



VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

PO- ENGINEERING COLLEGE BURLA, DIST-SAMBALPUR,

ODISHA-768018

No. VSSUT/Elect/Tender/662/2017

Dated:15/09/2017

TENDER CALL NOTICE

Sealed tenders are invited from original Manufacturers/Authorized dealers for the supply of materials for Computation laboratory of Electrical Engineering & EEE Department at VSSUT, Burla, Sambalpur, Odisha. The tenders shall reach the office of the undersigned through **Speed/Registered** post only **on or before 26.10.2017 up to 05.00PM.**

For more details, please visit our University Website **www.vssut.ac.in**. The authority reserves the right to accept or reject all the tenders without assigning any reason thereof.

Sd/-REGISTRAR

No. VSSUT/Elect/Tender

/2017

Dated:

Copy to:

1. M/s Display Lines, 219, Saheed Nagar, Bhubaneswar – 751007 with request to publish the above advertisement in one issue of the all Odisha daily edition of “THE SAMAJA” and “**THE INDIAN EXPRESS+THE NEW INDIAN EXPRESS (ALL EDITIONS)**” at the I & PR approved/lowest rate. The bill may be sent in triplicate along with a copy of the paper in which the publication is made.
2. University /Department Notice Board of VSSUT, Burla.
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. Comptroller of Finance, VSSUT, Burla for information and necessary action.
5. HOD, Electrical Engineering & EEE, for information and necessary action.
6. PA to Registrar for information and record. This is based on proceedings of Faculty Meeting held on 05.08.2017 at 10:00AM in the Dept. of EE & EEE and approval of the proposal for procurement of Equipments/Instruments by the Hon’ble Vice-Chancellor on Dt. 11-09-2017 at File No. EE/79 of Dept of Electrical Engg.
7. PA to Vice Chancellor for information of the Hon’ble Vice Chancellor.

REGISTRAR

Section I: Invitation for Bids

Sealed Tenders in two bids system (Technical Bid and Price Bid) are invited by the “The Registrar, Veer Surendra Sai University of Technology, Odisha, Burla” from reputed Equipment Manufacturers/ Authorised Dealers having up-to-date VAT / Service tax clearance certificate/PAN/ GST and TIN/ GSTIN for supply of materials for laboratories of Electrical Engineering & EEE Department at VSSUT, Burla campus. The intending Bidders may download the Tender Documents directly from the website available at www.vssut.ac.in.

All the bidders are required to submit EMD not less than 2% of the quoted amount in the shape of Demand draft in favour of “**The Registrar, Veer Surendra Sai University of Technology, Burla**” payable at SBI, Burla. The EMD shall be 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 cost of tender document of Rs.500/- (Non-refundable) is to be submitted in shape of Demand Draft drawn in favour of “**The Registrar, Veer Surendra Sai University of Technology, Burla**” payable at SBI, Burla along with the technical Bid. The tender cost fee and the EMD amount should be submitted separately in separate demand draft. 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. The envelope containing the Tender must be super-scribed as “**TENDER FOR ELECTRICAL ENGINEERING & EEE DEPARTMENT**” and tender notice No. & date.

Time Schedule:

- a) Date of commencement of downloading bidding document **18.09.2017 at 10.00 AM**
- b) Last date and time for Receipt of bids **26.10.2017 up to 5.00 PM**
- c) Time and date of opening of Tender & technical bid **31.10.2017 at 11.30 AM**
- d) Time and date of opening of price bid : to be notified later on after verification of technical bid

Place of Receipt and Opening of Tender and Address for Communication

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

REGISTRAR

Section II: General Terms and Conditions

GENERAL TERMS & CONDITIONS OF CONTRACT FOR SUPPLY, INSTALLATION AND DEMONSTRATION OF THE HARDWARE, SOFTWARE, REQUIRED FOR DEPARTMENT OF ELECTRICAL ENGG. & EEE, VSSUT, BURLA, ODISHA.

