



**NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department: Mining Engineering

Tender Notice No: NITR/PW/MN/2021/228

Date: 25/01/2021

IMPORTANT DATES

To

Bidding
Through
e- Procurement module of
CPP Portal

<https://eprocure.gov.in/eprocure/app>

Event	Date	Time
Pre-bid meeting	NA	NA
Last date of submission of bid	15/02/2021	03:00 PM
Date of opening of techno-commercial bid	17/02/2021	03:00 PM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send, your offer with prices and complete terms within the time mentioned above.

For any clarification:

Yours sincerely,

Attention:

Dr. FALGUNI SARKAR
Assistant professor
Department of Mining engineering, NIT Rourkela
Mob: +91-8986604709, +91-6204641962
Email: sarkarf@nitrkl.ac.in

Dr. FALGUNI SARKAR
Assistant professor
Department of Mining
Engineering, NIT Rourkela

Encl:

- 1) Schedule of requirement, specifications, dates etc.**
- 2) Bid document containing detail terms and conditions.**

1. Schedule of requirements

SL.NO	Description of Goods/Service	Quantity
1.	Human Vibration Meter and Analyzer with following compatible attachments: a) Whole-Body Tri-axial Seat Pad Accelerometer, b) Hand Arm Vibration Accelerometer, c) Seat transmissibility Accelerometer	1 Unit

2. Specifications and allied Technical Details: As per the specification attached in the **Annexure-II**
3. Format of Quotation (tick appropriate box)
It is a two-part with separate techno-commercial and price bids.
4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>
5. Quotations should be valid for a period of **90 days** from the date of opening of techno-commercial bid.
6. Some important dates:

i.	Pre-bid Conference	Date:	NA	NA
ii.	Last date for submission of bid	Date:	15/02/2021	03:00 PM
iii.	Date of opening of techno- commercial bid	Date:	17/02/2021	03:00 PM

7. **Warranty:** One year standard warranty.
8. **GST:** GST should be charge according to applicable rates.
9. **Tender Cost:** Tender cost (Non- refundable) in the shape of Demand Draft for **INR 500/- (Rupees Five Hundred only)** in favor of "Director, NIT Rourkela" Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. Tender Cost should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela- 769008, Odisha; on or before 17/02/2021 at 03:00 PM.**
10. **Bid Security:** It is mandatory to submit the "**Bid Security declaration**" form as mentioned in **Annexure I**, failing which the bid will be summarily rejected.
11. **Performance Security: 3 % of the contract value** should be deposited to the Institute within 15 days from the date of issue of Purchase Order, in shape of Demand Draft (DD)/Bank Guarantee in favor of "Director, NIT Rourkela and payable at Rourkela" from any Scheduled Commercial Bank except Co-operative and Gramin bank. And Performance security should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the suppliers including warranty obligation.
12. Please go through the enclosed "bid document" carefully for other bidding instructions.
13. Please send your quotations through: <https://eprocure.gov.in/eprocure/app>
14. **Technical Bid Evaluation Criteria:**
 - I. If the supplier is Original Equipment Manufacturer (OEM) should have own service center in India. The bidders must enclose details of their infrastructure with reference to locations and technical manpower, availability of inventory spares etc. A valid GST registration certificate of OEM should be submitted along with bid.
 - II. Scanned copies of the technical brochure of the above equipment and attachments (**Annexure-II**) given in the quotation must be included in the technical bid.
 - III. Design and schematic diagram of the equipment should be provided for better understanding.
 - IV. Web references must be provided along with the technical bid.

- V. Point wise technical compliance along with any deviation of the mentioned specifications (**Annexure-II**) must be indicated along with technical documents.
- VI. Make and model no. should be mentioned in the technical bid.

Financial Bid Evaluation Criteria:

Final Price comparison for the award of contract to decide Lowest price (L1) will be made based on the prices quoted for item no. 1.01 in BOQ.

- 15.** For technical details, you may contact

Dr. FALGUNI SARKAR
Assistant professor
Department of Mining engineering, NIT Rourkela
Mob: +91-8986604709, +91-6204641962
Email: sarkarf@nitrkl.ac.in

NB: Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA

BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela– 769008, Odisha, from the intending bidders for supply of the goods/stores/equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In Case of any discrepancy between the rate in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the tender document.
- 1.5 The bids should be uploaded in <https://eprocure.gov.in/eprocure/app>. Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, s/he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bid received after deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., techno-commercial bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over- writing in those pages is acceptable.
- 1.11 If any bidder does not fulfil technical specification , his/her eligibility will be cancelled even if his/her price got L1 status.
- 1.12 Bidders registered with any of the following agencies/ bodies as per Public procurement policy for Micro & Small Enterprises (MSE) order 2012 are exempted categories from payment of EMD provided that the registration Certificate issued by any one of these below mentioned agencies must be valid as on close date of tender. Micro small or medium enterprises who have applied for registration or renewal of registration with any of these agencies/bodies but have not obtained the valid Certificate as on close date of tender are not eligible for exemption.
 - i) Khadi and Village Industries Commission (KVIC)
 - ii) National Small Industries Corporation (NSIC)
 - iii) Any other body specified by Ministry of MSME/GOI

