



राष्ट्रीय उन्नत विनिर्माण प्रौद्योगिकी संस्थान  
(पूर्व नेशनल इंस्टीट्यूट ऑफ फाउंड्री एंड फोर्ज टेक्नोलॉजी)  
हटिया, राँची - 834 003 (झारखण्ड)

**National Institute of Advanced Manufacturing Technology**  
(Formerly National Institute of Foundry and Forge Technology)  
Hatia, Ranchi – 834 003 (Jharkhand)

सं No. – NIAMT/S&P/33/2025-26

दिनांक Date - 27 / 5 / 2025

Limited Tender Enquiry

To,

LAST DATE FOR RECEIPT OF BID

ON 18/6/25 BY 3:00 PM

OPENING OF BID

ON 18/6/25 AT 3:30 PM

Sir/Madam,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions mentioned overleaf. If you are interested, kindly send your offer by Speed/Registered Post with price and complete terms on or before the date mentioned above.

Item No.	Description of Item	Qty.	EMD	Performance Security
1.	Internet of Things (IoT) Lab Solutions (Entuple TRU-IoT Platform) (Specification enclosed in Annexure -5)	1	₹21,000	5% of P.O.

## **TERMS & CONDITIONS FOR SUBMISSION OF QUOTATION**

1. **Rate:** The rate quoted must be net inclusive of packing, forwarding, freight, and all other incidental charges. The stores are required to be delivered at this Institute under the supplier's own arrangement free of additional charges. The risk of damage or loss in transit, if any will be the suppliers. In case the aforesaid terms are not considered, the acceptable charge payable will be required to be specified clearly at ad variorum or lump sum rate. Manufacturer's price list wherever applicable, should be submitted. Packing, forwarding, freight, entry tax etc., when not included in the price, are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
  2. **EMD:** An EMD of Rs.21,000 /- to be submitted online (RTGS/NEFT) in the following Institute a/c
    - a. Name of Beneficiary: **National Institute of Advanced Manufacturing Technology (NIAMT)**
    - b. Account No.: **2730101006939**
    - c. Name of Bank: **Canara Bank, NIFFT CAMPUS Branch,**
    - d. Bank Address: **Hatia, Ranchi – 834 003 (Jharkhand)**
    - e. IFS Code: **CNRB0002730**
    - f. MICR Code: **834015008**
    - g. Swift Code: **CNRBINBBCFD**
- Bidders registered with MSME for services and upon submitting valid certificate will be exempted from submission of EMD. The details of transaction for EMD viz. Name of bidder firm, Tender Description, Transaction ID Number Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the tenderer on their letterhead separately along with their tender.
3. **Taxes:** Excise Duty and GST should be quoted as separate items. It may be noted that the Institute is exempt and/or entitled for concessional rate. An appropriate certificate in prescribed format will be provided with the Purchase Order, wherever applicable.
  4. **Warranty:** Items must be under warranty for minimum **one year(s)**. The quotation must contain the terms of warranty, and extended warranty, if available.
  5. **Delivery Period:** The stores are required to be delivered at our location within **30 days** from the date of issue of the Purchase Order. Purchase Order will be sent by post with a scan copy by email. All offers of delivery should be made ex-stock, and a clear note should be inserted in case exstock delivery is not possible.
  6. **Quality & Specification of Stores:** The stores offered should be of the best quality available, unless otherwise specified, confirming strictly to the specifications cited. The Institute reserves the right to reject the stores as found unacceptable on these grounds.
  7. **Performance Security:** To ensure due performance of contract, Performance Security is required to be submitted by successful bidder has been awarded the contract. The Performance Security will be **5%** of the value of the contract. The Performance Security may be furnished in the form of Account payee, Demand Draft, Fixed Deposit, Bank Guarantee from nationalized bank or online payment. The Performance Security shall remain valid for period 60 days beyond the date of completion of all contractual obligations of the supplier, including warranty obligations.
  8. **Liquidated Damage:** If a firm accepts an order and fails to execute the order in full or part as per the terms and conditions stipulated therein, it will be open to this Institute to recover liquidated damages from the firm at the rate 0.5% of the value of the undelivered stores per week or part thereof, subject to a maximum of 10% of the value of the undelivered stores. It will also be open to this Institute alternatively, to arrange

procurement of the required stores from any other source at the risk and expense of the firm, which accepted the order but failed to execute the order.

