

Indian Institute of Technology (Indian School of Mines)  
Dhanbad -826004 (Jharkhand)

No. CE-500439-2016-17

Date: 9 February 2017

To  
M/s

**Sub: NIT No. CE-500439-2016-17 for Supply & Installation of Plate Load Test Setup Digital, with Data Acquisition System.**

**(Due date: 07.03.2017)**

Sir(s),

Indian Institute of Technology (Indian School of Mines), Dhanbad invites tenders/ quotations for Supply & Installation of following item

S No	Full Description of items/ store	Qty
1	Supply & Installation of Plate Load Test Setup Digital, with Data Acquisition System # Total landed cost - 1yr.warranty + 4yr. Extended warranty. (Details specifications are given in Annexure-I. General requirements and qualification criteria given in Annexure-II)	01 No

*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.	Tender cost	Rs. 500.00 (Rupees five hundred only)
2.	Earnest money deposit	Rs.20,000.00 (Rupees twenty thousand only)
	Last date for seeking clarification(s), if any	<b>28.02.2017 at 3:00 P.M.</b>
3.	Date and time for submission of tenders	<b>07.03.2017 at 3:00 P.M.</b>
4.	Date and time of opening of tenders	<b>07.03.2017 at 4.00 P.M.</b>

Tender document containing following document is available in our website [www.ismdhanbad.ac.in/tender](http://www.ismdhanbad.ac.in/tender) page), which may kindly be referred.

1. Technical specifications as per Annexure-I
2. General terms & condition as per Annexure-II
3. Acceptance of terms & conditions as per Annexure-III
4. Particular of Bank Guarantee as per Annexure -IV
5. Compliance Statement as per Annexure -V

*Those firms who do not want to quote may please intimate us along with reasons for same as it will help us to update our suppliers list.*

Encl : As above

Asst Registrar (P&S)  
P: 0326-2235612  
F: 0326-2296633  
E: [drps@ismdhanbad.ac.in](mailto:drps@ismdhanbad.ac.in)

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Phone:(0326) 2296-559 to562 (4 Lines); \* Fax : (0326) 2296563 \* Website : [www.IIT \(ISM\)dhanbad.ac.in](http://www.IIT (ISM)dhanbad.ac.in)

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**Technical Specifications**

**1. Plate Load Test Setup Digital, with Data Acquisition System (Qty – 01)**

The apparatus should be as per Indian Standards and supplied with all necessary apparatus/parts conforming to Indian Standards.

**Ref. Standard IS:1888**

**The Equipment Consists of:**

Plate Bearing Test Apparatus With 4 No's LVDT (0-25mm),

Load cell (0-500 kN) 1no With digital indicator battery operated. High

Pressure Flexible Metallic Pipe 5 m long.: 1 No.

Ball and Socket Arrangement consisting of two steel plates, with one steel ball in-between the plates.: 1 No.

Extension Rod long, 12 mm dia x 25 cm for taking LVDT readings.: 16 Nos.

Data Acquisition System: 1 Nos

Magnetic base with female thread on top, for holding extension rod.: 4 Nos.

Top End Plate 50 mm dia with male thread, for fitting on to the Extension Rods and positioning the Dial Gauge Plunger.: 4 Nos.

Column 15 cm dia x 25 cm long, with flanges, complete with four bolts and nuts.: 2 Nos.

Column 15 cm dia x 50 cm long, with flanges, complete with four bolts and nuts.: 1 No.

Datum Bar light weight, portable, total span 5m height approx. 30cm, mounted on two removable legs.(It is made in two parts.

Provision exists for Datum Bar of 2.5m span to be used. A spare leg is provided for the purpose. Complete with two quick release clamps for positioning and holding the dial gauge brackets).: 2 Nos.

Anchor Spikes: 10 Nos.

Quick Release Clamp for positioning dial gauge bracket.

