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**MSME TOOL ROOM - HYDERABAD**  
**CENTRAL INSTITUTE OF TOOL DESIGN**  
 Ministry of MSME – A Govt. of India Society  
 BALANAGAR :: HYDERABAD.500 037

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**TENDER NOTICE**

MSME Tool Room (Central Institute of Tool Design) proposes to procure preferably from the Manufacturers/ their accredited suppliers/Companies with ISO 9000 Certification the following items.

S.No	DESCRIPTION	Quantity	Tender Fee Rs.	EMD/Bank Guarantee (Rs.)
1.	Laser Coordinate Measuring M/c.	1no.	1500.00	2,00,000.00
2.	Profile Projector of 1 meter capacity	1no	1000.00	1,00,000.00
3.	Computer Workstations	78nos	1000.00	1,00,000.00
4.	CNC Tool Attachments, Tooling Sets, Measuring Instruments & Cutting Tools (Full details as per tender documents)	-	1000.00	25,000.00
5.	UPS 15KVA	1no	500.00	25,000.00
6.	LCD Projectors	9nos	500.00	25,000.00
7.	Conventional Lathe M/c.	10nos	500.00	25,000.00
8.	Conventional Milling M/c.	10nos	500.00	25,000.00
9.	Portable Hardness Tester Machine	1no.	500.00	25,000.00
10.	Material Handling Equipment -Battery run power trolley unit of 2 tons capacity	1no	500.00	25,000.00

The parties must have made supplies to Government Organisations and they shall also enclose along with the offers proof of being large manufacturer and the list of clientale.

CITD invites sealed bids in two separate envelopes: **PART I** containing documents of proof of being reputed manufacturers and containing technical bids along with **earnest money deposit** and **Part II containing commercial & price bids**.

The tender should accompany Earnest Money Deposit/Bank guarantee as mentioned above by way of crossed demand draft obtained from the Nationalised bank drawn in favour of Central Institute of Tool Design, Balanagar, Hyderabad. Detailed specifications, terms and conditions can be had from Purchase Deptt. on any working day from 10.30 Hrs to 16.00 hrs. The due date for receipt of tenders is 25.7.2008 at 17.00 hours and the technical bids will be opened on 26.7.2008 at 11.00 A.M. at CITD, Hyderabad. The Tender schedules containing the technical specifications of the above stores can also be downloaded from Institute's web-site [www.citdindia.org](http://www.citdindia.org). The price bids (Part II) of the parties whose bids are technically meeting the requirements of the Institute will be opened separately. The bidders whose offers meet technical requirements shall be communicated about the date and time of opening of price bids at a later date.

The Institute reserves the right to increase or reduce the quantity, postpone/cancel/reject any or all the tenders without assigning any reason. The Institute will not be responsible for any postal delay.

Sd/-  
PRINCIPAL DIRECTOR

# MSME TOOL ROOM : HYDERABAD

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## TECHNICAL SPECIFICATIONS FOR LASER COORDINATE MEASURING MACHINE (1no)

CITD SPECIFICATIONS		PARTY'S SPECIFICATIONS
Table size	1000 x 800mm	
Axis Movement X.Y.Z	800 x 700 x 600mm	
Load on the table	700 kgs	
Scan Speed	19200 real pts/Sec	
Width of view	15mm (min)	
Depth of view	15mm(min)	
Accuracy	8 $\mu$ m or better	
Stand of distance	65mm or more	
Laser type	Class 2 and standard make	
Adjustable camera and Laser quality		
PH10M probe head with TP 200		
Automated qualification of PH10 orientation		
Easy menu based path programming		
Data Import/Export facility to standard CAD/CAM softwares like Pro -E, UG, CATIA etc without loss of data, IGES & STEP interface files		
Standard dedicated software to convert the point cloud data in to solid model/surface model		
Accuracy with PH10M contact porbe-2mm + L/350 or better		
Machine to be offered with Granite bed and Ceremic cross Bridge		