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges including taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or ad-valorem rate must be specified. Packing, forwarding, freight, etc., when quotes separately are reimbursable at actuals. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad-valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is availing custom duty exemption in terms of Notification No. 51/96 – Customs dt. 23.07.1996, Notification No. - 47/2017- Integrated Tax (Rate) dt. 14.11.2017 and Notification No- 45/2017 – Integrated tax (Rate) dt. 14/11/2017 & Notification No. - 45/2017- Central tax (Rate) dt. 14.11.2017, Notification No. - 45/2017- Union Territory Tax (Rate) dt. 14/11/2017 [Vide DSIR, Ministry of Science and Technology, Government of India, Registration No.: TU/V/RG- CDE (227)/2016, dated: 13.11.2018]

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **90 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details as mentioned in schedule of requirements in the tender documents.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT, Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.
- 2.12 Purchase order / Work order shall be placed on the bidding firm(s). In case of deviation to this, if any, the bidding firm should produce any such sufficient documents/credentials i.e, Agreements, MOUs, Arrangements etc. with the third

party/ OEM to satisfy the buyer. A consent letter from the third party/ OEM to that effect must be enclosed along with the bidding documents.

- 2.13 Payment (*100 percent*) will be made by Account Payee Cheque/Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, where applicable, whichever is later/latest.
- 2.14 State Bank of India is the sole Banking partner for NIT Rourkela for operation of LC (Letter of Credit).
- 2.15 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, and Rourkela shall be final.
- 2.16 The bid document/resultant contract will be interpreted under Indian Laws.

BID SECURITY DECLARATION

Tender Ref. No.: _____ Dated _____

Tender ID : _____

To

**The Registrar,
National Institute of Technology, Rourkela
Sundargarh, Odisha-769008**

The undersigned, declare that I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration. I/We accept that I/We may be disqualified/suspended from bidding for any tender /contract in your Institute (NIT Rourkela) for a period of **Five Years** from the date of notification of present tender, if I am /We are in a breach of any obligation under the bid conditions as under, if I/We

- a) Withdraw/modify/amend, impair or derogate the tender/bids, during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of bid validity
 - (i) fail or refuse to execute the contract, if required, or
 - (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: (insert signature of person whose name and capacity are shown) in the capacity of (insert legal capacity of person signing the Bid Securing Declaration)

Name: (insert complete name of person signing the Bid Securing Declaration) Duly authorized to sign the bid for and on behalf of (insert complete name of Bidder)

Dated on _____ day of _____ (insert date of signing) Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

DETAILED TECHNICAL SPECIFICATION

Technical Specifications for purchasing “Human Vibration Meter and Analyzer” with following compatible attachments:

- a) Whole-Body Tri-axial Seat Pad Accelerometer,
- b) Hand Arm Vibration Accelerometer,
- c) Seat transmissibility Accelerometer

Sealed tender bids are invited from reputed/authorized vendors/companies for “Human Vibration Meter and Analyzer” with following tender specifications.

Sl. No.	Details Technical Specifications
1. Human Vibration Meter and Analyser	
1	Human Vibration Meter meeting ISO 8041:2005, ISO 2631-1,2&5, ISO 5349, EU Directive 2002/44/EC
2	Input No of channels: more than 3 channels
3	Filters: Wd, Wk, Wm, Wb, Wc, Wj, Wg, We, Wf, Wh and additionally HP
4	Results: RMS, VDV, MTVV or Max, Peak, Peak-Peak, Vector, A(8), Dose, ELV, EAV
5	Sampling Rate: 6KHz
6	Resolution: 0.1dB
7	Dynamic Range: Minimum 0.2dB
8	OLED Colour display to measurement instrument
9	Operating Temperature Range :-10 °C to 50 °C
10	Whole body vibration measurement
11	time-domain signal recording (meeting ISO 2631-5)
12	1/1 and 1/3 octave real-time analysis
13	Advanced data logger including spectral analysis
14	Micro SD flash card for mass data storage
15	Integration time programmable up to 24 h
16	Software for easy instrument setup and data download
17	Weight not more than 500gms with batteries
18	Measurement Range: Transducer dependent: 0.01 ms ⁻² RMS to 50 ms ⁻² Peak (with Wd filter); 0.1 ms ⁻² RMS to 500 ms ⁻² Peak (with Wh filter)
19	Frequency Range 0.1 Hz to 2 kHz (transducer dependent)
20	Force Range 0.2 N to more than 150 N (dedicated channels for force transducers)
21	Sampling Rate: 6 kHz
22	Interfaces USB 1.1 Client, Extended I/O - AC output (1 V Peak) or Digital Input/output (Trigger - Pulse)
23	Power Supply : Four AA batteries (alkaline) operation time > 12 h (6.0 V / 1.6 Ah) or Four AA rechargeable batteries operation time > 16 h (4.8 V / 2.6 Ah) USB interface 500 mA HUB

