



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्ड, भारत, पिन-826004

(शिक्षा मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्व का एक संस्थान)

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD

DHANBAD, JHARKHAND, INDIA, PIN-826004

(An Institute of National Importance under Ministry of Education, Govt. of India)

PROJECT PURCHASE SECTION Phone: (0326)2235203 || Email: projectpurchase@iitism.ac.in || Website: www.iitism.ac.in

File No. EE-PRJ-020-25-26

Date: 07th August, 2025

Request for Quotation

To,

Subject: Supply & Installation of Micro-Lab Box Controller

Sir,

Indian Institute of technology (Indian School of Mines), Dhanbad is interested in the purchase of the materials/ equipment listed below:

Sl. No.	Detailed Specifications	Quantity
1	Supply & Installation of Micro-Lab Box Controller (Specification in Annexure –I)	01 No.

INSTRUCTIONS:

- Please attach relevant technical literature of the item.
- Please enclose authorization certificate for OEM.
- Please mention warranty/ guarantee period in your offer. Equipment/ material supplied must have minimum warranty/ guarantee of **12 months**
- Price Basis: FOR IIT (ISM) Dhanbad
- The items/ materials shall be required to be delivered to the **Electrical Engineering Department of IIT (ISM) Dhanbad** at the risk and cost of the tenderer.
- Please attach a certificate that the quoted price is not more than that of any other Govt. organization/ institution in India. This has to be mentioned in the offer letter clearly.**
- The rates should be quoted for each item separately as per price schedule attached as annexure I
- Your tender must be **valid for minimum 120 days** from the date of opening of tender.
- Full details of items/materials offered should be given in the tender along with supporting & relevant literatures/ Technical Literature.
- Tender may please be submitted **in sealed cover only superscribed with Enquiry No. EE-PRJ-020-25-26 latest by 28.08.2025.**
- EMD:** EMD of an amount of **Rs. 34,000/-** in form of Demand Draft in favor of Registrar, IIT (ISM) Dhanbad payable at Dhanbad. EMD can also be submitted in the form of Term Deposit Receipt/ Fixed Deposit Receipt/Bank Guarantee drawn in favor of Registrar, IIT(ISM)Dhanbad
- Performance Security:** To ensure due performance of the item, you are required to submit performance security. Performance security should be for an amount of five percent (5%) of the value of the supply order. Performance security may be furnished in the form of a Demand Draft/ Fixed Deposit Receipt / Bank Guarantee from a commercial bank in favor of Registrar IIT (ISM) Dhanbad, payable at Dhanbad. Performance security should remain valid for a period of 14 Months from the date of final acceptance/Installation. The performance security will be refunded without any interest, provided that the performance is satisfactory.
- The offer must be submitted in the office of **Deputy Registrar (Project Purchase Section), Office of Dean R & D, 2nd Floor, IRH Building, IIT (ISM), Dhanbad– 826004 (Jharkhand, India)** only. Please send your offer by Registered Post/ Speed Post/ Courier along with Courier receipt. Tender/ quotation will be received during IIT (ISM) Dhanbad working hours only (i.e. Monday to Friday). At any circumstances, delivery is not acceptable by hand. Late or delayed tenders shall be summarily rejected. Bids sent through Email/Fax or submitted in unsealed cover(s) will not be accepted and such bids will be treated as non-responsive bids.
- Any other information that you may like to obtain, you are free to contact IIT (ISM) Dhanbad before submission of tender.



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- 15) IIT (ISM) Dhanbad reserves the right to accept and/or to reject any/all tenders without assigning any reason.
- 16) **Payment:** Payment shall normally be made within 4 weeks subject to satisfactory supply, submission of tax invoice and delivery challan in triplicate (as per Purchase Order Terms) of the ordered materials/items. *Advance payment is not admissible.*
- 17) You are requested to fill in the enclosed **Annexures**.
- 18) **Please attach purchase order copies of the same equipment which you have supplied to any other Govt., public sector and autonomous institutions.**
- 19) **a) In a tender, either the Indian agent on behalf of the principle/ OEM and the Principle/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.**
b) If an agent submits bid on behalf of the principle/ OEM, the same agent shall not submit a bid on behalf of another principle/ OEM in the same tender for the same item/product.

