



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. PE/PRJ/355/18-19

Date: 4 February 2019

NOTICE INVITING TENDER

Subject: NIT No. PE/PRJ/355/18-19 for Supply & Installation of Rotational & Oscillatory Rheometer

Sirs,

Indian Institute of Technology (Indian School of Mines), Dhanbad invites tenders/ quotations for Supply and Installation of **Rotational & Oscillatory Rheometer-01 No.** in our Petroleum Engineering Department. *Particulars of tender cost, earnest money deposit and date and time of submission and opening of tenders are as under:*

S No	Items	Particulars
1.	Earnest money deposit	Rs. 48,000.00 (Forty Thousand only)
2.	Date and time for submission of bids	08.03.2019 at 1:00 P.M.
3.	Date and time of opening of bids	08.03.2019 at 4.00 P.M.

Tender document containing following document is available on websites of (<https://eprocure.gov.in> & www.iitism.ac.in), which may kindly be referred.

1. Technical specifications as per Annexure-I
2. General terms & condition as per Annexure-II
3. Compliance Statement as per Annexure –III
4. Financial Bid as per Annexure- IV (A) or (B)

Encl: As above

Assistant Registrar



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Annexure-I

Sl. No.	Item	Quantity
1.	Rotational & Oscillatory Rheometer	01 No.

Technical Specification of Rotational & Oscillatory Rheometer

The Rheometer should be capable to allow full characterization of a variety of material under controlled stress and controlled strain conditions.

Detailed Specifications

➤	Operation Mode: stress control, shear rate control and direct strain controlled oscillation at demand strain amplitude. A pure Sinusoidal Waveform at all times must be ensured irrespective of the Strain imposed.
➤	Bearing: Air Bearing system to ensure lowest radial drag & highest axial stiffness.
➤	Motor Torque: Synchronous or Drag-cup Motor
➤	Torque Range in Oscillation Testing mode: 8.0 nNm to 200 mNm or better Torque Range in Viscometry Testing mode: 5.0 nNm to 200 mNm or better
➤	Torque resolution: 0.5 nNm or better
➤	Frequency range: 10^{-5} rads ⁻¹ to 600 rads ⁻¹ or better
➤	Angular Velocity range: 10^{-8} rads ⁻¹ to 300 rads ⁻¹ or better
➤	Normal force range: 0.01 to 50 N or better
➤	Normal force resolution: 0.5 mN or better
➤	Gap Control: Automatic gap control
➤	Thermal Unit: The rheometer should be supplied with a temperature control unit using Peltier Temperature control system. It should control temperature range from -5°C to +200°C continuously with resolution of 0.1°C or better
➤	The system should be able to accommodate plate-plate, cone & plate systems & other geometry of plates mentioned below.

Accessories

➤	The following geometries of the upper plate should be offered for plate-plate measurement system: Plate 20 mm Dia: 1 No. or Plate 25 mm Dia: 1 No. Plate 40 mm Dia: 1 No or Plate 50 mm Dia: 1 No.
➤	The following geometries of the upper Cones should be offered for cone-plate measurement system: Cone 1°- 4°/40mm: 1 no.
➤	Cup & Bob geometry: Suitable Cup cylinder DIN standard of Hard anodized aluminium material, Designed for optimized thermal



