

भारतीय सूचना प्रौद्योगिकी अभिकल्पना एवं विनिर्माण संस्थान कांचीपुरम  
Indian Institute of Information Technology, Design and  
Manufacturing Kancheepuram, Melakkottaiyur,  
Chennai – 600 127, Tamil Nadu, India.



**Tender Document**

**For**

**Supply, Erection and Commissioning of CNC  
Vertical Machining Centre**

<b>Item</b>	:	<b>Supply, Erection and Commissioning of CNC Vertical Machining Centre - 01 No. (Specification Enclosed)</b>
<b>Tender Enquiry No</b>	:	<b>IIITDMK/18-19/S&amp;P/PRO/CNC Machine/021 Dt.22.01.2019</b>
<b>EMD</b>	:	Earnest Money Deposit (EMD) for Rs.41,000/- (Rupees Forty One Thousand only) in the form of Demand Draft/ Bankers Cheque/ Bank Guarantee drawn in favour of <b>“The Registrar, IIITD&amp;M Kancheepuram” payable at Chennai.</b>
<b>Submission of Offer</b>	:	<b><u>Two Bid System:</u></b> Two bid system will be followed in this tender. In this system the bidder must submit his offer in <b>two separate sealed envelopes</b> . Both the technical bid and price bid envelopes should be securely sealed and stamped separately and clearly marked as <b>“Envelope No : 1 – Technical Bid”</b> and <b>“Envelope No : 2 – Price Bid”</b> respectively. <b>EMD should be placed in the Technical Bid. . These two separate sealed envelopes should be placed in single envelope superscribing the tender No and description of the item.</b>
<b>Place of Submission Bid</b>	:	The Registrar, Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Off Vandalur – Kelambakkam Road, Melakkottaiyur, Chennai – 600 127.
<b>Due Date (For submission of bids)</b>	:	<b>03:00 PM, 07.02.2019</b> (any bid received after the due date and time by any means will be summarily rejected)
<b>Opening of Technical Bid</b>	:	<b>04.30 PM, 07.02.2019</b>

**Important:**

All communications are to be addressed to in the name of Registrar, IIITD&M Kancheepuram only and not in the name of any officer and mails have to be sent to official purchase email id [purchase@iiitdm.ac.in](mailto:purchase@iiitdm.ac.in)

## Terms and Conditions

1. The Bidders are requested to give detailed tender in two bid format.

**Envelope-I** : **Technical Bid**  
**Envelope-II** : **Commercial Bid**

2. The tender document can be downloaded from the IIITD&M Kancheepuram website [www.iiitdm.ac.in](http://www.iiitdm.ac.in) at free of cost. The duly filled tenders should be submitted to Registrar, Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Off Vandalur – Kelambakkam Road, Melakkottaiyur, Chennai – 600 127 **on or before due date 3.00 PM, 07.02.2019**. Extension of due date will not be entertained.
3. Tenders which are submitted without following the two bid offer system will summarily be rejected.
4. **Envelope No-1 : Technical Bid**

### **Eligibility Criteria & Technical Bid**

- i) The Bidder should be an OEM (or) Authorized Dealer of the item requested. If the bidder is an authorized dealer, they should enclose the valid authorization certificate.
  - ii) The bidder should be experienced and should have supplied FIVE (05) “CNC Vertical Machining Centre” of similar specification (mentioned in Part B Technical Specification of this tender) **not earlier than 01<sup>st</sup> January 2017**. (Enclose the copy of purchase order received).
  - iii) EMD for Rs.41,000/- (Rupees Forty One Thousand only) in the form of Demand Draft/ Bankers Cheque/ Bank Guarantee drawn in favour of **“The Registrar, IIITD&M Kancheepuram” payable at Chennai**. (The EMD without interest shall be returned to the unsuccessful bidders after finalization of the tender).
  - iv) The firms registered and having valid NSIC Certificate are exempt from submission of EMD.
  - v) The leaflet / catalogue in original etc. of the product quoted.
  - vi) Bids should have a validity of **60 days**. The technical offer **should not contain any price information**.
5. The bidders may note that they should submit all documents in support of eligibility criteria, EMD if applicable and technical details in the Technical Bid (Envelope 1). The bids not meeting the same will be summarily rejected. Hence the bidders are advised to ensure that all relevant documents in support of their eligibility are attached.
  6. **Envelope No-2 : Commercial Bid**  
This should contain only the price information along with commercial terms and conditions.

## 7. **Opening of Technical Bids**

The technical bids will be opened on the scheduled date in the presence of the bidders or their authorized representatives who choose to attend the technical bid opening.

