15	EMC COMPLIANCE	Conforms to European Union EMC Directive
16	SAFETY COMPLIANCE	Conforms to European Union Low Voltage Directive
17	Warranty & Calibration certificate	3 years and NABL Accredited calibration certificate should be available along with unit



Signature & seal of the tenderer

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Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

SCHOOL OF PHYSICAL SCIENCES

**PART – IV (Commercial Bid)
SUPPLY AND INSTALLATION OF IOT TRAINER KITS
AND IT'S ACCESSORIES**

Date: / /2023

To,
The Finance & Accounts Officer,
Kavayitri Bahinabai Chaudhari
North Maharashtra University,
P.O. Box No. 80,
Umavinagar, Jalgaon.

Sub:- Submission of Commercial Offer.

Dear Sir,

In response to your advertisement in KBCNMU/24/SOPS/IOT/..../2022, Dtd...../..../2022, we hereby submit our best possible rates for items mentioned in technical bid (Part-III) of this tender form.

Sr. No.	Item Description	Qty.	Rate (Inclusive of GST)
1	2	3	4
01	IOT Trainer Kit - Cortex-M4/M3 or equivalent	01	
02	IOT Trainer Kit node – AI Node	01	
03	All in One General Purpose Board	05	
04	IOT Gateway	01	
05	Bluetooth	01	
06	Router	01	
07	Portable Sensor Kit - WioNode	01	
08	IOT sensor kit With interfacing cable	01	
09	Stepper Motor	01	
10	DC Motor	01	
11	WSN/Zigbee Trainer Kit	01	
12	IDE Configured for ARM7 or equivalent & Cortex Platform or equivalent	01	
13	MSO22-70 BW 70 MHZ 2 channel scope with serial protocol decoder like I2C/SPI/CAN /UART etc..	01	
14	Triple Channel Power supply Keithley 2231A-30-3	01	

Signature & Seal of the tenderer