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	properties and mechanical alignment. Quick-connect engagement and release mechanism. Suitable Bob upper geometry cylinder DIN standard of stainless steel (316 Grade) material. Quick-connect engagement mechanism and auto-recognition and configuration.
➤	Peltier Temp Control for Cup and Bob with temperature range -5°C TO 180°C.
Rheology software: The rheology software should be able to perform following measurements.	
➤	Viscometry measurement: Viscometry as a function of time, temperature and shear rate. Yield stress measurements.
➤	Oscillation measurement: Oscillation measurement with respect to time, temperature, frequency and amplitude
➤	Transient Measurements: Creep/Creep recovery measurement Stress relaxation measurements Large Amplitude Oscillatory Measurement Time-Temperature superposition for generating master curve analysis
➤	Air Compressor: 100 PSI, 5CFM oil free air compressor
➤	Air Dryer: Multistage membrane type with microfilters
➤	Pressure Cell: Provision for using high pressure cell (150 bar)
➤	Desktop PC: Preloaded PC (minimum 1TB HDD, 8GB RAM, licensed version of latest (Min i7) and compatible Windows operating system) along with all requisite extension hardware to run and control all the functions of setup via PC.
➤	Necessary Tool Kit should be provided with the main instrument.
➤	Warranty: The quoted instrument should have a warranty of at least 3 years from the date of installation.
➤	Documentation: All Claims made by the vendor with regards to the above specifications should be supported by specification sheets / brochures / data available on company website. No claims with regards to laboratory data will be accepted.
➤	Optional: PRESSURE CELL FOR MEASUREMENT OF RHEOLOGICAL PROPERTIES AT HIGH PRESSURE PRESSURE RANGE : UP TO 150 BAR

Note: IIT(ISM), Dhanbad is registered with DSIR, so only 5% GST will be applicable for the supply.



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Annexure-II

GENERAL TERMS & CONDITIONS

NIT No. PE/PRJ/340/18-19

Sealed tenders under **Two-bid system** are invited from manufacturers/ their authorized dealers/ agents for supply and installation in IIT (ISM) Dhanbad of items specified in *Annexure-I*.

- Offer should be submitted under **TWO-BID** system in two separate sealed covers i.e. “**Techno-commercial bid**” and “**Price bid**”.
- In a tender, either the Indian agent on behalf of the principle/ OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.*
 - If an agent submit 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.*
- Techno-commercial Bid:** should contain the following documents/information:
 - Bid Security/Earnest Money Deposit (EMD):** Should be submitted in form of A/C payee demand draft drawn in favor of Registrar, IIT(ISM) and payable at SBI, IIT (ISM) campus branch or any other Bank/ Branch located in Dhanbad.
 - Tenders without payment of tender cost and EMD will not be considered, unless the tenderer is exempt from such payment under Central Govt. Rules/ Regulations and General Financial Rules (GFR) as amended from time to time and claims such exemption along with relevant and valid supporting documents.
 - All relevant technical specifications/details of offered items, drawings, printed technical leaflets, and commercial details which are necessary to ensure that offer is complete in all respects should be attached with the technical bid documents.
 - A ‘*Compliance Statement*’ along with a certificate and duly signed that the tenderer satisfies the technical requirements given in **Annexure-I**. The said statement should be in a tabular form with the columns: sl. no., (2) technical requirement as per NIT; (3) what is offered by the tenderer; and (4) status of compliance: Complied/Not complied).
 - IIT(ISM) does not bind itself to offer any explanation to those bidders whose Technical Bids have not been found acceptable by the Evaluation Committee of the Institute.
- Further the following documents have to be furnished by the tenderers:**
 - Self attested copies of credentials in support of capability to undertake the supply/work.
 - Technical literature/catalogue with the detail specification of the material
 - Satisfactory performance certificate from their customers for same/similar supply/service must be enclosed alongwith the technical bid.
 - Income tax PAN, Sales tax regn. Nos., GST, & Bank A/c no., name of bank & branch.
- Price Bid should be as per Annexure- IV (A) or (B).** The packing, forwarding, freight and transit insurance charges, if any must be included in the price and should not be claimed separately. Duties & taxes, if applicable, are to be shown separately clarifying whether those are extra or included in the price. Price bids of only technically qualified tenderers shall be opened in their presence on a pre-notified date and time. In case of foreign supply. The comparison between the indigenous and the foreign offers shall be made on FOR destination basis and CIF/CIP basis respectively. However, CIF/CIP prices quoted by any foreign bidder shall be loaded further as under :
Towards customs duty, IGST and other statutory levies, custom clearance, inland transportation, currency fluctuation etc. - 15% of the CIF/CIP value.
- Educational discount, if any, should be clearly mentioned.**
- IIT(ISM) is entitled for Custom Duty Exemption under Govt of India notifications and is registered with DSIR, Govt of India for this purpose. This may be taken into consideration while quoting minimum