CITD SPECIFICATIONS	PART'S SPECIFICATIONS
Set of probes from $\varnothing$ 0.5 to $\varnothing$ 6mm and star probes, probes knuckles	
Continuous probing/digitizing	
Statistical Quality control facility	
Graphical representation of the reports	
Inbuilt ISO tolerances	
Power - 220V, 50 HZ	
Required computer to be quoted alongwith machine	
Required UPS to be quoted for back up of 30minutes	
Required Air Dryer and Air filters to be quoted	
2 sets of all the manuals in English	
Training to be given for 3 engineers for a week	
Installation to be done by the supplier	
Warranty for one year	
AMC for 2 more years to be quoted	
Both touch and laser scanning probes should have same controller and software	
Laser CMM is to be suitable to measure mainly: Sheet Metal parts Castings Turbine Blades Injection Moulds Foams Glass	

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## TECHNICAL SPECIFICATIONS OF PROFILE PROJECTOR

CITD SPECIFICATIONS			PARTY'S SPECIFICATIONS
<b>I.</b>	<b>GENERAL</b>		
1.	Type	Horizontal type with episcopic & diascope illumination	
2.	Measuring Range	X=750mm, Y=300mm	
3.	Table Surface	1000mm x 200mm with 2 slots	
4.	Work Table Tilt	+/- in horizontal plane with vernier 10"	
5.	Max.Weight of the work place	200kgs	
6.	Focusing axis	200mm (in Z axis)	
	Screen	Fine ground glass screen 1000mm dia with cross lines at 90 degrees	
	Magnification Lenses	10X, 20X & 50X lenses	
	Projection	+/- 0.10% for incident light and transmitted light	
	Accuracies	E1 = 2.0 + L/80mm E2 = 2.8 + L/50mm Resolution : 0.001mm for X & Y axis	
	Electrical connection	220V, 50 Hz	
	Measuring templates	Non shrinking photo films	
<b>II.</b>	<b>MACHINE FEATURES</b>		
	Lighting	Recommended to locate the unit in closed room	
	Sensor	Edge detector provided	
	Movement	Motorized measurement in all three axis with joy stick control, X,Y,Z axis are on LM guides	
	Mounting of Lens	3-lens turret without provided	
	Changing Lens	3-Lens turret without changing lens	
	Lens	High quality telecentric lens	
	Dark shield	Curtain arrangement provided	

	CITD SPECIFICATION		PARTY'S SPECIFICATION
<b>III.</b>	<b>DRO WITH GEOMETRIC FUNCTION</b>		
	Geometric function	All these features are to be provided in the DRO	
	Features	Standard features are to be provided	
	Keys	Standard features are to be provided	
	Sturdy metal base	Should be provided	
	Acoustic signals	Beep Signals availability	
	Context	To be provided in English	
	Optical Edge Sensor	To be provided	
	Step by Step program	To be provided	
	Visual guidance	To be in English	
	Serial & Parallel Port	Serial & parallel ports to interface PC, Printer etc.	
	Monitor with back-lit LCD	To be provided	
	Display of current position	To be provided.	
	Graphical display	To be Provided	
	Opto electronic sensor	To be Provided	
	DRO	Confirmed 9 digits of size = 1.5mm	
<b>IV.</b>	<b>DOCUMENTATION</b>		
	Manuals	Two sets of all the manuals (English) are to be provided	
	Training	Training to be given to 3 of our Engineers	
	Installation & Commissioning	Installation & Commissioning to be done by the supplier	
	Warranty	One year	
	AMC	Two more years	
	Computer and Peripherals	Required computer and peripherals are to be supplied along with machine	
	Stabilizer	Suitable stabilizer to be supplied	
	Demonstration	Demonstrated to be arranged	