## 8. **Technical Evaluation**

- i) Eligibility criteria and all the technical aspects of the bids will be evaluated for suitability and specification. If required, the Institute may seek additional clarification from the bidders.
- ii) The technical recommendation shall be final and binding on all the parties.
- iii) The technically qualified firms will be intimated about Price Bid opening by email.

## 9. **Opening of Commercial Bids**

IIITD&M Kancheepuram will open commercial bids of only the shortlisted bidders in technical evaluation in the presence of the bidders or their authorized representatives who choose to attend the commercial bid opening. The representatives of shortlisted firms only will be allowed for commercial bid opening.

## 10. **Price**

- i) **The Price should be quoted in INR only. GST payable extra.**
- ii) The price quoted shall be for supply, delivery and Installation at specified room of IIITDM KANCHEEPURAM.
- iii) The packing, forwarding, freight, insurance and commissioning charges, if any extra may be quoted separately in commercial bid.

## 11. **Delivery Period / Timelines**

The deliveries and installation must be completed **within 8 weeks** from the date of purchase order. The time is the essence of the contract. It is mandatory for the bidders who respond to this bid to meet this expectation, as this is linked to student's Labs / classes.

## 12. **Supply & services**

- i) The items covered by this document is required to be supplied and installed at Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Off Vandalur-Kelambakkam Road, Melakkottaiyur, Chennai – 600 127, Tamil Nadu.
- ii) IIITD&M Kancheepuram will not provide any accommodation / transportation for the engineers / representatives for attending installation, commissioning and demonstration work. It is the absolute responsibility of the principal supplier / agent to make their own arrangements.

## 13. **Installation**

- i) Bidder shall be responsible for installation / demonstration as applicable and for after sales service during the warranty and thereafter.

- ii) Installation and demonstration to be arranged by the supplier.

#### 14. **Warranty / Support**

- i) The items supplied shall carry the warranty as per the requirement mentioned in the technical specification.
- ii) The defects, if any, during the guarantee / warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, custom duty, octroi, local taxes if any and should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.
- iii) The bidder should arrange for technical support during warranty period within 24 Hours of lodging of complaint.

#### 15. **Indemnity**

The vendor shall indemnify, protect and save IIITD&M Kancheepuram against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc., or such other statutory infringements in respect of all the items supplied by them.

#### 16. **Freight and Insurance**

The items to be supplied will be insured by the vendor against all risks of loss or damage from the date of shipment till such time it is delivered at IIITD&M Kancheepuram site.

#### 17. **Payment**

100% payment after delivery, installation and acceptance by IIITD&M on submission of Bank Guarantee for an equivalent value of 5% of PO value valid till warranty period plus 2 months.

The bidders may note that **Other modes of payment like advance payment and payment against delivery is not considered.**

#### 18. **Penalty for delayed services / LD**

- i) As time is the essence of the contract, delivery period mentioned in the purchase order should be strictly adhered to. Otherwise LD clause will be applied / enforced.
- ii) If the supplier fails to supply, and fix the item as per specifications mentioned in the order within the due date, the supplier is liable to pay liquidated damages of 1% of order value for delay of every week or or part thereof subject to a maximum of 10% beyond the due date. Such money will be deducted from any amount due or which may become due to the supplier.
- iii) IIITD&M Kancheepuram reserves the right to cancel the order in case the delay is more than 04 weeks and the contractor is not eligible for any damage from the Institute and contractor will forfeit his claim for EMD.

**19. Purchasers right to vary quantities at the time of award**

IIITD&M Kancheepuram reserves the right at the time of award of contract to increase or decrease the quantity of items specified in the schedule of requirements without any change in price or other terms and conditions.

**20. Jurisdiction**

The disputes, legal matters, court matters, if any, shall be subject to Courts in the district of Kancheepuram Jurisdiction only.

**21. Force Majeure**

- a) IIITD&M Kancheepuram may consider relaxing the penalty and delivery requirements, as specified in this document, if and to the extent that the delay, in performance or other failure to perform its obligations under the contract, is the result of a force majeure.
- b) If the due date of submission of tender / Tender opening is declared a holiday for the Institute, the due date for submission of tender / Tender will be extended to same time on next working day.

**22. Arbitration**

All disputes of any kind arising out of supply, commissioning, acceptance, warranty maintenance etc., shall be referred by either party (IIITD&M Kancheepuram or the bidder) after issuance of 30 days notice in writing to the other party clearly mentioning the nature of dispute and will be referred to the arbitrator to be nominated by Director, IIITD&M Kancheepuram, India. The Venue for arbitration shall be Chennai, India.