For and on behalf of
IIT(ISM), Dhanbad

Deputy Registrar
(Project Purchase Section)
O/o Dean (R&D)

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Phone: (0326)2235203

Email: projectpurchase@iitism.ac.inWebsite: www.iitism.ac.in**File No. EE-PRJ-020-25-26****Date: 07th August, 2025****Annexure-I****Technical Specifications of Micro-Lab Box Controller**

Sr. No.	Detailed Specifications of the Item	
1.	Processor & Memory	➤ Real-time processor Intel® Core™ i3, 1x 2, 2 GHz, 8 GB DDR4 RAM ➤ Host communication processor ARM® Cortex®-A9, 2x 1.2 GHz, 512MB DDR4 RAM
2.	FPGA	➤ AMD® Kintex® UltraScale+ XCKU15P, 125 MHz
3.	Angular Processing Unit	➤ Speed range: -1,200,000 °/s ... 1,200,000 °/s (- 200,000 rpm ... 200,000 rpm) ➤ Serial interface- 2 X UART (RS232/422/485) interface ➤ Angular resolution: • 360° mode: 360°/215 ≈ 0.011° (15 bit resolution) • 720° mode: 720°/216 ≈ 0.011° (16 bit resolution)
4.	Communication interfaces	➤ Host interface: Integrated 1 Gb Ethernet host interface ➤ Ethernet real-time I/O interface: 1x low-latency 10 Gb Ethernet interfaces ➤ USB: USB 2.0 interface for data logging and as storage for real-time applications ➤ CAN interface: 2x CAN FD with Signal Improvement Capability (SIC) ➤ Serial interface: 2x UART interfaces supporting RS232, RS422, or RS485 ➤ High-speed serial: 1x Multi-Gigabit-Transceiver interface (MGT)1, connected to the FPGA's GTY- Transceivers
5.	Analog input	➤ 24x 16 bit channels, 2 MS/s, -10...+10V, differential ➤ 6x 16 bit channels, 5 MS/s, -10...+10V, differential ➤ 2x 16 bit channels, 5 MS/s, -10...+10V, differential, with load resistor
6.	Analog output	➤ 14x 16 bit channels, 2.5 MS/s, ground-based, -10V...+10V ➤ 2x 16 bit channels, 5MS/s, ground-based, -10V...+10V
7.	Digital I/O	➤ 48x bidirectional channels: • Input characteristics: Voltage range 0 - 35V, configurable threshold, up to 20 MHz input frequency, 25ns minimum pulse width • Output characteristics: Output high voltage 3.3/5V, up to 20 MHz output frequency, 25ns minimum pulse width, output current limit 40mA ➤ 12x bidirectional differential channels with switchable termination: • Input characteristics: Voltage range - 5V...+5V, up to 20 MHz input frequency, 25ns minimum pulse width • Output characteristics: Voltage range 1.5V...3.3V, up to 20MHz output frequency, 25ns minimum pulse width
8.	Electric Motor Control I/O Functionality	➤ Functionality on digital I/O channels: • 48x PWM/PFM In/Out • 2x Block-Commutated PWM Out • 2x Space Vector PWM In/Out • 2x Hall Encoder In & 2x Digital Incremental Encoder In/Out • 2x Sine Encoder In & 2x Resolver In • 2x SSI Master / BiSS & 2x EnDat Master • 16x Digital Pulse Capture • 48x Digital Pulse Out & 2x SENT In/Out • 2x SPI Master & 2x I2C Master1 • 16x Waveform Voltage Out1 & 8x Waveform Digital Out1
9.	Sensor supply	➤ 1x 5V, output current 500mA ➤ 1x 12V, output current 500mA
10.	User feedback	➤ 4x Programmable RGB LEDs1
11.	Theft protection	➤ Kensington® lock



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12.	Power supply & cooling	➤ 100...240VAC, max. 280W ➤ Active cooling, temperature controlled
13.	Operating temperature range	➤ 0 °C ... +50 °C (+32 °F ... +122 °F)
14.	Certifications	➤ Electromagnetic compatibility (EMC) • EN 61326-1 Table 2 • CISPR 11, EN 55011 Group 1, Class A ➤ Safety requirements: EN 61010-1
15.	Connectors	➤ 48x BNC analog I/O connectors, ➤ 2x Sub-D 50 digital I/O connectors, ➤ 4x Sub-D 9 bus I/O connectors ➤ 3x RJ 45 Ethernet connectors ➤ 2x 2 banana plug connectors for sensor supply ➤ 1x USB-A ➤ 1x SFP ➤ 1x QSFP
16.	Software	➤ Supported Software Package for IO configuration & Experiment



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Annexure – II

Declaration by bidder

(Please specify Class of Supplier and Local Content percentage)

In accordance and manner as specified in Order No. P45021/2/2017-PP (BE-II) dated : 04th June 2020 issued by DIPP, Ministry of Commerce and Industries, GoI.