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## TECHNICAL SPECIFICATIONS OF COMPUTER WORKSTATIONS

CITD SPECIFICATIONS		PARTY'S SPECIFICATIONS
FEATURES	SPECIFICATIONS	
Processor	Intel Quad - core 2.66 Ghz 1066 Mhz FSB Q 6700	
Chipset	Intel ® x 38 chipset	
Cache Memory	8 MB L2 Cache	
Memory	2 Gb DDR2 667 Mhz ECC Dual Channel DDR2 SDRAM Memory	
Graphic Controller	512 MB PCIe x 16 NVIDIA Quadro FX 3700 Dual Monitor DVI Capable	
Hard Disk Drive	1 x 250 SATA Hard Disk SATA 3.0 Gb/s 7200 RPM with MB Data Burst Cache	
Storage controllers	Integrated SATA 3.0Gb/s controller with support for RAID 0, 1, 5 and 10 Optional SAS 6i/R PCI Express controller card with support for SAS RAID 0 or 1	
Optical Drive	DVD +/- RW Double Layer	
Mouse	Standard 3 button mouse	
Keyboard	Easy Access keyboard	

CITD SPECIFICATIONS		PARTY'S SPECIFICATIONS
NIC	Integrated Broadcom NetXtreme gigabit 10/100/1000 Mbps Ethernet adapter	
Audio controller	Integrated AC 97/16 bit Stereo full-duplex and integrated speaker	
Power supply	375 Watts Power Supply with Power factor correction	
ISV Certification	Workstation shall be certified to run software, Auto CAD, Inverter, Solid Works, Unigraphics, Pro-E other related applications	
Monitor	17" (17.0" viewable) TFAT Flat Panel display	
Operating System	Genuine Windows Vista Business 32 (OR Genuine Windows XP Professional SP2	
Warranty	3 years comprehensive onsite warranty	
Annual Maintenance Contract	For existing 200 systems IBM/ HP /Compaq workstations	

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## TECHNICAL SPECIFICATIONS OF LCD PROJECTOR

CITD SPECIFICATIONS		PARTY'S SPECIFICATIONS
1.	RESOLUTIONS: 1024 x 786 or more	
2.	Brightness: 2000 ANSI Lumens or more	
3.	Contrast Ratio: Minimum 400:1 or more	
4.	Colours : 24bit or more	
5.	Picture Size: 300" or more	
6.	Pixel clock: 130 MHz or more	
7.	Computer compatibility VGA, SVGA, XGA, SXGA MAC	
8.	Video compatibility: NTSC/NTSC 4.43/PAL/SECAM/ASDTV	
9.	Projection method: Front, Real, Ceiling	
10.	Lamp Life: 2000 hours or more	
11.	computer Input signals: 15pin VGA, Female.mouse terminal	
12.	Power Supply: AC 240V/+/- 10% 50/60Hz	
13.	Computer Terminals: D-sub for input, D-sub 15pin for input or monitor	
14.	Audio Speakers: 1W or more	
15.	Warranty: 3 years	
16.	Lamp Warranty: 1 year	
17.	Ceiling mount kit with cables & accessories	

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## TECHNICAL SPECIFICATIONS OF CONVENTIONAL LATHE MACHINE

CITD SPECIFICATIONS			PARTY'S SPECIFICATIONS
1.	Swing Over Bed	325 to 375mm	
2.	Swing Over Cross Slide	200 to 250mm	
3.	Swing Over Gap	500mm	
4.	Distance Between Centres	800 to 1000mm	
5.	Spindle Nose	Cam Lock type	
6.	Spindle Speeds/No.of Speeds	45 to 1800 rpm/16nos	
7.	Taper in Spindle nose	MT 5	
8.	Spindle Bearings	Taper roller/angular contact Ball bearings	
9.	Spindle run out	0.01mm (maximum)	
10.	Head Stock	All Geared	
11.	Feeds-Longitudinal Cross	40 (0.04 to 0.45mm) 40(0.015 to 0.25mm)	
12.	Threads - Metric  Inch	35(0.4 to 7mm) pitch metric 40(4 to 112 T.P.I.)	
13.	Tool Post	4 way/Quick change tool post with Tool Holders	
14.	Tool Size	16 to 20mm	
15.	Taper in Tail Stock	MT-3	
16.	Guide ways	Inverted V & Flat Hardened and ground	
17.	Drive	Fully guarded 'V' Belt (endless)	
18.	Electric Motor	3 HP /3ph 440 Volts 50HZ	
19.	Ele.motor, Starter , belts and pulleys etc required for the machine		