**23. Acceptance of the terms and conditions of tender document**

The bidders has to accept all the terms and conditions of this tender document and it is made known that the bidders quoting for this tender had impliedly accepted the terms and conditions of this tender.

**24. Interpretation of the clauses in the Tender Document**

In case of any ambiguity / dispute in the interpretation of any of the clause in this tender document, interpretation of Director, IIITD&M Kancheepuram shall be final and binding on all parties. The IIITD&M Kancheepuram reserves the right to accept the offer in full or in parts or reject the offer summarily or partly without assigning any reasons.

Sd/-  
कुलसचिव / Registrar  
IIITD&M Kancheepuram

**Item: CNC Vertical Machining Centre**

**A. ELIGIBILITY CRITERIA :**

<b>SL. NO.</b>	<b>Eligibility criteria</b>	<b>Meeting / Not Meeting</b>	<b>Enclosures YES/No</b>
1.	OEM ( Or) Authorized Dealer , If Authorized Dealer the valid Authorization certificate from the OEM must be enclosed		
2.	Should have supplied FIVE (05) "CNC Vertical Machining Centre" of similar specifications (mentioned in Part B Technical specifications of this tender) not earlier than 01 <sup>st</sup> Jan 2017 (enclose the copy of purchase order received )		
3.	EMD for Rs.41,000/- or Valid NSIC Certificate		

**B. TECHNICAL SPECIFICATION:**

SCOPE	<b>SUPPLY, ERECTION &amp; COMMISSIONING OF CNC VERTICAL MACHINING CENTRE WITH IT'S ACCESSORIES – Quantity – 1 No.</b>				
	<b>DMG MORI/EMCO/HAAS/TORMACH brands only</b>				
Sl. No.	Description of Requirement	REQUIRED	OFFERED	DEVIATION	REMARKS
1	<b>Purpose:</b> Vertical machining center will be used for machining of molds and for product developing. <b>Workpiece material:</b> Mostly, the materials machined will be Alloy Steel, Carbon Steel, Cast Iron and other common Ferrous and Non-Ferrous metals.				
2	<b>Major Technical Specification:</b>				
	Table Travel X-Axis	450 mm			
	Table Travel Y-Axis	240 mm			
	Table Travel Z-Axis	400 mm			
3	<b>Workpiece carrier</b>				
	Distance from column face to center line of spindle	Vendor to intimate			
	Height of the table top the floor	Vendor to intimate			
	Distance from spindle nose to table top	Vendor to intimate			
	Load carrying capacity of table	100 kg more			
4	The tabletop should be provided with T-slots at suitable pitch. The No, size and pitch of T-slot, Central Slot tolerance, Lateral slot size and tolerance are to be specified in the technical offer.	Vendor inform technical details			
5	Power Rating	1.5 HP, or more			
6	Spindle Motor Make, Model etc.,	Vendor to intimate			
7	Power supply (AC)	Vendor to intimate			
8	Spindle torque	Vendor to intimate			
9	Speed ranges	Vendor to intimate			
10	Spindle taper	BT30 or R8 or Similar			
11	Rapid traverse X-Axis	Vendor to intimate			
12	Rapid traverse Y-Axis	Vendor to intimate			
13	Rapid traverse Z-Axis	Vendor to intimate			
14	Feed Rate in X-Axis	2.5 m/min or more			



15	Feed Rate in Y-Axis	2.5 m/min or more			
16	Feed Rate in Z-Axis	2 m/min or more			
17	Feed drives/ motors ((Detail of motor, make, type etc. to be submitted)	Vendor to intimate			
18	Feedback system for X, Y, Z axis	Vendor to intimate			
19	Details of system to ensure zero backlash for the axes	Vendor to intimate			
20	Mechanism for locking / Clamping the axes	Vendor to intimate			
21	Clamping force of each axes to be furnished	Vendor to intimate			
22	Joints of telescopic covers should be so sealed to avoid coolant and other lubricating oil seepage.	Vendor to intimate			
23	Vendor to furnish material, hardness of guideways	Vendor to intimate			
24	Coolant pump and motor details for all variants	Vendor to confirm			
25	Machine Enclosure with Access Door	Required and Vendor to confirm and intimate technical details			
26	Machine light working area for clear visibility, All light fittings, consumables, adapters/receptacles should have compatibility with Indian Equivalent, A magnetic base portable spotlight with sufficient long cable should also be supplied	Vendor to confirm			
27	One set of tools for service and maintenance	Vendor to confirm			
28	First filling of all required Oils, lubricants, & Grease etc. for the machine and auxiliary system. to be supplied by vendor. Indigenous (Indian) source or Indian equivalent and specifications of oils/ greases are also to be provided by the vendor. The vendor shall also submit estimated annual consumption of all these items on 7000 hours per year working basis.	Vendor to confirm			
29	Controller	Sinumerik 840D or path pilot or similar controllers			
30	Additional Control Features	Additional 4th Axis should be provided in form of 8" Motorized Rotary Table with 4th Axis Kit			