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- possible rate. IIT(ISM) will provide only custom duty exemption certificate for availing concessional custom duty. IIT(ISM) will not pay any extra custom duty other than duty exemption certificate.
8. IIT (ISM) does not issue form 'C' or 'D' for concessional Sales tax/VAT. Hence, full rate of sales tax as applicable to educational institutions against the form of certificate should be indicated.
 9. **Warranty:** Minimum 03 years from the date of installation and commissioning at the site.
 10. **Validity:** Offer must be valid for a period of **240 days** from the date of opening of tender
 11. **Performance Security/Performance Bank Guarantee:** Performance Security has to be submitted from the successful bidder. Performance Security will be 10% of the ordered value. Performance Security may be furnished in the form of Bank Guarantee/Demand Draft from any Nationalized Bank and Performance security should remain valid for a period of two months beyond the date of completion of all contractual obligations of the successful bidder(s). No interest will be payable by IIT (ISM) Dhanbad on the Performance Security deposited. In case the contractor fails to provide satisfactory service, the Performance Security submitted by the bidder(s) is liable to be forfeited. An undertaking to this is to be submitted.
 12. **Delivery Period and Liquidated Damage:** The ordered materials/work complete in all respects are required to be delivered and installed within the period stipulated in the purchase order failing which liquidated damages of 1% per week or part thereof for the delayed period subject to maximum of 5% of the total value of the order shall be deducted from the invoice of the supplier.
 13. **Inspection:** Inspection shall be carried out at IIT (ISM), Dhanbad after arrival of the materials and decision of the Institute in this regard shall be final.
 14. **Rejection and Replacement:** Rejection, if any, shall be notified to the supplier within 30 days of receipt and inspection of the material/workmanship. Rejected materials/work is to be removed by the supplier at his own risk and cost from IIT (ISM). Campus within 14 days of intimation of rejection. Defective Supplies are required to be replaced within 15 days of the removal of the rejected materials/work.
 15. **Risk Purchase:** IIT (ISM) shall be at liberty to realize from the supplier the differential amount, if any, which it shall have to incur on purchase of the material/work at higher price(s) from elsewhere in the market, if the supplier, due to their fault, fails to supply the ordered quality and quantity of the material/work within the stipulated time.
 16. **Conditional offer will not be accepted.**
 17. **Payment:** will be made within 30-45 days after satisfactory supply, inspection, installation/commissioning & acceptance and on submission of pre-receipted tax invoice, delivery challan, warranty certificate and installation report in triplicate and Performance Bank Guarantee. The invoice should be duly certified by the Head of Dept to which supply is made or any other IIT (ISM) official authorized for this purpose.
 18. Your full address for correspondence and name address of the beneficiary's banker should be clearly indicated in the offer. **Institute does not make any advance payment.**
 19. **Country of origin and port of shipment should be stated** in your offer clearly.
 20. Name and address of Indian Agent, percentage of agency commission, if any and role of the Agent with respect to the subject supplies and a statement thereon that "Agency Commission is included in the FOR price of the offer" should be clearly indicated in your offer.
 21. Earliest/ expected delivery period should be clearly indicated.
 22. Packing should be suitable for 'Air freight'.
 23. Please note that no part shipment/transshipment/third party shipment is acceptable to us.
 24. **Last date** for receipt of tenders and date & time for opening of the same is given in page- 01. The tenders will be opened in the presence of representatives of tenderers present. ***In the event last date is a holiday/declared as a holiday, next working date will be the last date for submission/ opening of tender.***
 25. Tender should be submitted in a sealed cover/envelope and must be superscribed as under:
 - i) "Tender No. PE/PRJ/355/18-19 Date : 4 February 2019 (Supply & Installation of Rotational & Oscillatory Rheometer-01 No. (Due Date 08.03.2019 at 4.00 P.M.).