9. **Submission of Quotation:** All quotations must be forwarded in sealed cover addressed to **Asst. Registrar (S&P), National Institute of Advanced Manufacturing Technology, Hatia, Ranchi-834003**, so as to reach within the specified date and time. The reference to the Enquiry No. and the last date for submission must clearly be super-scribed on the sealed envelope. To ensure receipt of quotations in time intending suppliers are advised to mail them sufficiently in advance. If no counter offer is made in the quotation, it will be taken for granted that the offer is strictly in accordance with the specification and terms and conditions laid down in this enquiry. Quotations may be sent by Speed/Registered Post or courier, or delivered in person. There is no provision for giving a receipt if the quotation is delivered in person.
10. **Opening of Quotation:** Quotations received within the scheduled time and date will be opened in the Administrative Building, First Floor at the time mentioned. A firm may send its authorized representative to witness the opening, if it so desires.
11. **Period of Validity:** A quotation shall remain valid for acceptance at least for a period of 180 days from the date of opening.
12. **GST & Income Tax Clearance:** Up-to-date GST & Income Tax Clearance Certificate should be attached with the quotation.
13. **Payment:** Payment will be made online by RTGS/NEFT only normally within 30 days from the date of receipt of the stores in good condition, and the invoice.
14. **Rejection of Offers:** The Institute reserves the right to ignore or reject any or all offer(s) including the lowest one without assigning any reason.

  
Asst. Registrar (S&P)

**SIGNATURE OF TENDERER**

**ALONG WITH SEAL OF THE COMPANY WITH DATE**



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**Annexure – 1**

**PRICE REASONABILITY CERTIFICATE**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. ....dated.....for (Value Rs.) .....

We would like to certify that the quoted price are the minimum and we have not quoted the same item on lesser rates than those being offered to NIAMT to any other customer within last 12 months from the last date of submission of quotation nor we will do so till the validity of offer or execution of purchase order, whichever is later.

**Seal and Signature of the tenderer**



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Annexure - 2

Name of Equipment with Model No: .....

Name & Address of Manufacturer: .....

Price Quoted:

A. For Indigenous Equipment:

- i) Cost of equipment (Rs.): .....
- ii) GST (Rs.) : .....
- iii) Any other charges (Rs.): .....
- iv) Total cost of equipment (in Rs.) F.O.R, NIAMT, Ranchi. : .....

B. For Imported Equipment:

- i) Cost of equipment (In Foreign Currency): .....
- ii) Packing and Forwarding: .....
- iii) CIF Price: .....
- iv) Freight charges up-to Ranchi Airport / Ranchi Railway Station: .....
- v) Insurance (110% of the cost of the equipment): .....
- vi) For NIAMT Ranchi: .....

Signature of Tenderer with date and seal



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**Annexure - 3**

**BID PARTICULARS**

1. Name of the Supplier:
2. Address of the Supplier:
3. Availability of demonstration of equipment: Yes / No
4. Tender cost enclosed: Yes/No if yes
5. Online EMD submission information enclosed: Yes / No  
if Yes Transaction ID/No. of  
Transfer:.....  
Transaction date: .....  
Amount of Transaction: .....  
Name of Bank: .....  
Address of Bank: .....
6. Name and address of the Officer/contact person to whom all references shall be made regarding this tender enquiry

Name

Address:

Ph:

Fax:

Mobile:

Email:

Web:





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**Annexure – 4A**

**Compliance Statement for the Tender Specifications**

Tender Ref No.:

Sl. No.	Check list of documents / Undertakings	Yes / No	Remarks (give explanation if the answer is No)
01.	Is EMD details attached? (if applicable)		
02.	Is the bidder original equipment manufacturer (OEM)/authorized dealer?		
03.	If authorized dealer, recent dated certificate to this effect from OEM, attached or not?		
04.	Undertaking from OEM regarding technical support & extended warranty period.		
05.	Validity of 180 days or not?		
06.	Price Reasonability Certificate enclosed as per format?		
07.	Undertaking from bidder regarding acceptance of tender Terms & Conditions		
08.	Whether list of reputed users (along with telephone numbers of contact persons) for the past three years specific to the instrument attached?		
09.	Does the instrument comply with all the specifications detailed? Attach a separate sheet showing compliance with the specifications and explanations thereto if the equipment varies from the requested specifications.		
10.	Whether free installation, Commissioning and Application Training offered?		
11.	Whether comprehensive onsite warranty offered?		
12.	Whether Annual maintenance after expiry of comprehensive onsite warranty quoted separately?		



