GSTIN : 20AAAAI0686D1ZA

भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्ड, भारत, पिन-826004

(मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व 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@ismdhanbad.ac.in || Website : www.iitism.ac.in

No. MME-500332-2017-18 **Date: 22 November 2017**

NOTICE INVITING TENDER

Subject: Supply & Installation of Hydraulic Drive Test Set up

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 Hydraulic Drive Test Set up** (Detailed Specification is given in Annexure – I)	01 Set.	At the Earliest /Ex-Stock

Tender Schedule

Particulars	Date & Time
Tender Fees	**Rs. 500.00 (Five Hundred Only)**
Bid Security or Earnest Money Deposit	**Rs. 16,000.00 (Sixteen Thousand Only)**
Last date and time for submission of tenders	**19.12.2017 at 1:00 P.M.**
Date and time of opening of tenders	**19.12.2017 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

GSTIN : 20AAAAI0686D1ZA
भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
धनबाद, झारखण्ड, भारत, पिन-826004
(मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व 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@ismdhanbad.ac.in || Website : www.iitism.ac.in

No. MME-500332-2017-18 **Date: 22 November 2017**

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) ***Tender Fees (non refundable) & EMD is to be paid by way of separate Demand Draft drawn in favor of Registrar, IIT (ISM) payable at Dhanbad. Non-submission will lead to rejection of your bid.***
7) Your tender must be valid for **minimum 90 days** from the date of opening of tender.
8) Please mention warranty/ guarantee in your offer clearly. Material/ equipment to be supplied must have minimum warranty/guarantee of **12 months.**
9) Each page in the bid document must be numbered properly and duly signed & sealed by the bidder on every page of the bid.
10) **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.
11) Unloading and installation shall be the complete responsibility of the supplier.
12) The stores are required to be delivered within 30 days. Late delivery may not be accepted.
13) The items offered should be of good quality confirming to BIS standards, wherever applicable.
14) Successful bidders will have to submit Performance Security (PBG) in the form of Bank Guarantee as per the Purchase Order before releasing payment.
15) ***Advance payment is not admissible***. Payment shall normally be made within 4-6 weeks subject to receipt and acceptance & installation of the ordered materials/items PBG and other documents.
16) 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.
17) 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.*
18) Any other information that you may like to obtain, you are free to contact IIT (ISM) before submission of tender.
19) IIT (ISM) reserves the right to accept and/or to reject any/ all tenders without assigning any reason.

