VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, ODISHA

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No.-VSSUT/PE / 99 /16 Dated: 11/04/2016

Tender Call Notice for Supply, Installation and Training of Laboratory Equipment/Software for Department of Production Engineering

Registrar, Veer Surendra Sai University of Technology, Burla (VSSUT) invites offers from the Manufacturer/Authorized Dealers for Supply, Installation and Training of Laboratory Equipment/Software for the Department of Production Engineering, VSSUT, Burla. Tender papers with all specifications, terms and conditions will be available in the official website of the University (www.vssut.ac.in) which can be downloaded and submitted after filling it up completely. The cost of the tender paper is Rs. 500/- (Rupees five hundred sonly), which can be paid in the form of a demand draft drawn in favour of 'Veer Surendra Sai University of Technology, Burla" from any nationalized bank, Payable at Burla. The DD must be submitted along with the tender paper; otherwise the tender paper shall be liable for rejection. The tenders are to be submitted only by **Registered Post/Speed Post**. No hand delivery shall be accepted.

IMPORTANT DATES:

Last date for submission of tender papers	**04.00 PM of 29.04.2016**
Opening of tender Papers	**11.00 AM of 30.04.2016**

Registrar

Memo No. VSSUT/PE / 100 / 16 Dt. 11/04/16 Dated 02/04/2016

Copy to:

1. M/s Display lines, 219, Saheed Nagar, Bhubaneswar-751007 with a request to publish the above advertisement in one issue of the Odisha daily edition (ALL ODISHA EDITION) of THE SAMAJ and the Odisha edition of The Indian Express using minimum space at I & PR approved/lowest rates. The bills may be sent to the Comptroller of Finance, VSSUT, Burla -768018 in TRIPLICATE along with copies of the paper in which the publication is made, for necessary payment.
2. The University/Department Notice Board for publicity
3. Dean F&P, with a request to hoist the tender call notice in the University web site www.vssut.ac.in for wide publicity.
4. SO Accounts, for information and necessary action. The expenses shall be met from Tools and equipment fund and University development fund.

Registrar

O/C

Section I: Invitation for Bids

Sealed Bids (properly stitched separately) in two separate covers **(Technical Bid and Price Bid)** are invited by the **"The Registrar, Veer Surendra Sai University of Technology, Odisha"** from the manufacturers/authorized distributors/ dealers for Supply, Installation and Training of Laboratory Equipment/Software for the Department of Production Engineering, VSSUT, Burla.

All bidders are required to submit EMD not less than 2% of the quoted amount in the shape of Demand draft drawn in favour of "Veer Surendra Sai University of Technology, Burla" payable at Burla only. The EMD shall be in Indian Rupees. Non-submission of EMD or submission of EMD of lesser amount than required shall result in rejection of bid. The EMD deposited against other bids cannot be adjusted or considered for this Bid. No interest is payable on EMD.

The Bidders may download the **Tender Documents** directly from the website available at **http://www.vssut.ac.in** and the Tender cost fee of Rs.500/- (Non-refundable) by way of separate Demand Draft drawn in favour of **"Veer Surendra Sai University of Technology, Burla"** payable at Burla should be enclosed along with the Bid. The Tender cost fee and the EMD amount should be submitted separately in separate demand drafts. In case of any bid clarification, responsibility lies with the bidders to collect the same from the website and the purchaser shall have no responsibility for any delay/ omission on part of the bidder.

Time Schedule

a) Date of commencement of downloading bidding document **05.04.2016 at 11.00 AM**
b) Last date and time for Receipt of bids **29.04.2016 up to 4.00 PM**
c) Time and date of opening of Tender & Technical Bid **30.04.2016 at 11.00 AM**

Place of Receipt and Opening of Tender

The Registrar
Veer Surendra Sai University of Technology, Odisha
P.O.- Burla Engineering College, Dist-Sambalpur-768018,
Tel. No-0663-2430211 Fax No-0663–2430204

Delivery as well as Billing Address

The Registrar
Veer Surendra Sai University of Technology, Odisha
Burla, Dist.- Sambalpur, Odisha, 768018

Registrar

Section II: Terms and Conditions

1. The cost of Tender documents is Rs.500.00 (Rupees five hundred only) (Non-refundable). The Tender documents can be downloaded from the University website www.vssut.ac.in. A demand draft towards the cost of Tender documents drawn in favor of "Veer Surendra Sai University of Technology, Burla", payable at Burla must be submitted along with Tender.

