



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद- ८२६००४

Indian Institute of Technology (Indian School of Mines)

Dhanbad – 826004, Jharkhand, India

No. Mech-500425-2016-17

Date: 19 January 2017

To
M/s

Sub: NIT No. Mech-500425-2016-17 for Supply and Installation of Equipment for surface roughness Measurement – 03 nos

(Due date 14.02.2017)

Sir(s),

Indian Institute of Technology (Indian School of Mines), Dhanbad invites tenders/ quotations for Supply, Installation, Equipment for surface roughness Measurement - 03 nos in our Mech 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.	Tender cost	Rs.1,000.00 (Rupees one thousand only)
2.	Earnest money deposit	Rs. 40,000.00 (Rupees forty thousand only)
3	Last date for seeking clarification(s), if any	07.02.2017 at 3:00 P.M.
4.	Date and time for submission of tenders	14.02.2017 at 3:00 P.M.
5.	Date and time of opening of tenders	14.02.2017 at 4.00 P.M.

Tender document containing following document is available in our website 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. Particular of Bank Guarantee towards EMD as per Annexure –III
4. Compliance Statement as per Annexure -IV

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

[Signature]
19/01/17
Asst Registrar (P&S)

P: 0526-2235612

F: 0326-2296633

E: drps@ismdhanbad.ac.in

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Specification of Equipment for Surface Roughness, Contour & 3D Measurements

Technical Specifications:

Sl. No.	HORIZONTAL PERFORMANCE	
1	Traverse Length (X): min. to max.	0.10 mm to 50 mm or more
2	Measuring speed (Range):	0.5 mm/s to 10mm/s
3	Data sampling interval in X:	0.5 μ m or less
4	Straightness Uncertainty (Pt) - (X-Length)	Maximum 0.3 μ m over 50 mm
6	Number of Data Points	Minimum 1,00,000 data points over full length
VERTICAL PERFORMANCE (ROUGHNESS MODE)		
1	Nominal measuring range for surface finish and contour (Z)	2 mm
2	Resolution range (Z)	3nm to 50nm or better for different measurement range
3	Stylus arm Length, Tip size, force	60 \pm 5 mm arm. 02 micron radius conisphere diamond stylus (or less). 1 mN (minimum) force.
VERTICAL PERFORMANCE IN CONTOUR MODE (TO BE QUOTED AS OPTIONAL ITEM)		
1	Nominal measuring range (Z)	Minimum 25 mm
2	Resolution (Z)	0.5 Micron or better
3	Stylus arm Length, Tip size, force	Includes three interchangeable stylus arms : i) Conical tip with 30 deg. Included angle. ii) Ball tip with 0.5mm radius. iii) Chisel tip with 15 deg. Includes angle.
SYSTEM PERFORMANCE		
1	Calibration Method	Standard and Automatic
2	Calibration Uncertainty - Pt (for Roughness mode)	0.25 μ m (60 mm stylus arm) or less
3	Radius measurement Uncertainty	02% to 0.04% of nominal (Radius of 0.1 to 12.5mm) Up to 0.04% of nominal (Radius 12.5 mm to 25 mm)
SURFACE ROUGHNESS PARAMETER ANALYSIS		
The equipment must be supplied with standard software which should able to collect and analyze parameters as mentioned below :		
1	Primary Parameters	Pa,Pc,Pda,Pdc,Pdq,PHSC,Pku,Pln,Plo,Plq,Pmr \odot ,Pmr,Pp,PPc,Pq,PS,Psk,Psm,Pt,Pv,Pvo,Pz,Pz(jis)
2	Roughness Parameter	R3y,R3z,Ra,Rc,Rda,Rdc,Rdq,RHSC,Rku,Rln,Rlo,Rlq,Rmr \odot ,Rmr,Rp,Rpl max,Rpc,Rq,Rs,Rsk,Rsm,Rt,Rv,Rvo,Rv1max,Rz,Rz(DIN),Rz(JIS)Rz1max.
3	Waviness Parameter	Wa,Wc,Wda,Wdc,Wdq,WHSC,Wku,Wln,Wlo,Wlq,Wmr(C),Wmr,Wp,WPe,Wq,WS,Wsk,Wsm,Wt,Wv,Wvo,Wz.
4	R _s Parameter	A1,A2,Mr1,Mr2,Rk,Rpk,Rvk.
5	R+W Parameter	AR,AW,Pt,R,Rke,Rpke,Rvke,Rx,Sar,Saw,SrSw,W,Wte,Wx.