**Plates:**

- Grooved M.S. Plate, 30cm x 30cm square x 25mm thick
- Grooved M.S. Plate, 45cm x 45cm dia square x 25mm thick
- Grooved M.S. Plate, 60cm x 60cm dia square x 25mm thick
- Grooved M.S. Plate, 75cm x 75cm dia square x 25mm thick
- Plane M.S. Plate, 30cm x 30cm dia square x 25mm thick
- Plane M.S. Plate, 45cm x 45cm dia square x 25mm thick
- Plane M.S. Plate, 60cm x 60cm dia square x 25mm thick
- Plane M.S. Plate 75cm x 75cm dia square x 25mm thick

**Specification of the Data Acquisition System:**

**Components:-**

**Analog Channels :**

- 6 channels (Common terminal wiring)
- 4 channels (two wire differential terminal)
- 2 channels (3 wire & 4 wire sensors)
- Universal type of channels

**Thermocouple** (Types: B, C, D, E, G, J, K, N, R, S, T Calibration standard: ITS-90 ) ,

RTDs , Thermistors , 4 – 20 mA Current Loop , Monolithic Temperature Sensor , Strain Gauge and Bridge Sensor , Voltage (Upto +/-30Vdc) , Current (Upto +/- 30 mA ) , Load Cell , LVDT

**Digital Channels :**

Digital Input/Outputs : Minimum 4 nos channel Relay Output : 1 latching relay, contacts (max: 30Vdc , 1A ) Low Speed Counters : Minimum 4 counters shared with digital inputs ;

**Dedicated Counter Inputs:** Minimum 4 high speed or 2 phase encoder (quadrature) inputs ;

**Data Storage :** Internal Storage : Minimum Capacity: approx. 10,000,000 data points ;

**SAMPLING RATE :** 25 Hz

**Resolution :** 18 bits

**Linearity:** Minimum 0.01%

**Real Time Clock :** Normal resolution: 200 $\mu$ s

**operating Temperature range:** -45°C to 70°C

**Communication Interfaces:**

Ethernet Port Interface : 10 Mbps ;

Protocol : TCP/IP , Modbus ( Slave )

**Serial Sensor Port**

Interface: RS232,

**SDI – 12 channel:** Minimum 1 No SDI – 12 Input , Can support upto 10 nos SDI-12 sensor ;

**USB memory for easy data and program transfer ;**

**Capacity:** approx. 90,000 data points per megabyte ;

Sensor Excitation Supply should available in the Data-logger;

**Display :** LCD

**Power Supply :**

External voltage range: 10 to 30Vdc

**Software:-**

Runs directly from Web Browser ;

Access current data and status from any web browser.

**FTP Server :** Access logged data from any FTP client or web browser ;

**FTP Client :** Automatically upload logged data direct to an FTP server ;

Real-time and historical data for analysis , charts , mimics and tables , Custom pages can be defined, Download data in CSV format

An extensive range of Arithmetic, Trigonometric, Relational, Logical and Statistical functions should available.

***Specification of the Load Truss:***

Load Truss capacity 500kN (50,000 kgf) with

1. Trusses --2 parts
2. Joists --2 parts
3. Anchor spikes 150 Nos
4. Semi-cylindrical anchors --12Nos
5. Bolts with nuts for anchor straps---24 Nos
6. Anchor straps—12 Nos
7. Guy wires with six turn buckles—6 Nos
8. Top Flange splice plate --1 No
9. Small bolts with nuts for item -- 8Nos

10. Jointing bolts with nuts -8Nos
11. Bolts with nuts for bottom splice plate ---6Nos
12. Sledge hammer -1No
13. Spanners -2Nos

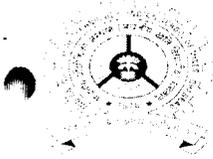
**Note:** # Total landed cost of the equipment should include 01 year warranty plus 04 year extended warranty.

