

धनबाद, झारखण्ड, भारत, पिन-826004

(मानव संसाधन एवं विकास मंत्रालय, भारत सरकार के अधीन एक राष्ट्रीय महत्त्व 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

NIT No.:ECE/500073/17-18

Date: May 22, 2017

NOTICE INVITING TENDER

Subject: NIT No. ECE-500073-2017-18 for Supply & Installation of **Printed Circuit Board (PCB) Prototyping Machine**

(Due date 13.06.2017)

Indian Institute of Technology (Indian School of Mines), Dhanbad invites tenders/ quotations for supply and installation of printed circuit board (PCB) -01 No(s). in The ECE 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.1000.00 (Rupees One Thousand
		only)
2.	Earnest money deposit	Rs.36,000.00 (Rupees Thirty Six
		Thousand only)
3.	Last date and time for submission of tenders	13.06.2017 at 1:00 P.M.
4.	Date and time of opening of tenders	13.06.2017 at 4.00 P.M.

Tender document containing following document is available in our website www.IIT (ISM)dhanbad.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

Assistant Registrar



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Technical Specification

Annexure-I

Printed Circuit Board (PCB) Prototyping Machine Specifications

S. No.	Specification	Requirement
1.	Resolution (X/Y)	0.2 μm or better
2.	Working area (X/Y/Z)	$30 \text{ cm} \times 40 \text{ cm} \times 9 \text{ cm (maximum)}$
3.	Table size	More than working area
4.	Milling spindle	60000 RPM or better
5.	Repeatability	±5 μm or better
6.	Minimum width line and space	0.1 mm or better
7.	Maximum drilling cycles	100 (drill/min)
8.	Positioning / Precision of front-to-back alignment	± 0.02 mm or better
9.	Maximum thickness of processed material	32 mm or better
10.	Minimum thickness of processed material	0.05 mm or better
11.	Smallest drill size	0.2 mm
12.	Control axis	X, Y, Z
13.	Drilling	0.2 – 3.175 (mm)
14.	Machine voltage	80 – 245 Volts 50/60 Hz
15.	Automatic depth control	Standard
16.	Front panel controls	Standard
17.	Vacuum table	Fully integrated
18.	Sound enclosure	Integrated
19.	Machine hood	Standard supply
20.	Camera	The system should be supplied with positioning color- camera for board alignment, quality inspection, measurement and overlay functions
21.	Tool change	Automatic (12 tools)
22.	Software	CAD software, Conversion & CAM
23.	OS support	Windows 7, 8, 10 (32 bit, 64 bit)
24.	Compatible software	OrCAD, Win PCB, Eagle, Microwave Office, AutoCAD, HFSS, CST Microwave Studio, Ansoft Designer etc.
25.	Convertible file format supported	Gerber, GerberX (274x), Excellon drill output date, DXF



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26.	Interface with PC	USB port
27.	Material of machine	High quality mild steel
28.	Types of materials processed	FR4, FR3, RT/Duriod, LTCC (unfired), Kapton, Polyimide stencil, special films, aluminum panel, engraving of our sizes comparable with our mentioned working area
29.	CAM software	Easy to use software for controlling the machine
29. 30.	CAM software Set of accessories to be supplied	
		✓ 1 pc spiral drill, L _c =0.125", 38mm, d=1.2 mm. ✓ 1 pc spiral drill, L _c =0.125", 38mm, d=1.4 mm. ✓ 2 pc spiral drill, L _c =0.125", 38mm, d=1.5 mm. ✓ 1 pc spiral drill, L _c =0.125", 38mm, d=1.6 mm. ✓ 1 pc spiral drill, L _c =0.125", 38mm, d=1.8 mm. ✓ 2 pc spiral drill, L _c =0.125", 38mm, d=2.0 mm.



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	✓ 2 pc spiral drill, L _c =0.125", 38mm, d=3.0 mm.	
31. Extra Toolset required for RF circuit fabrication	 5 pc end mill (RF), L_c=0.125", 36mm, d=0.25 mm 3 pc end mill (RF), L_c=0.125", 36mm, d=0.40 mm 5 pc end mill (RF), L_c=0.125", 36mm, d=0.15 mm 4 pc end mill, L_c=0.125", 36mm, d=1.0 mm 2 pc end mill, L_c=0.125", 36mm, d=2.0 mm 2 pc end mill, L_c=0.125", 36mm, d=2.0 mm 	

Note:

- 1. Prerequisites for installation should be mentioned along with quotation
- **2.** Provide at least at two installation and satisfactory reports of similar setup from the concern government organization in India like IITs/NITs/ Central Universities/R&D Labs.
- **3.** Service support confirmation in India to be given with three-year warranty from the date of installation.
- **4.** Credential of the manufacturer to be provided with the quotation.



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Annexure-II

GENERAL TERMS & CONDITIONS NIT No. ECE-500073-2017-18

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** systems 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) 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 12 months from the date of installation and commissioning at the site.
- 9. Validity: Offer must be valid for a period of 180 days from the date of opening of tender.



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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 **Deputy Registrar**,

Indian Institute of Technology (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 the order value of purchase order and valid till the period beyond two months of completion of warranty period should be submitted in favour 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.



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद

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28. Institute does not make any advance p	ayment. However, as a special case 9	90% Letter of Credit Payment
terms are accepted only in case of fore	ign supplier and balance 10% after s	satisfactory, installation report
received from the user department.		
 Last date for receipt of tenders and date will be opened in the presence of r holiday/declared as a holiday, next worki 	representatives of tenderers present.	In the event last date is a
30. (i) Tender should be submitted in a seale	E	1 6
"Tender No	_(NIT no. should be mentioned for	(tendered
item should be mentioned) due on	(tender opening date show	uld be mentioned) at
(tender opening time should be mentione	d).	
(ii) All tender shall be received upto to the	ie time and date as stated in the tender i	notice, after which no
tender shall be accepted in any circum	istances.	
(iii) All tender must be send by Registere	ed Post/Speed Post/Courier along with C	Courier receipt, during
IIT (ISM) working days only (i.e. Moreceived at any circumstances.	onday to Friday). Please note that no ha	nd delivery of tender will be
31. IIT (ISM) reserves the right to accept or a	reject any or all the bids in part or in fu	all 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
- 32. In case of any dispute, the decision of IIT (ISM) shall be final and binding on the bidders/tenderers.



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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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Annexure-IV
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
KNOW ALL PEOPLE by these presents that WE (name of bank)
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 Bonk

Signature of the Bank



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Annexure-V

Compliance Statement

Sl. No	Technical requirement as per	What is offered by the tenderer	Status of Compliance	
	NIT		Complied/Not Complied	