

### 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@iitism.ac.in || Website : www.iitism.ac.in

No. EE/INS/168/18-19

Date: 23 August 2018

#### NOTICE INVITING TENDER

Subject: Supply & Installation of Three phase semi and fully controlled bridge rectifier with different loads.

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

S No	Full Description of items/ store	Qty	Delivery
1	Supply & Installation of Three phase semi and fully controlled	03 Nos.	At the Earliest
	bridge rectifier with different loads.		

#### **Tender Schedule**

Particulars	Date & Time		
Last date and time for submission of tenders	25.09.2018 at 1:00 P.M.		
Date and time of opening of tenders	25.09.2018 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) Since IIT(ISM) Dhanbad is an Indian Institute of Technology and subject item will be used for research, hence benefit of reduced rate of GST should be considered if applicable.
- 5) *Educational discount*, if any, should be clearly mentioned.
- 6) You are requested to submit your quotation strictly as per the specifications mentioned in the NIT.
- 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 EE 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) 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.
- 15) 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.
- 16) 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.
- 17) Any other information that you may like to obtain, you are free to contact IIT (ISM) before submission of tender.
- 18) IIT (ISM) reserves the right to accept and/or to reject any/ all tenders without assigning any reason.

Assistant Registrar



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Date: 23 August 2018

#### Annexure-I

### <u>Technical Specification for Supply & Installation of Three phase semi and fully controlled bridge</u> rectifier with different loads.

Parameter	Specification		
Input voltage	Three phase, 415 V, 50Hz		
Semiconductor device to be	SCR and Diode discreet modules with rating 100V,		
used	5A or more.		
Output	30 V dc or more and is controllable by changing firing angle.		
	Different loads like R, R-L and R-L-E can be connected.		
	Output voltage waveform across load points that is across R, L etc. should be observable		
	R and R-L type loads should be included with the setup.		
Important features	Isolation between control and power circuit should be provided.		
	Tests points should be provided for measurement and observation of important voltages and Gate pulses		
	using multi-meter and oscilloscope.		
	Clear circuit diagram should be provided on the front panel of the kit with test points.		
	Power ON/OFF switch along with protection for the setup (Fuse, Snubber etc.)		
	The circuits inside the box should be either visible		
	from outside or should have clear access through		
	removable/hinged cover.		
Accessories	Suitable connectors like patch cord and bana connectors should be provided		
	Spare SCR and Diode modules of equal numbers as used in the power section of actual setup are to be provided		
	Laboratory manual with details of circuit diagram should be provided		

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No. EE/INS/168/18-19

### Format for Technical Compliance

Name of the equipment: Three phase semi and full controlled bridge rectifier with different loads.

Parameter	Specification	Complied(Yes/No)
Input voltage	Three phase, 415 V, 50Hz	
Semiconductor device	SCR and Diode discreet modules with rating	
to be used	100V, 5A or more.	
Output	30 V dc or more and is controllable by	
	changing firing angle.	
	Different loads like R, R-L and R-L-E can be	
	connected.	
	Output voltage waveform across load points	
	that is across R, L etc. should be observable	
	R and R-L type loads should be included	
	with the setup.	
Important features	Isolation between control and power circuit	
	should be provided.	
	Tests points should be provided for	
	measurement and observation of important	
	voltages and Gate pulses using multi-meter	
	and oscilloscope.	
	Clear circuit diagram should be provided on	
	the front panel of the kit with test points.	
	Power ON/OFF switch along with protection	
	for the setup (Fuse, Snubber etc.)	
	The circuits inside the box should be either	
	visible from outside or should have clear	
	access through removable/hinged cover.	
Accessories	Suitable connectors like patch cord and	
	banana connectors should be provided	
	Spare SCR and Diode modules of equal	
	numbers as used in the power section of	
	actual setup are to be provided	
	Laboratory manual with details of circuit	
	diagram should be provided	
	diagram should be provided	



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No. EE/INS/168/18-19 Date: 23 August 2018

Annexure - II

#### Format for Financial Bid

NIT No.: EE/INS/168/18-19	Date: 23 August 2018
Bidders Ref: No.	Date:
GSTIN No.:	

Subject: Supply & Installation of Three phase semi and fully controlled bridge rectifier with different loads.

Sl. No.	Full Description of Items with (HSN Code/SAC Code)	Qty.	Rate	Amount
		Packing & Forwarding (if any)  Total  GST  Freight (if any)		
_		Installat	ion (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.