Technical Specifications for attachments mentioned above:

a. Whole-Body Tri axial Seat Pad Accelerometer	
1	Number of axis: 3 (MEMS based)
2	Sensitivity: (± 5 %), 50 mV/ms⁻² at 15.195 Hz
3	Measurement range: 0.01 ms ⁻² RMS to 50 ms ⁻² PEAK
4	Frequency response: 0 Hz to 100 Hz Resonant frequency: 5.5 kHz (MEMS transducer) TEDS Supported
5	Electrical noise: < 0.005 ms ⁻² RMS, HP1 filtering
6	Temperature Range: from -10°C to +50°C Temperature Coefficient < +/-0.01 %/°C Humidity up to 90 % RH, non-condensed
7	Maximum vibration: 100 000 ms ⁻² shock survival
8	Integrated cable: 1.4 meters

9	Seat Pad accelerometer tightening strap
10	Electrical: Supply Current < 5.0 mA Supply Voltage 5.2 V to 16 V Bias Voltage 2.5 V ± 0.05 V Output Impedance 51 Ohms Charge / Discharge Time Constant (start-up time) 30 sec. typical.

Sr. No.	Required Parameter
b. Hand Arm Vibration Accelerometer :	
1	Quantity : 1
2	Number of axis: 3 (MEMS based)
3	Sensitivity (± 5 %):0.661 mV/ms ⁻² at 79.58 Hz
4	Measurement range: 1500 ms ⁻² PEAK
5	Frequency Response: 0 Hz to1000 Hz
6	Resonant frequency: 16.5 kHz (MEMS transducer)TEDS Supported
7	Electrical noise: < 0,14 ms ⁻² RMS, Wh weighting
8	Temperature Range: from -10°C to +50°C
9	Temperature Coefficient <+/-0.02 %/°C
10	Humidity up to 90 % RH, non-condensed
11	Maximum vibration:100 000 ms ⁻² shock survival
12	Integrated cable: more than 1 meters
13	Hand arm accelerometer mounting adopter
14	Electrical:
15	Supply Current < 5.0 mA
16	Supply Voltage 3.3 V to 5.5 V
17	Bias Voltage 1.5 V ± 0.05 V
18	Output Impedance >50 Ohms
19	Charge / Discharge Time Constant (start-up time) 30 sec. typ.
c. SEAT transmissibility Accelerometer	
1	Quantity: 1
2	Number of axis 3
3	Sensitivity (± 5 %) 5.81 mV/ms ⁻² at 15.915 Hz
4	Measurement range 160 ms ⁻² PEAK.
5	Frequency response 0 Hz to 500 Hz
6	Resonant frequency 5.5 kHz (MEMS transducer)TEDS supported
7	Electrical noise < 0,066 ms ⁻² RMS, BL Wb weighting
8	Maximum vibration 100 000 ms ⁻² shock survival for MEMS
9	Temperature from -10°C to +50°C
10	Temperature Coefficient <+/-0.01 %/°C
11	Humidity up to 90 % RH, non-condensed
12	Integrated cable: 1.4 meters
13	Electrical:
14	Supply Current < 5.0 mA
15	Supply Voltage 3.3 V to 5.5 V
16	Bias Voltage 1.5 V ± 0.05 V
17	Output Impedance > 50 Ohms
18	Charge / Discharge Time Constant (start-up time) 30 sec. typ
d. Carrying Case	

Other Requirements	
Demonstration of instrument performance.	The supplier should demonstrate the working of the equipment by detecting all specified vibration parameters of interest at the time of installation of the equipment. The acceptance would be subject to meeting the required criterion.
Manuals	1 set of detailed operation, servicing and Programming manual should be provided in both soft form as well as Hard copy. Language should be English only.
Training	Supplier should provide a comprehensive and free training to NIT Rourkela engineers for at least 3 working days on operation and preventive maintenance of the equipment and attachments.
Warranty	01 Year Standard Warranty (Front line service to be done at customer place & if any cards/modules are to be replaced can be taken to service center & back to bench service charges to be borne by Bidder). The Original End Manufacturer (OEM) should have Calibration and other maintenance support facility located in India.

Guarantee / Warranty and after sales technical support
The tender must be quoted with one year on-site comprehensive Warranty/Guarantee commencing from the date of complete and satisfactory installation of the equipment against the defect of any manufacturing, workmanship and poor quality of the components. The bidder also must agree and issue a certificate stating that technical query will be responded within 7 working days and the support will be provided within 21 working days from the date of reporting of the technical failure for down time free operation of the instrument.
Operation and service manual in English (electronic and hard copy) should be provided with all the equipment and components.
In the technical details, specify clearly about the kind of service/maintenance required for the system. Also mention that whether the service has to be carried out by a company engineer or it can be carried by trained service personnel within India.
The complete training of all measurement options should be free for NIT Rourkela user staff/students' members, onsite.
Enclose pre-installation guide for the details on electrical power, space and other for all components and essential accessories.