



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

धनबाद, झारखण्ड, भारत, पिन-826004

(मानव संसाधन एवं विकास मंत्रालय, भारत सरकार के अधीन एक राष्ट्रीय महत्व का 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. CERE-500088-2017-18

Date: June 5, 2017

NOTICE INVITING TENDER

Subject: Supply & Installation of Solar System Analyzer

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

S No	Full Description of items/ store	Qty	Delivery
1	Supply & Installation of Solar System Analyzer (Detailed Specification is given in Annexure – I)	01 No	At the Earliest /Ex-Stock

Tender Schedule

Particulars	Date & Time
Last date and time for submission of tenders	27.06.2017 at 1:00 P.M.
Date and time of opening of tenders	27.06.2017 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*



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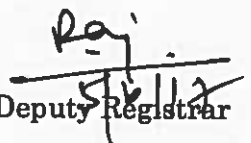
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Terms & Conditions

- 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 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) Your tender must be valid for minimum 90 days from the date of opening of tender.
- 7) Please mention warranty/ guarantee in your offer clearly. Material/ equipment to be supplied must have minimum warranty/guarantee of 12 months.
- 8) *Each page in the bid document must be numbered properly* and duly signed & sealed by the bidder on every page of the bid.
- 9) The items/ materials shall be required to be delivered at CERE Department/ Section through Purchase & Store Section, IIT (ISM) Dhanbad at the risk and cost of the tenderer.
- 10) Unloading and installation shall be the complete responsibility of the supplier.
- 11) The stores are required to be delivered within 30 days. Late delivery may not be accepted.
- 12) The items offered should be of good quality confirming to BIS standards, wherever applicable.
- 13) *Advance payment is not admissible*. Payment shall normally be made within 3-4 weeks subject to receipt and acceptance & installation (as per Purchase Order Terms) of the ordered materials/items.
- 14) 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.
- 15) Please send your 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*.
- 16) Any other information that you may like to obtain, you are free to contact IIT (ISM) before submission of tender.
- 17) IIT (ISM) reserves the right to accept and/or to reject any/ all tenders without assigning any reason.


Deputy Registrar



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ANNEXURE -I

Technical Specification of Solar System Analyzer

Parameter	Technical Specifications
No of inputs Phase	Three-phase (as well as Single-phase)
AC Voltage Measurement	Range=(50/60Hz), 5 V ~ 250V & 250 V ~ 600V, Resolution;" 0.1 V, Accuracy $\pm 0.5 \% \pm 5$ dgts Range=(45-1KHz), 5 V ~ 250 V & 250 V ~ 600 V, Resolution=0.1 V, Accuracy= $\pm 1.5 \% \pm 5$ dgts
AC Current Range	100A AC or more
DC Voltage measurement	Range =1 ~ 1000 V, Resoiution = 0.01 V / 0.1 V / 1 V, Accuracy= ± 1 $\% \pm (1 \% \text{ of } V_{oc} \pm 0.1 \text{ V})$
DC Current Measurement	Range=0.1~12 A, Resolution, 1 mA / 10mA, Accuracy= $\pm 1 \% \pm$ (1 % of Isc ± 9 mA)
Irradiance Measurement	Range=0 ~ 2000 W/m ² , Resolution 1 W/m ² Accuracy = $\pm 3 \% \pm 20$ dgts
Max. solar system power (Pmax) search by Auto-scan:	1000V, 12A (12000W capability)
Temperature Measurement	Range =-22 ~ 80°C, Resolution=0.1 °C , Accuracy = $\pm 1 \% \pm 1$ °C
Range of frequency	45 Hz to 65 Hz
Harmonics of AC Voltage and Current (in %)	(1 - 99 th order) with reasonable resolution & accuracy
Tracing (testing)	I-V curve for solar system can be analysed
Data logging	I- V curves of solar system / recorded for a period of 1 hour.
Measurements	Max. Voltage (V pm) at P max, Max. current (lpm) at Pmax, Voltage at open circuit (Voc), Current at short circuit (Isc), Efficiency (%) calculation of solar system, Temperature measurement of solar panels, Irradiance measurement of sun light, Series resistance (Rs) calculation of solar panels, power factor, frequency, phase angle, DC voltage and current, AC voltage and current. DC power, AC power (actual), THD, Data logging.
Accessories	Solar Irradiance Meter (Remote Solar Detector battery type: rechargeable lithium battery)· Thermometer· USB power cord Rechargeable lithium battery(3400mAh) • Software CO • Software manual • Carrying bag • Thermal conductive gel • Testing clips- 4-wire to 2-wire connecting cable • 4-wire testing Cable. DC current probe. AC power clamp.
Calibration Certificate	Standard (ISO/IEC 17025) Calibration Certificate
Analyzing software	Necessary software with computer interface for analyzing data



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Annexure - II

Format for Financial Bid

NIT No.: CERE-500088-2017-18

Date:

Bidders Ref: No.

Date:

Subject: Supply & Installation of Solar System Analyzer

Sl. No.	Full Description of Items	Qty.	Rate	Amount
			Packing & Forwarding (if any)	
			Total	
			CST/VAT (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, duties, livies, transportation cost and insurance costs etc. if any
- 3) All the rates must be quoted in Indian Rupees.