Deputy Registrar

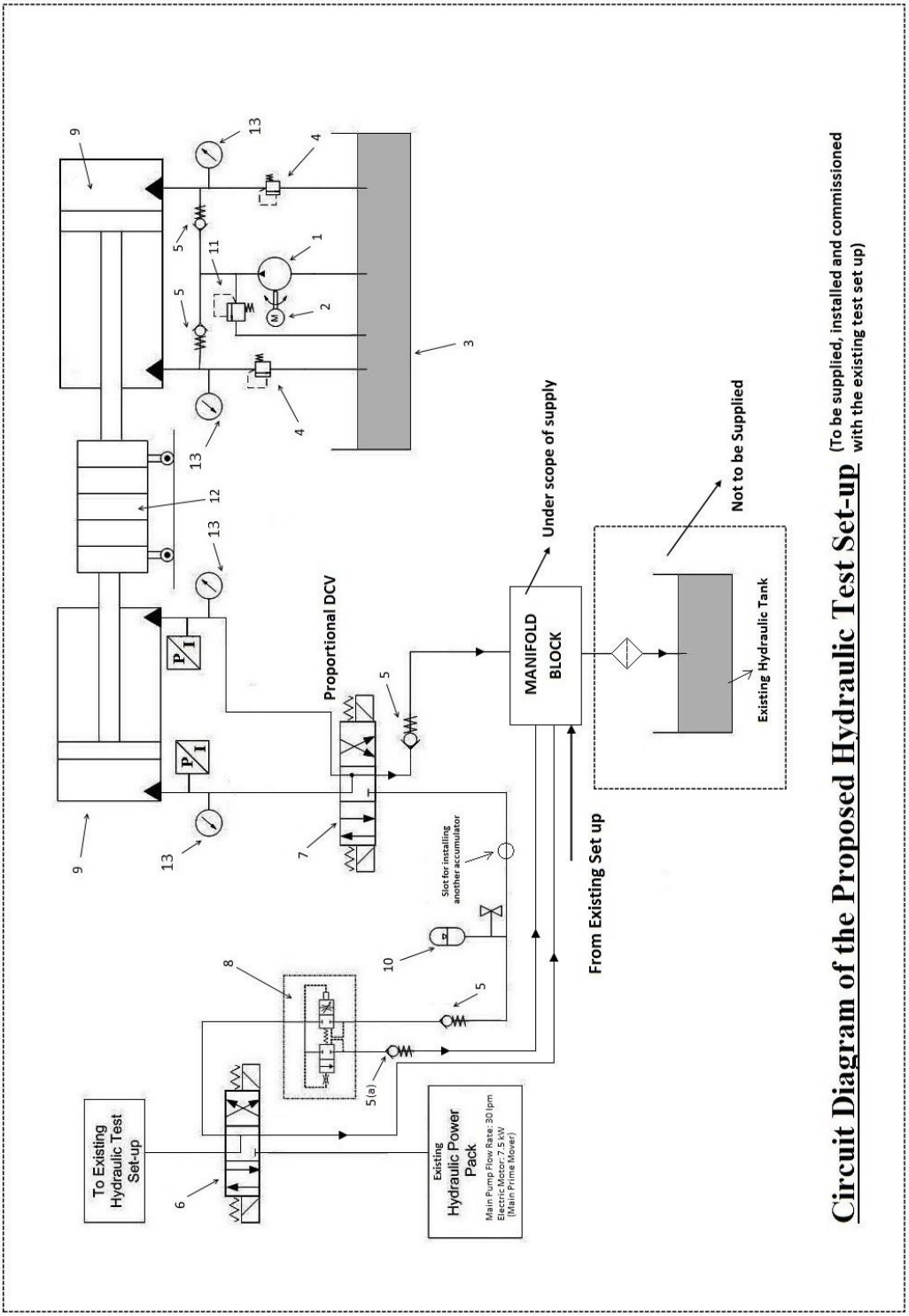
GSTIN : 20AAAAI0686D1ZA
भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
धनबाद, झारखण्ड, भारत, पिन-826004
(मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व का एक संस्थान)
INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES), DHANBAD
DHANBAD, JHARKHAND, INDIA, PIN-826004
(An Institute of National Importance under Ministry of H.R.D., Govt. of India)
STORES & PURCHASE SECTION Phone:(0326) 2235678 || Email : purchase@ismdhanbad.ac.in || Website : www.iitism.ac.in

No. MME-500332-2017-18 **Date: 22 November 2017**

Annexure – I

Technical Specifications

Annexure I



GSTIN : 20AAAAI0686D1ZA
भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
धनबाद, झारखण्ड, भारत, पिन-826004
(मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व 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@ismdhanbad.ac.in || Website : www.iitism.ac.in

No. MME-500332-2017-18 **Date: 22 November 2017**

Bill of Materials

Sl. No.	Components	Qty	Specifications
1.	Gear Pump @1500 rpm	1	8 cc
2.	Induction Motor compatible with pump along with assembly	1	**1 hp** 3 – Φ Squirrel Cage Induction Motor
3.	Hydraulic Tank	1	40 ltrs
4.	Pressure Relief Valve	2	110 bar
5.	Non Return Valve	4	For Max Flow of 15 lpm
5 (a).	Non Return Valve	1	For Max Flow of 25 lpm
6.	Sub-plate mounted 4/3-way Solenoid operated Direction Control Valve (coil voltage = 24 V DC) (As per the drawing attached, Annexure I (Revised))	1	**For Max flow of 30 lpm** • Working Pressure: 300 bar
7.	Sub-plate mounted 4/3-way Proportional Direction Control Valve (coil voltage = 24 V DC) (As per the drawing attached, Annexure I (Revised))	1	**For max flow of 12 to 15 lpm**. • Max. Operating Pressure: 35 MPa • Max. Tank Line Back Pressure: 21 MPa • Rated Flow (@ΔP = 1 MPa): 15-20 lpm • Hysteresis 0.1% or less • Repeatability 0.1% or less • Ambient Temperature: -15 - +60 °C • Spool Stroke to Stops: ±2.5 mm • Coil Resistance [20 °C]: 3 Ω • Current Consumption: 2 A (Implulse Load 3 A) • Electric Connection: 6 + PE Connector
8.	Priority Flow Control Valve	1	Flow Capacity - 30 lpm (inlet) Priority Flow Setting = 10 lpm
9.	Hydraulic Cylinder	2	Bore Dia– 90 mm/ 100 mm Rod Dia - 45 mm Stroke – 450 mm/ 500 mm
10.	Bladder type Hydraulic Accumulator with safety valve and gas charging kit.	1	15 ltr
11.	Pressure Relief Valve	1	10 bar (for maintaining 2 bar of pressure)
12.	Load assembly Trolley	1	The width of Structure will be around 2 Mtrs. (The load assembly trolley will be having slots as per the drawing, Annexure I (Revised) for putting dead weights and will move on tracks installed beneath the trolley for its motion)
13.	Pressure Gauges	5	Max. Pressure = 150 bar
14.	Hydraulic hoses and accessories like connectors, Hydraulic Filter, Filler Breather, Level Gauge with thermometer, Suction Strainer, Drain Ball Valve and Anti-Vibration Pad etc.	-	
15.	Test Bench along with fixtures and provision for installing force sensor	1	
16.	Electric Control Panel along with SMPS	1	For control of item nos. 2, 6, 7, 8 and display of output signals. Also, the panel must be