7	Display functions	Calculation between profiles, Origin settings, X -axis settings, Translation or rotation of co-ordinate system.
9	Filters / Bandwidths	International Standard filters: such as Gaussian, ISO, Fourier etc.
10	Cut – off Ranges	0.08mm (minimum) up to 8 mm, in different intervals
11	2D profile curves Pre-processing of 2D profile measurement data	<ul style="list-style-type: none"> – Profile curve, roughness and waviness profile curves – Levelling, zoom, symmetries (mirroring) – Form removal, retouch surface points, fill in non-measured points – Thresholding, resampling – Join two profiles
– General Specifications		
1.	It should be able to measure the surface roughness profile of the mechanical samples with minimum weight: 200g and minimum Size: 10mm×20mm×20mm.	
2.	PC Compatible software for analysis of surface roughness profiles.	

Optional Accessories: (The price must be quoted separately from the basic equipment)

1. Compatible 100 mm travel motorized stage
2. Compatible 3D profile measurement software.
3. Manual column & base plate for the system.
4. Basic stand for the system.

Techno-commercial conditions:

1. The system should be provided with PC based software for operating the system and to measure and display the surface profiles and parameters indicated above.
2. The system must have the facility to be upgraded for 3D measurements.
3. All parts of the equipment should be from same manufacturer.
4. Interested original equipment manufacturers or dealers or agents may submit their quotations in two bid systems (technical and commercial).
5. Warranty – minimum 3 years from the date of installation and commissioning at the site.
6. Scope of supply should include free assembling, installation, commissioning and training at site.
7. Provide list of such supplied systems in India and abroad both in academics and industry.
8. Technical bid must contain compliance statement for each required points mentioned in the specification and also refer with proper page number of the product literature provided with the tender document.

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Dhanbad – 826004, Jharkhand, India

Annexure-II

GENERAL TERMS & CONDITIONS

NIT No. Mech-500425-2016-17

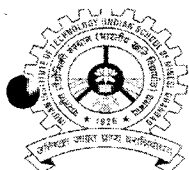
Sealed tenders under **two-bid system** are invited from manufacturers/ their authorized dealers/ agents for supply and installation in IIT (ISM) Dhanbad of items specified in *Annexure-I*.

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 for an amount indicated in Page No 01 and drawn in favor of Registrar, ISM Dhanbad and payable at SBI, ISM campus branch or 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) 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, ISM and payable at SBI, IIT (ISM) campus branch or 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 will 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 should be attached with the technical bid documents.
 - 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. 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. **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) Technical literature/catalogue with the detail specification of the material
 - 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.
5. **Price should be quoted on FOR, IIT(ISM) Dhanbad basis in case of Indigenous supply and Ex-works/FOB, Port of loading/CIF, Kolkata basis in case of foreign supply**. 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.**
6. **Educational discount, if any, should be clearly mentioned.**
7. The Institute is generally at present paying concessional custom duty @9.36% for all items as per Govt of India notification. 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 any Indian Agent/dealer or distributor at any circumstances. ISM will provide only custom duty

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- exemption certificate for availing concessional custom duty. 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 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 should be submitted in favor of Registrar, IIT (ISM) Dhanbad.
 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 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.
 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 days (In case of inside in India)/ outside India through LC only) 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.** However, as a special case 90% Letter of Credit Payment term is accepted only in case of foreign supplier and balance 10% after satisfactory, installation report received from the user department.
 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
 21. FOB/CIF price of the offer" should be clearly indicated in your offer.
 22. Earliest/ expected delivery period should be clearly indicated.
 23. Packing should be suitable for 'Air freight'.
 24. Please note that no part shipment/transshipment/third party shipment is acceptable to us.
 25. **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.***
 26. Tender should be submitted in a sealed cover/envelope and must be superscribed as under:
 - i) "Tender No. Mech-500425-2016-17 (Supply, Installation, Equipment for surface roughness Measurement **(28.10.2016 at 4.00 p.m.)**).
 - 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.

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27. 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.
28. 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.

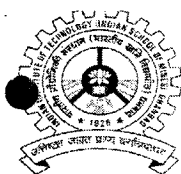
ABOVE TERMS AND CONDITIONS OF THE NIT ARE ACCEPTED

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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Dhanbad – 826004, Jharkhand, India

Annexure-III

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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Indian Institute of Technology (Indian School of Mines)

Dhanbad – 826004, Jharkhand, India

Annexure-IV

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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