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### ACCESSORIES /ATTACHEMENTS

S.No.	Specifications	Quantity
1.	Three Jaw Chuck with mounting $\varnothing$ 160 mm plate (with forward and reverse jaws) suitable to machine supplied	6nos
2.	Four jaw chuck with mounting $\varnothing$ 200mm plate suitable to machine supplied	6nos
3.	Face Plate with mounting plate $\varnothing$ 300mm suitable to machine supplied	6nos
4.	Taper turning attachment (fitted with one of the machine)	1no
5.	Dead center MT3 (Precision)	6nos
6.	Live Centre MT3 (Precision)	6nos
7.	Spindle sleeve MT 5/3 (Precision)	6nos
8.	Key less drill chuck (0-12mm) with MT3 shank (Precision)	12nos
9.	Chip Tray and Splash Guard	Fitted alongwith all the machines
10.	coolant Equipment	
11.	Machine lamp	
12.	Tool Box	To be supported with every machine
13.	Oil gun/Can	
14.	Operation Manual	
15.	Maintenance and spare parts manual	
16.	Test Certificate	

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## TECHNICAL SPECIFICATIONS OF CONVENTIONAL HORIZONTAL MILLING MACHINE

CITD SPECIFICATIONS			PARTY'S SPECIFICATIONS
1.	Working Surface	250 x 1200 mm /300 x 1300mm	
2.	Longitudinal travel	700 to 900mm	
3.	Cross travel	250 to 300mm	
4.	Vertical travel	400 to 450mm	
5.	Quill travel (for Vertical achine)	Min.100mm	
6.	Spindle speeds/No.of Speeds	40 to 200 rpm/ 18 to 12	
7.	No.of feeds ... Longitudinal Cross Vertical	12 to 16 12 to 16 12 to 16	
8.	Taper in Spindle	ISO 40	
9.	Swivelling angle (for vertical milling machine)	90° each side	
10.	No.of Slots	3	
11.	T.Slot size	14/16mm	
12.	Motor	3 HP -440 volts 50 HZ 3 phase	

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**ACCESSORIES**

S.No.	Specifications		Party's specifications
1.	Draw bar		
2.	Splash guard		
3.	Electric motor and starter	3 HP Max. 3 phase 440 volts 50Hz	
4.	Chip tray		
5.	Coolant pump		
6.	Collet chuck/adaptor		
7.	Collets suitable for above chuck	ø 4 to 25mm	
8.	Swivel base M/c vise	6"	
9.	Universal Dividing head with tail stock and change gear/hole plates	6 ½	
10.	Slotting attachment		
11.	Rotary Table		
12.	Set of operating & maintenance manuals (electrical & Mechanical)		
13.	2 years spare parts		
14.	Anti Vibration pads		
15.	Stub Arbour	ISO 40 -ø 19 and ø 22mm	

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## TECHNICAL SPECIFICATIONS OF POWER TROLLEY

CITD SPECIFICATIONS			PARTY'S SPECIFICATIONS
1.	Carrying capacity	2 tonnes	
2.	Platform size	5 x 4 feet	
3.	Battery back up	8 hours	
4.	Input power	220V, 50 Hz	
5.	Maintenance Free Battery		
6.	Easy to operate		
7.	Required battery charger to be supplied		
8.	Operating of power trolley training to be given		
9.	Maintenance manuals are to be supplied in English		
10.	One year warranty to be provided		
11.	Required spares are to be available locally		
12.	List of the customers in Hyderabad to be enclosed.		