2. This Tender documents must be filled up completely and signed by the authorized signatory of the bidder on all the pages as acceptance of all the guidelines, terms and conditions laid in this Tender document.

3. The completed document must reach to "The Registrar, Veer Surendra Sai University of Technology, Burla, PO. Burla, Dist. Sambalpur-768018 (Odisha)" by the last date of submission i.e. **29th April 2016 by 4.00 PM** in a sealed cover by **Registered/Speed Post**. The tenders received after the due date and time are liable to be rejected. Tender by FAX/ e-mail or any other media will not be entertained. The University is not responsible for delay, loss or non-receipt of Tender documents sent by post.

4. The tender comprises two parts i.e. 1.**Technical bid** and 2. **Financial Bid**. The first part is technical bid where the vendor is required to give the details of the firm and the confirmation on technical specification. If there is noncompliance in respect of any item, all details thereof must be provided. The second part is financial bid where the vendor is required to quote the rates only. No other information/condition is to be mentioned in the financial bid. Conditions if any, are to be given in the technical bid only. The technical and financial bids are to be submitted in separate envelopes.

5. The envelope containing the Tender must be super-scribed as "**Supply, Installation and Training of Laboratory Equipment/Software for Department of Production Engineering**".

6. The Tender should contain the following documents.

   a) Tender application as per Annexure-I.
   b) This Tender document must be signed on each page by the authorized signatory of the bidder.
   c) Detail Name & address with Phone no. /FAX No, e-mail ID of the contact person.
   d) Demand Draft (Non-refundable) towards the cost of Tender documents.
   e) Self-attested copies of VAT clearance certificate/IT return/service tax clearance certificate.
   f) Documentary evidences/ technical literature/catalogues in original for the model.

7. The quoted price must be inclusive of freight, packing, forwarding, transit insurance etc. for delivery at VSSUT, Burla. The installation, commissioning and demonstration shall be at the cost of the supplier.

8. The bidder may bid for all the packages, part thereof or part of a package from the schedule of requirements mentioned herewith.

9. The Tender and the quoted prices shall be valid for 90 days from the date of submission of the Tender.

10. The University will evaluate the technical & financial aspects of the Tenders. The University shall consider placement of orders for commercial supplies only on those eligible bidder whose offers are found to be technically, commercially and

financially acceptable and who have accepted the terms and conditions as stipulated in this Tender document.

11. Tender should be filled with neat legible and correct entries. Indistinct figures should be avoided. Any erasures and alterations made while filling the tender or figure/figures are not permitted. Failure to comply with either of these conditions will render the tender void. No advice of any change in rate or conditions after opening of the will be entertained.

12. On all the matters relating to this Tender call document, the decision of the University shall be final and binding and the same cannot be referred to the court of law. The University reserves the right to reject any or all of the Tenders without assigning any reason what so ever.

13. For proprietary items, the certificate of proprietary item must be submitted along with the bid. If any item is supplied by an authorized firm, the manufacturer's authorization certificate must be submitted along with the bid.

14. Any deviation in technical specifications shall not be entertained ordinarily. The University reserves the right to modify the specifications during the execution stage of the purchase process. Wherever the technical specifications of items are changed either at the University request or at Bidder's request, revised price will be fixed, if necessary, by negotiations and as agreed upon by both parties.

15. The University reserves the right to order all or part or none of the items and/or services given in this document.

16. The quantities in the schedule may be increased or decreased to any extent depending upon the actual requirement.

17. Unless otherwise specified in the order, the order price shall remain firm and will not be subject to escalation of any description during the pendency of the order, notwithstanding the change in the cost of materials, labour and/or variations in the taxes, duties and other levies on raw materials and components may take place while the order is under execution even if the execution of the order is delayed beyond the completion date specified in the order for any reason whatsoever.

18. The University may reject the bid even if it is accepted but the successful bidder fails to execute any of the guidelines, terms and conditions mentioned in this Tender document.

19. All the items are to be door-delivered to the University within 6 weeks of the issue of the purchase order. In case the supplier fails to deliver the goods within the due period, the University reserves the right to cancel the purchase order and to place orders with other firms without assigning any reason thereof.

20. The supplier must supply all ordered items at a time. Part supplies are not acceptable and will not be entertained on any account. Any loss or damage during transit will be replaced at the cost of supplier.

