



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्ड, भारत, पिन-826004

(मानव संसाधन विकास 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 H.R.D., Govt. of India)

STORES & PURCHASE SECTION Phone:(0326) 2235678 || Email : purchase@iitism.ac.in || Website : www.iitism.ac.in

No. MME/INS/102/2018-19

Date: 17 July 2018

NOTICE INVITING TENDER

Subject: Supply & Installation of Human Vibration Analyser with Hand Arm Tri-Axial Accelerometer and Force Transducer

Indian Institute of Technology (Indian School of Mines), Dhanbad invites quotations for the following to be supplied and delivered in MME Department.

| S No | Full Description of items/ store | Qty | Delivery |
|------|---|--------|---------------------------|
| 1 | Supply & Installation of Supply & Human Vibration Analyser with Hand Arm Tri-Axial Accelerometer and Force Transducer (Detailed Specification is given in Annexure – I) | 01 No. | At the Earliest /Ex-Stock |

Tender Schedule

| Particulars | Date & Time |
|--|--------------------------------|
| Last date and time for submission of tenders | 07.08.2018 at 1:00 P.M. |
| Date and time of opening of tenders | 07.08.2018 at 4.00 P.M. |

1. You are requested to quote your lowest rates for the supply of above items in the attached format for Financial Bid (Annexure – II)
2. You may send your representative in the office of the undersigned at the scheduled date and time of opening of tender.
3. Tender should be submitted in sealed cover only superscribed with Enquiry No. and due date at the following address only:

The Deputy Registrar (P&S)

Indian Institute of Technology (Indian School of Mines),

Dhanbad – 826 004 Jharkhand



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Terms & Conditions

- 1) The rates should be quoted for each item separately.
- 2) Conditional offer will not be accepted.
- 3) IIT (ISM) does not issue any Form 'C' or 'D' towards sales tax concessional rate. Hence, full rate of sales tax/VAT, GST applicable should be quoted.
- 4) **Educational discount**, if any, should be clearly mentioned.
- 5) You are requested to submit your quotation strictly as per the specifications mentioned in the NIT.
- 6) Your tender must be valid for **minimum 90 days** from the date of opening of tender.
- 7) Please mention warranty/ guarantee in your offer clearly. Material/ equipment to be supplied must have minimum warranty/guarantee of **12 months**.
- 8) Each page in the bid document must be numbered properly and duly signed & sealed by the bidder on every page of the bid.
- 9) **The items/ materials shall be required to be delivered at MME Department/ Section through Purchase & Store Section, IIT (ISM) Dhanbad** at the risk and cost of the tenderer.
- 10) Unloading and installation shall be the complete responsibility of the supplier.
- 11) The stores are required to be delivered within 30 days. Late delivery may not be accepted.
- 12) The items offered should be of good quality confirming to BIS standards, wherever applicable.
- 13) **Advance payment is not admissible**. Payment shall normally be made within 30-45 days subject to receipt and acceptance & installation of the ordered materials/items PBG and other documents.
- 14) In the event date on which the tender is opened for acceptance is declared to be a holiday, the tenders shall be deemed to remain open for acceptance till the next working day.
- 15) Please send your sealed offer by Regd. Post/ Speed Post/ Courier along with Courier receipt. Tender/ quotation will be received during IIT (ISM) working hours only (i.e. Monday to Friday). *Late or delayed tenders shall be summarily rejected.*
- 16) Any other information that you may like to obtain, you are free to contact IIT (ISM) before submission of tender.
- 17) IIT (ISM) reserves the right to accept and/or to reject any/ all tenders without assigning any reason.

Deputy Registrar



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Annexure – I

Technical Specification for Human Vibration Analyser with Hand Arm Tri-Axial Accelerometer and Force Transducer