## *Annexure II*

### *General Requirements and Qualification Criteria*

- Manufacturer should have comprehensive production facilities, after sales service facility & infrastructure, Accredited Calibration and Quality control Test Laboratory. Manufacturing Capacity & capabilities of the supplier and workmanship of the instrument shall be assessed by concerned official before finalizing the order.
- The company should have NABL accredited service wing.
- Manufacturing of the machine should be as per required testing standards/Tender specification within the specified tolerance limits.
- Manufacturer should have mentioned their own technical specifications of the equipment. Copy and paste the technical specifications from the indenter side will not be accepted.
- Qualified Service Engineer and customer support Staff should be available in the local office in the nearest metropolitan city. They should impart necessary 3 days training to our personal for operation the Equipment supplied.
- Authority may visit bidder's works/Users place to evaluate the quality Control, after sales backup facility, expert availability etc.
- Supplier should have capacity and experience of carrying out Annual Maintenance contract with the users of their M/C and proof of such documentation will be preferred.
- Vendor must have supplied in earlier instances three working models either at IISc or IIT. The purchase order of the same must be produced.
- Vender must supply original catalogue with Photo and Model number of equipment along with signature. The details also should be available in the website of the manufacturer.
- Reference standards of the equipments should be mentioned/highlighted in original catalogue and in technical bid.
- Supplier/manufacturer blacklisted by any Govt. Organization will not be considered. A declaration letter mentioning the same must be submitted.

Necessary Documents should be produced to support the above clauses.



**GENERAL TERMS & CONDITIONS**  
**NIT No. CE-500439-2016-17**

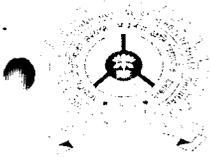
Sealed tenders under **two-bid system** are invited from manufacturers/ their authorized dealers/agents for supply and installation in IIT (ISM) Dhanbad of items specified in *Annexure-I*.

1. Offer should be submitted under **TWO BID** system in two separate sealed covers i.e. "**Techno-commercial bid**" and "**Price bid**".
2.
  - a) *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.*
  - b) *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.*
3. **Techno-commercial Bid**: should contain the following documents/information:
  - a. **Tender Cost**: Cost of the tender document is to be paid by way of an A/C payee demand draft and drawn in favor of Registrar, IIT (ISM) Dhanbad and payable at any other Bank/Branch located in Dhanbad. Tender cost is **non-refundable and non-transferable**. Alternatively, intending tenderers may download the complete set of tender document from IIT (ISM) website ([www.ismdhanbad.ac.in](http://www.ismdhanbad.ac.in)) and submit the same duly signed on all pages by the tenderers along with demand draft for tender cost
  - b. **Earnest Money Deposit (EMD)**: Should be submitted in form of A/C payee demand draft drawn in favor of Registrar, IIT (ISM), Dhanbad and payable at any other Bank/ Branch located in Dhanbad. It can also be submitted in the form of bank guarantee issued by a Nationalized Bank in India in the format given in Annexure-IV.
  - c. Tenders without payment of tender cost and EMD may not be considered unless the tenderer is exempt from such payment under Govt. Rules/Regulations as amended from time to time and claims such exemption along with relevant and valid supporting documents.
  - d. 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.
  - e. *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).*
  - f. 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.
4. 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 short-listed tenderers shall be opened in their presence on a pre-notified date and time.**
5. **Educational discount, if any, should be clearly mentioned.**
6. The Institute is generally at present paying concessional custom duty @9.36% for all items as per Govt of India notification. IIT (ISM) is also entitled for Excise 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 possible rate. *Exemption Certificates* can be issued in favour of manufacturers only. It will not be issued to any Indian Agent/dealer or distributor at any circumstances. IIT (ISM) has not agreed any high sea sales Purchase. 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.
7. 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 (enclosed as Annexure V) should be indicated.
8. **Warranty**: Minimum 01 year + 04 years extended warranty.
9. **Validity**: Offer must be valid for a period of **180 days** from the date of opening of tender.