No. MME-500332-2017-18 **Date: 22 November 2017**

			equipped for displaying the voltage and current output signals of item no. 2 and output signal of the flow sensor.
17.	Pressure Transducers	8	Model: S-10 Range: 0-160 bar (04 Nos.) 0-100 bar (04 Nos.) Voltage: 0-10 V, Current: 4-20 mA Size: ¼" BSP (M)
18.	Displacement Transducer	1	Range 500 mm Type: K-WA-L-500W-32K-K1-F1-2-2; Displacement Transducer Plunger Version , Measuring Range: 0-500 mm
19.	Process Indicator (Analog Output Converter)	2	Input: 4- 20mA Output: 0-10 VDC Operating Voltage: 24 VDC / 230 VAC DIN RAIL Mount
20.	All-in-one Energy Meter (For measuring electrical parameters like AC current, Voltage, frequency, Power, Energy (Active/Reactive/Apparent), Harmonic Distortion)	1	Digital Display with Analog Output All-in-One measuring energy, power rating, voltage and current (Power Rating of Main Prime Mover – 7.5 kW). Digital Multifunction Instrument with onsite pluggable output options. • For measuring electrical parameters like AC current, Voltage, frequency, Power, Energy (Active/Reactive/Apparent), Harmonic Distortion. The instrument has optional output as one pulse output or two pulse output for energy measurement. **Input Voltage:** Nominal input voltage (AC RMS) : • Phase –Neutral 63.5 / 133 / 239.6 / 254VL-N • Line-Line 110 / 230 / 415 / 440 VL-L System PT primary values: • 100VLL to 692kVLL programmable on site. Max continuous input voltage: • 120% of rated value **Input Current:** • Nominal input current: 5A AC RMS. • System CT secondary values: 1A & 5A programmable on site. • System CT primary values: From 1A up to 9999A (for 1 or 5 Amp)

No. MME-500332-2017-18 **Date: 22 November 2017**

			• Max continuous input current: 120% of rated value
21.	Flow Sensor	1	**For Max flow of 20 lpm** Working Pressure: 150 bar Voltage: 0-10 Vdc, Current: 4-20 Ma (To be installed in the hydraulic line of Item no. 7 and Item No. 9, In between proportional DCV and Master cylinder)

- **Detailed specifications of all the items are to be submitted thoroughly supported by detailed technical literatures specifically for the item nos. 1, 2, 4, 6, 7, 8, 9, 10, 11, 18, 19 & 20 to be supplied along with quotations.**
- Power available at site: 220 V AC supply.
- All valves will be operating at 24 V DC which will be the operating coil voltage for the valves.
- **All necessary fittings and accessories to be provided by the supplier for the complete installation and commissioning at the site for the new installation and for connecting the new set-up with the existing hydraulic set-up.**

GSTIN : 20AAAAI0686D1ZA
भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद
धनबाद, झारखण्ड, भारत, पिन-826004
(मानव संसाधन विकास मंत्रालय, भारत सरकार के अधीन राष्ट्रीय महत्त्व 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@ismdhanbad.ac.in || Website : www.iitism.ac.in

No. MME-500332-2017-18 **Date: 22 November 2017**

Annexure - II

Format for Financial Bid

NIT No.: MME-500332-2017-18 Date: 22 November 2017

Bidders Ref. No.: Date:

GSTIN:

Subject: Supply & Installation of Hydraulic Drive Test Set up

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) All the details must be provided as per prescribed format only.
2) 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
3) All the rates must be quoted in Indian Rupees.