To,
The Registrar,
Indian Institute of Technology (Indian School of Mines)
Dhanbad -826004
Respected Sir,

In accordance with the order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020, I hereby declare that

- I am aware about all provision mentioned in Bid No.as well as order No. P-45021/2/2017-PP (BE-II) dated 04th June, 2020 and abides by the same.
- I declare that for this tender, I am a **Class-I local supplier / Class-II local supplier / Non-local supplier** (Strike out whichever is not applicable) and classification is based on local content of goods/services/work offered by bidder in this tender.
- Local content (in percentage) in offered good/services/work is: _____%**
Whereas 'Local Content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.
- The local content for all inputs which constitute the said goods/services/works has been verified and bidder is responsible for the correctness of the claims made therein.
- Details of items, amount and location(s) at which the local value addition is made:

Sl. No.	ITEM (S)	AMOUNT	LOCATION(S)
1.			
2.			
3.			
4.			
5.			

Date:

Signature:

Name of Authorized Signatory:

Name of Bidder:

Seal of Bidder:



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Annexure-III

SELF-CERTIFIED DECLARATIONS FOR TAKING PART IN TENDER

a. Regarding blacklisting / debarring

b. Insolvency

1. I / We _____ (Tenderer) hereby declare that the firm / agency / Company, namely M/s _____ has not been declared as **insolvent**.

AND

2. I / We _____ (Tenderer) hereby declare that the firm / agency / Company, namely M/s _____ has not been **blacklisted or debarred** in the past by Union / State Government or Organization from taking part in Government tenders in India.

OR

2. I / We _____ (Tenderer) hereby declare that the Firm/Agency/Company, namely M/s _____ was **blacklisted or debarred** by Union/ State Government or any Organization from taking part in Government tenders for a period of _____ years w.e.f. _____ to _____. The period is expired and now the Firm/Agency/Company is entitled to take part in Government tenders.

In case the above information is found to be false I / We are fully aware that the tender/contract will be rejected / cancelled by Director, IIT(ISM) Dhanbad, and EMD shall be forfeited.

In addition to the above Director, IIT(ISM) Dhanbad will not be responsible to pay the bills for any completed/partially completed work.

Date:

Place:

Self Certification: _____

Name: _____

Address: _____

Stamp: _____

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"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached]"

Place:**Signature:** _____**Date:****Name:** _____**Stamp:** _____**OR****Model certificate for tenders for work involving possibility of sub-contracting**

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contracting from such countries I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub contract any work to a contract form such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Provide Compliance for the above in Vendor Specified Commercial Terms.]"

Place:**Signature:** _____**Date:****Name:** _____**Stamp:** _____



GSTIN : 20AAAAI0686D1ZA

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Phone: (0326)2235203

Email: projectpurchase@iitism.ac.inWebsite: www.iitism.ac.in**Annexure –V****1. PRICE SCHEDULE FOR GOODS BEING OFFERED WITHIN INDIA**

Name of the Bidder _____

NIT Reference No. _____

File Reference No. _____

Sl. No.	Full Description of items with (HSN Code/SAC Code)	Quantity	Unit Price (in INR)	Total Amount (in INR)
1.				
2.				
3.				
Ex-Works Price-				
Packing & forwarding				
Transportation				
FOR (IIT ISM) Dhanbad				
<u>GST/IGST (their rate(s) as the case may be, clearly specified)</u>				
Insurance up to Destination/handover (in case of fabrication)				
Installation & Commissioning charge				
Training charges, if any				
Additional Warranty Charges, if any				
Annual Maintenance Charge, if any				

*(On the basis of the technical specifications submitted)

Total Bid Price in words _____

Note:

(a) The Price schedule of optional items shall be indicated in a separate sheet in the same Performa.

(b) Cost spare parts may be indicated separately

Signature of Bidder

Name _____

Business Address _____