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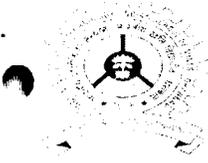
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10. Price should be quoted on FOR, Dhanbad basis in case of indigenous supply and Ex-works/ FOB, Port of loading/CIF, Kolkata basis in case of foreign supply
11. Your full address for correspondence and name address of the beneficiary's banker should be clearly indicated in the offer.
12. Country of origin and port of shipment should be stated in your offer clearly.
13. 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 FOB/CIF price of the offer" should be clearly indicated in your offer.
14. One set of technical literature/catalogue with the detail specification of the material under purchase should be furnished with the offer.
15. Earliest/expected delivery period should be clearly indicated.
16. Packing should be suitable for 'Air freight'.
17. Please note that no part shipment third party shipment is acceptable to us.
18. The dimension and gross and net weight in kilogram of the consignment should be indicated in the offer.
19. The offer should reach at the earliest in a sealed envelope superscribed 'Enquiry Reference Number' address to **Assistant. Registrar,**  
**Indian School of Mines,**  
**Dhanbad-826004, Jharkhand, India.**
20. Performance Bank Guarantee (PBG): A bank guarantee issued by a Nationalized Bank in India towards PBG for an amount equal to 10% of basic value of purchase order and valid from date of installation/commissioning to end of two months after the completion of warranty period has to be submitted by the successful bidder in favor of Registrar, IIT (ISM) Dhanbad
21. **Further the following documents have to be furnished by the tenderers:**
  - a) Self attested copies of credentials in support of capability to undertake the supply/work.
  - b) Detailed technical specifications of equipments.
  - c) Satisfactory performance certificate from their customers for same/similar supply/service must be enclosed alongwith the technical bid.
  - d) Income tax PAN, Sales tax regn. Nos. (VAT/CST/TIN), & Bank A/c no., name of bank & branch.
22. **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 for the delayed period subject to maximum of 5% of the total basic value of the order shall be deducted from the invoice of the supplier.
23. **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.
24. **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.
25. **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.
26. **Conditional offer will not be accepted.**
27. **Payment:** will be made within 30 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.
28. **Institute does not make any advance payment. However, as a special case 90% Letter of Credit Payment terms is accepted only in case of foreign supplier and balance 10% after satisfactory, installation report received from the user department.**

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29. **Last date** for receipt of tenders and date & time for opening of the same is given in annexure-III. 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.
30. (i) Tender should be submitted in a sealed cover/envelope and must be superscribed as:  
"Tender No. \_\_\_\_\_ (NIT no. should be mentioned for \_\_\_\_\_ (tendered item should be mentioned) due on \_\_\_\_\_ (tender opening date should be mentioned) at \_\_\_\_\_ (tender opening time should be mentioned).
- (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 send 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.
31. IIT (ISM) 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. 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.
32. In case of any dispute, the decision of IIT (ISM) shall be final and binding on the bidders/tenderers.

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भारतीय प्रौद्योगिकी संस्थान (भारतीय खनन विद्यापीठ) धनबाद

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**Annexure-III**

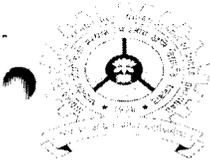
**ABOVE TERMS AND CONDITIONS OF THE NIT ARE ACCEPTED**

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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**FORMAT OF BANK GUARANTEE TOWARDS EMD**

Whereas \_\_\_\_\_ (hereinafter called "the Bidder") has submitted its bid dated \_\_\_\_\_ (date of submission of bid) for the supply of ..... (name and/or description of the goods) (hereinafter called "the Bid") against Tender Document No. \_\_\_\_\_ of the Indian School of Mines, Dhanbad.

KNOW ALL PEOPLE by these presents that WE \_\_\_\_\_ (name of bank) of \_\_\_\_\_ (name of country), having our registered office at \_\_\_\_\_ (address of bank) (hereinafter called "the Bank"), are bound unto \_\_\_\_\_ (name of Purchaser) (hereinafter called "the Purchaser") in the sum of \_\_\_\_\_ for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 2009.

THE CONDITIONS of this obligation are:

- 1) If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 2) If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
  - (a) fails or refuses to execute the Contract Form if required; or
  - (b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders;

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to six months from the date of opening of tender or the period of the bid validity whichever is later and any demand in respect thereof should reach the Bank not later than the above date.

Signature of the Bank



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**Annexure-V**

**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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