31	Three hard copies of programming (Basic and Advance), Cycles, Tool management etc. and all operational manuals shall be supplied in English language. Following manuals/diagrams/ list/ specifications shall be supplied in English language along with the machine documentation. Basic Machine operation and maintenance/ service manual - 3 copies. GHOST back up of PCU-50 hard disk on Pendrive/CD	Vendor to confirm			
32	Hydraulic, Pneumatic, Lubrication and Coolant circuit diagram along with part list, complete specification and make of each element used – 3 copies	Vendor to confirm			
33	List of all bearings, L.M. guides, ball bushings etc. with full specification and make. - 3 sets	Vendor to confirm			
34	Spare part list along with specification, part number and address of manufacturers- 3 sets.	Vendor to confirm			
35	Service and user manuals of all bought out items- 3 sets.	Vendor to confirm			
36	Soft copy of provided control system documentation	Vendor to confirm			
37	Vendor to submit one set of all documents in best available condition one month prior to training cum pre-acceptance of IITDM Staffs.	Vendor to confirm			
38	All O&M manuals including electrical schematic, wiring diagram, cable layout, junction box details and connector diagrams soft copy.	Vendor to confirm			
39	Geometrical Accuracy Tests shall be in accordance with relevant & prevailing international standards viz. ISO 1708 or equivalent applicable standard. Detailed Test Charts for the same, clearly showing the accuracies to be achieved on the machine, shall also be submitted with the offer.	Vendor to confirm and submit			
40	Positioning accuracy in X / Y axis (Pa) per 1000 mm	Vendor to inform			
41	Positioning accuracy in Z axis (Pa) per 1000 mm	Vendor to inform			
42	Repeatability in X / Y/Z axis (Ps)	Vendor to inform			
43	NAS- Test Piece machining	Vendor to confirm			
44	Positioning accuracy over entire traverse in X / Y axis (Pa)	Vendor to inform			
45	Positioning accuracy over entire traverse in Z axis (Pa)	Vendor to inform			

46	The Vendor to offer tooling package consisting of all tooling's i.e. cutting tools, tool holders for machining of following components. The tooling package should also contain sufficient number of consumables (inserts, Screws, Shims etc. as well as Solid Carbide Tools) to machine the quantity of components mentioned below against each component. Item wise price shall be clearly indicated in the price bid. Detailed drawing /catalogue of all the tooling's are to be supplied in the event of order (in 3 sets).	Vendor (to offer)			
47	Tools and Equipment required for erection of the machine shall be brought by the vendor. Necessary tools like Torque Wrench, Spanners, Keys, grease guns etc. required for operation and maintenance of the machine should also be supplied by the vendor. List of such tools should be submitted with offer.	Vendor (to offer)			
48	IIITDM Persons should be trained at vendor's works for mutually agreed period in the area of (a)CNC Part Programming, use of all CNC Features, Machining Technology of the Prove out Component etc. (b) Electrical, Electronic & CNC maintenance for machine & other supplied equipment's (c) Mechanical & Hydraulic maintenance of the machine & other supplied equipment's (d) Operation of the machine & other supplied equipment.	Vendor (to offer)			
49	Erection & Commissioning of machine and other accessories with all electrical & mechanical connections shall also be responsibility of the vendor.	Vendor (to offer)			
50	Supplier to take full responsibility for carrying out the erection, start up, testing of machine, it's control & all types of other supplied equipment/accessories, machining of test pieces etc.	Vendor to confirm & offer			
51	Demonstration of specified/offered Geometrical accuracies as per test chart/standard after machine commissioning	Vendor to provide details.			

**NOTE:**

- Certified that we are meeting the Eligibility Criteria and enclosed all the required documents in support of the same. If the document is not in order or not enclosed or any information furnished is found to be false, we hereby agree that our bid is liable to be ejected.

Signature of the Tenderer  
with seal