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## TECHNICAL SPECIFICATIONS OF PORTABLE HARDNESS TESTER

CITD SPECIFICATIONS	PARTY'S SPECIFICATIONS
Hardness Tester to be portable & Pocketsize	
The output should be Ra, Rz, R Rms	
Interface possibilities with computer and printer	
Should be possible to measure HRC and HRB	
Necessary Cables and Battery charges are to be supplied by the party	
Indentor/penetrators are to be supplied along with the equipment	
2 Masters for Calibration/setting are to be supplied	
2 years spares are to be quoted	
2 sets of manuals are to be supplied	
Warranty for 2 years	

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## TECHNICAL SPECIFICATIONS OF 15 KVA UPS SYSTEM

S.No.	CITD SPECIFICATIONS			PARTY'S SPECIFICATIONS
1.	<b>INPUT</b>	Volume	415 V + 10% 20% 3 phase	
		Frequency	50Hz +/- 6%	
		Power Factor	0.9	
2.	<b>OUTPUT</b>	Switching Frequency	20KHz	
		Voltage	230V +/- 1%	
		Frequency	50Hz +/- 0.5%	
		Wave Form	Sinusoidal	
		THD	2% on Linear Loads	
		Power factor	0.8 lag to UPF	
		Line regulation	+/- 1%	
		Load regulation	+/-1%	
		Crest Factor	3.1%	
3.	<b>EFFICIENCY</b>	Inverter	96%	
		Overall Efficiency	93%	
4.	<b>PROTECTIONS</b>	Output Short Circuit		
		Charging Current Limit		
		Battery Low		
		Battery Over Charge		
		Output Over Load		
		Inverter Over Temperature		
		Input Low		
		Input High		
		DC Bus short		
		Output Over Voltage		
		Output Under		
		Output shot circuit		

5.	<b>INDICATIONS</b>	Mains High		
		Mains Low		
		Battery Low		
		Battery Over Charge		
		DC short		
		Inverter On		
		Inverter Over Voltage		
		Inverter Under Voltage		
		Inverter Over		
		Temperature Inverter Over Current, Over Load, Mains on		
		Battery Low		
		Battery Over Charge		
6.	<b>METERING</b>	Output Voltmeter (Microprocessor Based LC Display meter Optional)		
7.	<b>OPERATING ENVIRONMENT</b>	Temperature	50° Centigrade	
		Relative Humidity	95% Non-condensing	
		Noise	< 50Db	
8.	<b>INVERTER BYPASS</b>	Static Bypass Switch Optional with load on Mains Indication and Load on Inverter Indication		
9.	CHARGE	Constant Current Constant Voltage		
		Based high frequency charger		
10.	BATTERY	SEALED MAINTENANCE FREE BATTERIES		
11.	BACKUP	One hour		



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### CENTRAL INSTITUTE OF TOOL DESIGN BALANAGAR :: HYDERABAD

#### GENERAL TERMS & CONDITIONS

1. CITD being the premier training institute in Tool Engineering, the supplier should quote competitive prices applicable to all educational institutions.
2. Quotations should be addressed to the Principal Director, Central Institute of Tool Design, Balanagar, Hyderabad 500 037.
3. Late Tenders are liable to be rejected
4. Quotations should be submitted in sealed bids in two separate envelopes Part-I containing documents of proof of being reputed manufacturer and containing technical bids along with earnest money deposit and Part-II containing commercial and price bids in duplicate. These two covers should be sealed individually and both should be put in another sealed cover superscribed with tender No. and date and name of the item. The price bids (Part-II) of the parties whose bids, which are technically meeting the requirements of the Institute will be opened separately. The bidders whose offer meet the technical requirements of the Institute shall be communicated about the date & time of opening of price bids at a later date.
5. Quotations should clearly indicate the minimum time required for effecting supply & the date of delivery should be strictly adhered to. Time is the essence of the contract and the Institute reserves the right to levy liquidated damages @1% of the order value for each week of delay or part thereof subject to a maximum of 5%.
6. Quotations submitted shall be valid for a minimum period of 120 days from the date of opening.
7. The quotations should accompany an interest free EMD prescribed in advertisement by way of crossed Demand Draft obtained from any Nationalized Bank drawn in favour of Central Institute of Tool Design, Hyderabad 37 or cash/equivalent Bank Guarantee. **Quotations without EMD shall not be considered. Firms registered with DGS&D and NSIC or with any Govt. Organisation also need to furnish EMD/BG.** The EMD is liable for forfeiture in case the party fails to execute the order in full part as per the terms and conditions of the order and the Institute may at its option recover all the damages, losses and expenses resulting out of such breach of contract.
8. The Institute reserves the right to alter, cancel, accept, modify vary any terms, quantities, conditions and change the specifications etc., or reject the quotations either fully or partly without assigning any reason therefor.