- 1 Hand Arm Vibration Accelerometer : Quantity : 1
 Number of axis: 3 (MEMS based)
 Sensitivity ($\pm 5\%$): 0.661 mV/ms^{-2} at 79.58 Hz
 Measurement range: 2000 ms^{-2} PEAK
 Frequency response: $0 \text{ Hz} \div 1500 \text{ Hz}$
 Resonant frequency: 16.5 kHz (MEMS transducer)TEDS Supported
 Electrical noise: $< 0.14 \text{ ms}^{-2}$ RMS, Wh weighting
 Temperature Range: from -10°C to $+50^\circ\text{C}$
 Temperature Coefficient $< \pm 0.02\%$ / $^\circ\text{C}$
 Humidity up to 90 % RH, non-condensed
 Maximum vibration: $100\,000 \text{ ms}^{-2}$ shock survival
 Integrated cable: 1.4 meters
 Hand arm accelerometer mounting adopter
 Electrical:
 Supply Current $< 5.0 \text{ mA}$
 Supply Voltage $3.3 \text{ V} \div 5.5 \text{ V}$
 Bias Voltage $1.5 \text{ V} \pm 0.05 \text{ V}$
 Output Impedance 51 Ohms
 Charge / Discharge Time Constant (start-up time) 30 sec. typ.
- 2 Hand-arm Triaxial Accelerometer with Force Detection
 Quantity : 1
 Number of axis: 3
 Sensitivity ($\pm 5\%$) 0.661 mV/ms^{-2} at 79.58 Hz
 Measurement range 2000 ms^{-2} PEAK
 Frequency response $0 \text{ Hz} \div 1500 \text{ Hz}$
 Resonant frequency 16.5 kHz (MEMS transducer)TEDS supported
 Electrical noise $< 0.14 \text{ ms}^{-2}$ RMS, Wh weighting
 Force range: 200 N
 Temperature Range: from -10°C to $+50^\circ\text{C}$
 Temperature Coefficient $< \pm 0.02\%$ / $^\circ\text{C}$
 Humidity up to 90 % RH, non-condensed
 Maximum vibration: $100\,000 \text{ ms}^{-2}$ shock survival
 Integrated cable: 1.4 meters
 Hand arm with force accelerometer mounting adopter
 Electrical:
 Supply Current $< 5.0 \text{ mA}$
 Supply Voltage $3.3 \text{ V} \div 5.5 \text{ V}$
 Bias Voltage $1.5 \text{ V} \pm 0.05 \text{ V}$
 Output Impedance 51 Ohms
 Charge / Discharge Time Constant (start-up time) 30 sec. typ.
- 3 Whole-body Triaxial seat transmissibility Accelerometer



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Quantity: 1

Number of axis 3

Sensitivity ($\pm 5\%$) 5.81 mV/ms^{-2} at 15.915 Hz

Measurement range 160 ms^{-2} PEAK

Frequency response $0 \text{ Hz} \div 500 \text{ Hz}$

Resonant frequency 5.5 kHz (MEMS transducer)TEDS supported

Electrical noise $< 0.066 \text{ ms}^{-2}$ RMS, BL Wb weighting

Maximum vibration $100\,000 \text{ ms}^{-2}$ shock survival for MEMS

Temperature from -10°C to $+50^\circ\text{C}$

Temperature Coefficient $< \pm 0.01\% / ^\circ\text{C}$

Humidity up to $90\% \text{ RH}$, non-condensed

Integrated cable: 1.4 meters

Electrical:

Supply Current $< 5.0 \text{ mA}$

Supply Voltage $3.3 \text{ V} \div 5.5 \text{ V}$

Bias Voltage $1.5 \text{ V} \pm 0.05 \text{ V}$

Output Impedance 51 Ohms

Charge / Discharge Time Constant (start-up time) 30 sec. typ.

4 Carrying case for sensors



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Annexure - II

Format for Financial Bid

NIT No.: MME/INS/102/2018-19

Date: 17 July 2018

Bidders Ref. No.:

Date:

GSTIN:

Subject: Supply & Installation of Human Vibration Analyser with Hand Arm Tri-Axial Accelerometer and Force Transducer

| Sl. No. | Full Description of Items (With HSN Code/SAC Code) | Qty. | Rate | Amount |
|--|--|------|-------------------------------|--------|
| | | | | |
| | | | | |
| | | | Packing & Forwarding (if any) | |
| | | | Total | |
| | | | GST (if any) | |
| | | | Freight (if any) | |
| | | | Installation (if any) | |
| Amount should be in figure as well as word | | | Grand Total | |

Note:

- 1) Price basis must be FOR IIT(ISM) Dhanbad only.
- 2) All the details must be provided as per prescribed format only.
- 3) Prices quoted by the bidders should include all local taxes, VAT, service tax, GST, HSN Code, SAC Code, livies, transportation cost and insurance costs etc. if any
- 4) All the rates must be quoted in Indian Rupees.