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**Annexure – 4B**

**Compliance Statement of Technical Specification**

Sl. No.	Parameter as per Annexure-5	Yes / No	Page No.	Remarks

Place:-

Date:-

Authorized Signatory  
Seal of bidders



## Specification of Internet of Things (IoT) Lab Solutions (Entuple TRU-IoT Platform)

Sl. No.	Description	Bundle
01.	<p><b><u>Complete TRU-IoT Platform</u></b></p> <p>Specification as per <b>Annexure: 5</b></p> <p>Tru-IoT Lab Solution with Manual with Source Code in soft copy, Onsite installation, and demonstration</p>	01 complete bundle

### Annexure : 5

#### Specification of Complete IoT Platform (For 01 complete bundle)

- **Discrete nodes (08 Units):** which comes with a Dual-Core 32-bit LX6 Microprocessor, 520 KB of SRAM, 448 KB of ROM which will be helpful in edge computing, supports Wi-Fi, Bluetooth, Zigbee, LoRa and LTE. Supports 18 channels of 12-Bit ADC. Serial Connectivity include 4 x SPI, 2 x I2C, 2 x I2S, 3 x UART. Supports Motor PWM and up to 16-channels of LED PWM.
- **Integrated nodes (02 Units):** which comes with an in-built touchscreen display, stackable modules for enhancing its functionality (such as LTE, Ethernet, etc.), Dual-Core 32-bit LX6 Microprocessor, 520 KB of SRAM, 448 KB of ROM which will be helpful in edge computing, Supports Wi-Fi, Bluetooth, Zigbee, LoRa and LTE. Supports 18 channels of 12-Bit ADC. Serial Connectivity include 4 x SPI, 2 x I2C, 2 x I2S, 3 x UART. Supports Motor PWM and up to 16-channels of LED PWM.
- **Tru IoT Gateway with cable and supported accessories (02 Units) :** which comes with Quad core ARM based 64-bit SoC and 8GB LPDDR4-3200 SDRAM and 128GB of ROM for AI and ML operations. Supports seamless connectivity of up-to 10 devices using WiFi and Gigabit Ethernet. Supports communication protocols such as HTTP/s, MQTT, Web socket, TCP, UDP, XMPP, etc. 28x user GPIO supporting various interface options: – Up to 6x UART – Up to 6x I2C – Up to 5x SPI – 1x SDIO interface – 1x DPI (Parallel RGB Display) – 1x PCM – Up to 2x PWM channels – Up to 3x GPCLK outputs.  
 2 × micro-HDMI ports (up to 4kp60 supported), 2-lane MIPI DSI display port, 2-lane MIPI CSI camera port, 4-pole stereo audio and composite video port, Micro-SD card slot for loading operating system and data storage, 2 USB 3.0 and 2 USB 2.0, 5V DC via USB-C connector (minimum 3A\*), 5V DC via GPIO header (minimum 3A\*) through which we can use it as a stand-alone PC.  
 Gateway should have edge computing capabilities and support performing basic Machine Learning algorithms and should be able to perform Analysis and analytics on the local data.  
 Gateway should be capable of communicating the data bidirectional from Cloud platforms and with Nodes.
  - Should be capable of multicore processing.
  - Should be capable of performing high speed computation using Integrated minimum 520Kbytes of SRAM.
  - Should contain an in-built LCD screen, speakers, and battery to facilitate multiple level of edge computing (Local monitoring) and prototyping (Finished products).
  - Should be capable of providing connectivity over WiFi, BLE, LoRa and Zigbee.
  - Should contain the following Built-In Peripherals

- ADC and Built in Sensors
  - Digital to Analog Convertor
  - Touch Sensor
  - Ethernet MAC Interface
  - SD/SDIO/MMC Host Controller
  - UART
  - I2C Interface
  - I2S Interface
  - SPI Interface
  - Pulse Width Modulation (PWM)
- Nodes should be capable of performing edge computing and should be able to communicate between them in single and multi-hop configurations.
  - Nodes should be capable of communicating to opensource cloud platforms directly through built-in communication protocols and should be able to connect to gateway effortlessly.
  - **AWS cloud** platform with a 200\$ credit for performing ML and AI operations on Big data stored in Cloud using AWS analytical engine. Comes with tools which allows users to develop their own ML and AI algorithms and Deploy for the live use cases.
  - Standard Machine Learning and Self Learning algorithms will be provided for the applications which are already developed which will be included in Lab manuals.
  - **Sensors Pack (01 Set):** PIR sensor, Ultrasonic sensor, GPS, Pressure sensor, Tactile/Push button sensor, Temperature and Humidity sensor, Light sensor, Gas sensor, Soil moisture sensor, ECG sensor, pulse sensor, Ardu cam
  - **Actuators Pack (01 Set):** Dual Channel relay, Servo Motor, DC Motor, Motor Driver, Stepper Motor, Motor driver board, OLED display, Buzzer, Solenoid valve, LED pack
  - **Communication/Networks/Protocols Supported:** Wi-fi, BT/BLE, Zigbee, LTE, LoRa
  - **Application Layer Protocols Supported:** MQTT, HTTP/s, SMQP, Web socket, XMPP, AMQP
  - **Tru IoT Software Suite**– System Software, Apps, IDE, Pre-installed Development Environment
  - Should be having 40 plus Experiments developed across levels.
  - The supplier should be able to demonstrate (online/onside) the above-mentioned capabilities before the technical evaluation committee within a notice of 1 week.