21. All bidders are required to submit EMD not less than 2% of the quoted amount in shape of Demand draft drawn in favour of "Veer Surendra Sai University of Technology, Burla" payable at Burla only. The EMD shall be in Indian Rupees. Non-submission of EMD or submission of less EMD than the desired one shall result in rejection of Bid. The EMD deposited against other Bids cannot be adjusted or considered for this Bid. No interest is payable on EMD.

22. The EMD amount of the successful bidder will be kept as retention money and will be released only after supply and installation of the furniture in place. However, the EMD amount of other bidders will be returned back after the tendering process is completed.

23. The supplier shall be liable to complete all installation and demonstration of the instruments at the site within 30 days from the date of receipt. All packing must be opened at the site and be handed over to the consignee, at the supplier's cost.

24. The equipment supplied will be under warranty for a period of 2 years from the date of installation and demonstration. Free replacement of faulty parts including free technical support shall be provided during the warranty period. Warranty Certificate shall be submitted at the time of delivery.

25. The supplier is required to take care of change in technology and supply the higher version of the equipment available at the time of delivery at the same total cost as per the order. The operating manuals in original must be supplied at the time of delivery of the equipment.

26. The software supplied will be under warranty for a period of two years. Any upgrade of the software during the warranty period must be made available without any extra cost.

27. The supplier shall submit all bills in triplicate on printed forms to the University.

28. The supplier must submit valid and up-to-date VATCC and copy of IT return along with the bill before release of payment. The bidder shall also indicate the applicable prevailing VAT.

29. The University will make payments through account payee cheque in Indian Rupees. No interest on any deferred claim arising out of this purchase shall be payable in any case whatsoever. No payment will be made for instruments rejected at site during demonstration.

30. 100% payment of the billed amount will be made only after 30 days of receipt of equipment in good conditions and successful performance on site from the final date of demonstration as per the specifications.

31. The University reserves the right to cancel the purchase order if the equipment supplied fail to meet the specification mentioned within the terms and conditions of this Tender call document. The University shall not be held responsible for any loss or damage suffered by the bidder as a result of the cancellation of the purchase order.

32. Any dispute arising out of the deal shall be subjected to the jurisdiction of the court at Sambalpur within the State of Odisha.

Section III: Annexures and Forms

Annexure I: Tender Application

To,

The Registrar
VSSUT, Burla

Sub: Supply, Installation and Training of Laboratory Equipment/Software for Department of Production Engineering.

Dear Sir,

I/We the undersigned have carefully gone through and clearly understood the specifications, quantities with terms and conditions mentioned in the tender document for the above mentioned work do hereby tender to execute and complete the supply in accordance with the priced bill of quantified and/or as per given specifications.

It is understood that the lowest or any tender will not necessarily be accepted and that you are not bound to assign any reason thereof for the same.

I/We agree to keep our offer open for 90 days from the date of opening of tender.

Having examined the schedule of requirements relating to the proposed tender for supply of equipment/software and having acquired the tenders invited by you, we the undersigned hereby offer to execute, complete and maintain the proposed work in strict accordance with the conditions and specifications described in the tender document at the item rates quoted by us in the tender.

We undertake to complete and deliver the total work within the stipulated time period from the date of issue of work order by the competent authority.

Place: Signature & Stamp of vendor

Date:

Name and address of the vendor

Annexure II: Technical Bid

To be filled and signed by the authorized signatory of the firm & this is to be put in separate sealed cover superscribed with "Technical bid for Supply, Installation and Training of Laboratory Equipment/Software for Department of Production Engineering".

1	Name of the firm	
2	Address	
3	Contact No.	
4	Date of commencement of business	
5	PAN No. (Attach a copy)	
6	VAT/CST Registration No (Attach a copy)	
7	Whether previous experience in the field (Attach proof)	
8	Warranty information.	Please attach list of items along with relevant warranty, if applicable
9	Product brochure/literature for each item	Attach copies of product brochure/literature for each item
10	Particulars of EMD attached	DD No_____ Date_____ Amount Rs._____ Issuing Bank Name_____

Signature of the Vendor with seal

Annexure III: Price Bid

Name of the OEM/Business Partner of OEM:

S/N	Name of the Equipment/Software: Make: Model:	
1	Base Price/Unit (C1)	
2	VAT @_____(C2)	
3	Freight Charge (if any) (C3)	
4	Any Other (If any) (C4) (Pl. mention Details)	
5	Total Price C1+C2+C3+C4=	
6	Total price in Words	

Note- (i) Price Bid Proforma should be provided individually for each equipment/software.