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- ii) All tender shall be received upto to the time and date as stated in the tender notice, after which no tender shall be accepted in any circumstances.
 - iii) All tender must be sent by Registered Post/Speed Post/Courier along with Courier receipt, during IIT (ISM) working days only (i.e. Monday to Friday). Please note that no hand delivery of tender will be received at any circumstances.
26. The Institute at its discretion may change the quantity/quality/parameters/upgrade the criteria/drop any item(s) or part thereof at any time before placing the order. In case of any dispute, the decision of IIT(ISM) shall be final and binding on the bidders/tenderers.
27. The Institute reserves the right to accept or reject any or all the bids in part or in full without assigning any reason and does not bind himself to accept the lowest bid.
28. All the bidders, those are interested to participate in this tender, must have to submit the technical specification of their bid in MS-Word Format in a CD with the technical bid. The CD must be marked with the NIT No., date and submission deadline.

ABOVE TERMS AND CONDITIONS OF THE NIT ARE ACCEPTED

1	Name and address of the tenderer	
2	Telecom nos. of the tenderer i.e. phone fax, & email id.	
3	Signature, name & designation of the person signing on behalf of the tenderer & his/her office seal	
4.	Name & designation of the contact person & his phone/mobile no.	



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Annexure-III

Compliance Statement

Sl. No	Technical requirement as per NIT	What is offered by the tenderer	Status of Compliance Complied/Not Complied
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Annexure – IV (A)

1. PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD

Name of the Bidder_____ (On bidders letter head)

NIT Reference No. **PE/PRJ/355/18-19**

Date: 4 February 2019

Bidder's Reference No. _____

Date:

Sl. No.	Description/Part No./Make Model	Quantity	Unit Price (in foreign currency)	Total Amount (in foreign currency)
1.				
2.				
3.				
Total Ex-Works Price-				
Packing & Forwarding and inland freight				
*FCA (at port)				
Terminal charges, loading on vassal				
**FOB (name of port)				
Air freight & insurance up to destination port				
*CIF				
Carrier charges & insurance up to final destination				
**CIP				
Concessional Custom Duty (Against DSIR Certificate)				
IGST rate (Against IIT (ISM) Certificate)				
Other Duties/taxes/clearance charge, if any				
Transportation charges up to IIT ISM Dhanbad				
Chargeable weight/Gross weight of consignment				
Indian agency Commission (%)				
Installation & Commissioning charge				
Training charges, if any				
Additional Warranty Charges, if any				
Annual Maintenance Charge, if any				
Educational discounts, if any				
Total Ex-Works Price-				

* & ** Mandatory requirement

##Total Bid Price_____ in words_____

Note :

Total Bid price in foreign currency_____ in words

- Indian agent name & address_____
- Installation, commissioning & training charges, if any_____
- Please note that Indian agents' commission shall be paid in Indian Rupees only.
- Banker's details such as- Name of account holder, Account Number, Name of Bank, Branch code, RTGS code, NEFT code, SWIFT code etc.
- Price schedule of optional items shall be indicated in a separate sheet in the same performa.
- Quoting Price for FOB/FCA and for CIF/CIP basis, otherwise bid will be rejected.
- Wherever the price quoted on FOB/FCA and CIF/CIP basis are the same, the contract would be made on CIF/CIP basis only.
- Country of Origin, Dimension and Gross Weight must be provided

Signature of Bidder

Name _____

Business Address with contact details_____



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Annexure – IV (B)

2. PRICE SCHEDULE FOR GOODS BEING OFFERED WITHIN INDIA

Name of the Bidder_____ (On bidders letter head)

NIT Reference No. **PE/PRJ/355/18-19**

Date: **4 February 2019**

Bidder's Reference No. _____

Date:

Sl. No.	Description/Part No./Make Model	Quantity	Unit Price (in foreign currency)	Total Amount (in foreign currency)
1.				
2.				
3.				
Ex-Works Price-				
Packing & Forwarding				
Transportation				
FOR (IIT ISM) Dhanbad				
GST/IGST (their rate(s) as the case may be, clearly specified)				
Please note that IIT ISM is eligible for Concessional GST as per Notification No. 45/2017 – Central Tax (Rate) for CGST, 45/2017 – State Tax (Rate) for SGST and 47/2017 – Central Tax (Rate) for IGST,				
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 with contact details_____