9. Any order resulting from the enquiry shall be governed by the general terms and conditions of contract of CITD.
10. Where counter terms and conditions of business have been offered, CITD shall not be deemed to be governed by these, and bound by them unless specific written acceptance thereof has been given by CITD.
11. The price must be shown separately for each item, percentage of reduction, if any, in the total price.
12. The Institute reserves the right to increase or decrease the quantity at the time of placing firm order.
13. The Institute reserves the right to reject the material if found substandard and not as per specifications and supplier must make arrangements to replace the same with correct material at the premises of the Institute in case of rejections, immediately within a period of 15days. The party shall bear all costs and expenses involved in such an event.
14. The quotations should clearly indicate the percentage of tax, excise duty, octroi charges and other levies and also furnish the APGST and CST certificate numbers.
15. The Institute will issue "C" form wherever necessary.
16. The income tax at source will be deducted from the bills wherever applicable.
17. Parties are required to submit their sealed quotations superscribing on the left side of the envelope the details of tender notifications, last date and the item for which the tender is submitted.
18. The offers quoted shall be for free delivery of stores at the premises of the Institute. For outstation parties, the supplies must be for door delivery at the premises of the Institute FREIGHT PAID. All goods liable to damage or deterioration in transit must be insured which should be arranged by the suppliers at their own cost.
19. As a policy, the Institute will not make any advance payment or allow documents for negotiation through Bank. However, the bills are normally cleared with 60 days time subject to our inspection and acceptance and also further subject to supplier's compliance of the purchase order conditions fully. However, parties are not entitled to claim any interest for the payments made beyond 60days.
20. Mere participation in the tender and offering of lowest rates does not confer any right on any party for placing order on them.

21. All the disputes arising out of the contract shall be subject to HYDERABAD Jurisdiction only.
22. Parties are required to effect supplies, commission and install the machinery/equipment/items at any place in the State of **Andhra Pradesh** designated by the Institute and extend/maintain warranty/guaranty at such places, Guaranty/Warranty commences from the date of completion of installation/commissioning and Training.
23. For all the matters concerned to and not covered herein above, the decision of Principal Director shall be final and binding on the parties.
24. Besides standard warranty for 12 months from the date of Installation & Commissioning , parties should quote prices separately for additional two years warranty.
25. Parties should give performance Bank Guarantee for the equipment design, material used and for workmanship during the standard warranty period and also for subsequent two years warranty for a value of 10% of the total value.
26. The offers must contain the details of compulsory accessories optional accessories, spares separately and quoted item –wise in the tender.
27. Commissioning./erection charges if any extra should be specifically quoted separately with details of labour charges.
28. The equipment offered shall be strictly conforming to the specification and for complete unit with correct accuracies as per standard dimensions mentioned.
29. CITD will have the option to pre-inspect the machine/equipment at suppliers works by its own inspector or by third party agency appointed for this purpose. The final inspection will however be carried out at CITD works at Hyderabad.
30. Suppliers must submit their offer alongwith the list of customers (with their full address and their purchase reference number) to whom they have supplied similar machine in the past five years. The date of supply should also be indicated.