(ii) Taxes like VAT, Freight and or other taxes/ Charges, if any applicable must be explicitly mentioned in this price schedule. Any type of correction/ addition in price schedule shall not be permissible.

Annexure IV: Schedule of requirements and Technical Specifications

PACKAGE-1 (Metal Cutting Laboratory)

S/N	Name of the Equipment	Technical Specifications	Quantity
1	**Lathe Tool Dynamometer**	Force: XYZ direction, Range of force: 100-500kgf in XYZ directions, Tool bits: 12.5mm/25mm, Sensor: 4 arm bounded strain gauge component bridge for each force, Bridge resistance: 350 Ohms typical, Bridge voltage: 12 volts Maximum, Linearity: ±1% of full scale, Accuracy: ±1% of full scale, Tool post dia: 20mm (any other size available to be indicated), Center height: To be indicated.	1
2	**Drill Tool Dynamometer**	Force: Torque and Thrust, Range of force: 100kgf-500kgf, Sensor: 4 arm bonded strain gauge component bridge for each force, Bridge resistance: 350 ohms typical, Bridge Voltage: 12 Volts Max, Linearity: ±1% of full scale, Accuracy: ±1% of full scale, Additional Facility: Self centering vise 3" size to hold the Specimen.	1
3	**Table Top Drilling Machine**	Max. Drilling Capacity: 12 in Steel, Motor Power:0.75 KW /1440rpm /0.75 KW /2880 rpm, Spindle Speed: 940, 1440, 2200 rpm/1880, 2880, 4000 rpm, Spindle Travel: 125 mm, Working Stroke: 100 mm (Variable), Working Area: 225 mm × 225 mm, Thrust Load at 6 bar: 210 kg, Distance between Spindle to Table(max.): 310 mm, Distance between Spindle to Column Front: 185 mm, Distance from Table top To Base: 715 mm, Hydraulic Power pack: Motor Power: 0.75 kw/ 1400 rpm, Tank Capacity: 75 lts, Pump Output: 15.6 lp, Operating Pressure: 30.35 bar, Machine Size: 1200 L× 500 W ×1700 H	1

PACKAGE-2 (Computer Aided Design Laboratory)

S/N	Name of the Equipment	Technical Specifications	Quantity
1	SolidWorks EDU Edition 2015-16 NETWORK	License Type: Academic Perpetual Classroom License- 30 users, with User Manual and Tutorials	1
2	DELMIA V5-6R 2013 or latest	License Type: Academic Perpetual 5 users, with User Manual and Tutorials	1

PACKAGE-3 (Robotics and FMS Laboratory)

S/N	Name of the Equipment	Technical Specifications	Quantity
1	6-Axis Articulated Robot	Vertical Articulated Five bar Linkage, No. of Axis: 6 (3 Axis waist-shoulder-Elbow manipulator with 3 Axes Roll-Pitch-Roll spherical wrist), Pay Load: 2.5 kg, Tip Speed: 0.2 m/s, Repeatability: ±0.3mm, Link 1: 300 mm, Link 2 : 400 mm, Vertical Height: 400 mm(450 mm with controller box), Joint Actuators: DC Servo geared motors, Transmission: Joint 1: Worm Wheel Drive, Joint 2 & 3: Ball Screw, Joint 4,5 & 6: Belt Drive, Gravity Compensation: 100% (Non-Back drivable ball screw), Position Feedback: Optical Encoder (HP 2 Phase 500 ppr), Gripper: Pneumatic, Waist: 340 degrees, Shoulder: 45 degrees, Elbow: 60 degrees, Roll: 340 degrees, Pitch: 180 degrees, Roll: 340 degrees, Controller: PC based, FPGA Based Motion Control Algorithm, Support for 2 additional axes excluding gripper, Sensors (Manipulator): Datum Home sensors for each axis and software limits. Proximity Home Sensors, Control Software: Robot Programming Language, Teaching: Offline, Joint Space programming, Co-ordinate space programming, Path Type: Point to Point/ USB, Linear & Circular Interpolation Path, Communication: PC Ethernet port, Accessories& Input/ Output: 2 servo axis each with 3 digital inputs and one output : 16 digital Inputs/Outputs, Power Supply: 230 V AC, 50/60 Hz	1
2	4-Axis SCARA Robot	Configuration: SCARA, No. of axes: 4, Link 1: 200 mm, Link 2: 200 mm, Pay Load: 1.5 kg, Reach : 400 mm, Tip Speed:	1

		0.2 m/s, Joint Actuators: DC Servo gear Motor (Ratio 1:250), Transmission: Spur gear drives with pre-tensioned timer belts, Position Feedback: Optical Encoder (HP 2 phase 500 ppr), Standard Gripper: Pneumatic, Optional Gripper: DC electrical Parallel Jaw Gripper, Joint 1: 270°, Joint 2 : 270°, Joint 3: 100 mm, Joint 4 : 600°, Controller : PC based, PID Control Algorithm, Support for two Additional Axes Excluding Gripper, Sensors: Positive & Negative Proximity end limit Sensors, Proximity Home Sensors, Control Software:, Robot Programmimg Language, Low label modules for user programming in C, Path type: Point to Point, Continuous Path, Power Supply: 230V AC, 50/60 Hz	
3	Robot Application Experimental Kits	1. Robot Experiment Table for robot access to complete multiple experiments 2. Machine Loading & Unloading-Pneumatic vise: Experiment module including a pneumatic vise to demonstrate how the robot can be programmed to load milling machines. 3. Machine Loading & Unloading-Pneumatic chuck: Experiment module including a pneumatic chuck to demonstrate how the robot can be programmed to load a lathe. 4. Pick & Place (Vertical Stacking of objects, Horizontal palletizing): Experiment module to demonstrate pick and place operations by the robot consisting of a pallet and objects for stacking. The robot can be programmed for various stacking patterns on the pallet. 5. Assembly & Dismantling (Bearing assembly to shaft/gear): Experiment module to demonstrate assembly capabilities of the robot consisting of bearing assembly that the robot can assemble and disassemble. 6. Gluing and Painting Experiment Kit: Experiment module to demonstrate capabilities of the robot to emulate flexible operations such as gluing, welding, painting.	1 Set

		7. Testing Bank of Push Button Switches: Experiment module to demonstrate capabilities of the robot in testing environment requiring repeated operation such as push button switches or keys.	

PACKAGE-4 (Condition Monitoring & Tribology Laboratory)

S/N	Name of the Equipment	Technical Specifications	Quantity
1	**Pin on Disc Friction & Wear Test Rig**	Normal Load Range: upto 200 N, Frictional Force Range: Upto 200 N with a resolution of 1 N with tare facility, Wear Measurement Range: ± 2 mm, Sliding Speed: 0.26 to 10 m/s, Disc Speed : 100 to 2000 rpm, Present Timer Range: upto 99 hrs:59 min: 59 s, Wear Disc Diameter : 165 mm & 8 mm, Wear disc Track Diameter : 10 to 150 mm, Specimen Pin Diameter & Diagonal : 3 to 12 mm, Pin Length : 25 to 30 mm	1
2	**Injection Moulding Machine**	Injection System, Screw Diameter: 25/ 28/ 32 mm, Injection Pressure: 1817/ 1447/ 1113 kgf/cm^2, Theoretical Injection Volume: 70/ 88/ 111 cm^2, Max. Shot Weight (PS): 74/2.6 , 92/3.2, 117/4.1 g/oz, Injection Speed: 8.3 cm/s, No. of Temp.: C_{on}: 3 zone, Clamping System: Clamping Force: 300kN, Distance between Tie bar: 370 X 200 mm, Top Platen Size: 495 X 325 mm, Bottom Platen Size: 540 X 380 mm, Min. Mold Height: 120 mm, Opening Stroke : 180 mm, Max. Opening Distance: 300 mm, Ejector Force: 13 KN	1

PACKAGE-5 (Virtual Manufacturing Laboratory)

1	**3 D Scanner**	Sensor Head, Measuring Distance (z): 760 mm, Size (W*H*D): 43X16.5X26 cm, Measuring Time: 2.5 Sec, Light Source: Blue LED, Field of view/ Measurement Volume: Measuring Field 400, Measuring Volume (X*Y*Z): 370 x 277 x 250 mm^3, Measuring point Distance: 0.316 mm, Tripod Stand: Adjustable tripod on wheels (operation with or without lockable wheels) with manual tilt axis.	1