1. Document Establishing Bidder's Eligibility & Qualification

The Bidders shall furnish as part of the Bid the following Documents establishing Bidder's eligibility and qualification to the Purchaser's satisfaction.

- 1.1 Manufacturer / Authorized Distributor / Dealer having valid license / certificates for the quoted item and the direct Importers holding valid Import License Manufacturer / Authorized Distributor / Dealer of the product are eligible to participate in the Bid.
- 1.2 Bidders should have **ISI or equivalent** certification for quoted instruments and equipment. However, the Purchaser shall have the right to consider the items where ISI or equivalent certification is not applicable.
- 1.3 The Bidder whether manufacturer/ distributor/ dealer must have experience of supply and installation of the quoted items in reputed Government Institutions / Public Undertakings / reputed Private Institutions within India during last preceding 03(Three) years reckoned from the date of bid opening and the details must be submitted along with documentary proof.
- 1.4 The Bidders shall have to produce document in support of their service associates **nearest to Bhubaneswar/ Sambalpur**, Odisha.
- 1.5 Bidder shall have to provide demonstration of hardwares to **Purchaser within 15 days of delivery**.
- 1.6 The Bidder shall quote items of one reputed Brand/model with all accessories in complete to perform functionality of Equipment.
- 1.7 Manufacturer has to submit copy of Industry Registration of quoted products and Tax Registration Certificate issued from Competent authority. In case of Authorized Distributor / Dealer/Suppliers have to submit Manufacture authorization along with copy of above documents of Manufacture Industry.

2. Document Establishing Goods Eligibility

The Hardwares and Softwares offered against the schedule of requirement, should be in accordance with the stipulated specifications and of one reputed brand/model (**N.B: Variation in specification is allowed upto±5% in case of Hardwares**)

- 2.1 The documentary evidence establishing the brand and the model may be in the form of literature, pamphlets, manuals etc.
- 2.2 Detailed description of hardwares and softwares with essential technical and performance characteristics may also be furnished.
- 2.3 The Bidders should clearly mention in their bid regarding the compatibility of the various equipment or the individual units.
- 2.4 The quantity shown in the bid can be increased or decreased to any extent depending upon the actual requirement.
- 2.5 The hardwares should have testing certificate for its satisfactory functioning.

3. Technical Bid (COVER - A)

The following document should be submitted in cover-A.

- 3.1 Earnest Money Deposit
- 3.2 Technical details of the materials as per **Annexure-V**
- 3.3 Copy of the manufacturing license/ import license/ Authorized Distributor/ Dealer certificates
- 3.4 Copy of the authorization from the Manufacturing Company in case of Authorized Distributor /Dealer in **Annexure-III** along with Manufacturer Industry Registration and Tax Registration Certificate.
- 3.5 VAT/ST/GST clearance certificate up to **date** where applicable.
- 3.6 Performance/ Market standing certificate establishing that the Bidders have executed supply of similar items as mentioned in Schedule of Requirement of hardware and software to different Govt. Organizations/ Government PSUs / reputed Private Institutions.(proof of documents)
- 3.7 Copy of the IT PAN Card.
- 3.8 Detail name, address, telephone no. fax, e-mail of the firm and of the Director/ Managing Director/ Proprietor of the firm (As per **Annexure IV**)

- 3.9 Address, Telephone No., e-mail, Fax of the Branch Office/ Contact Person/ Liaisoning Office in Odisha. (As per **Annexure IV**)
- 3.10 Power of Attorney/ Authorization to a person for liaisoning and monitoring the business on behalf of the manufacturer / bidder but not entitled to raise the bills.
- 3.11 Document if any to establish the recognition of the manufacturing unit in respect of ISO or equivalent.
- 3.12 **The original bid document signed & sealed by authorized person in each page as a token of acceptance of all terms and conditions of the tender with original receipt.**
- 3.13 Documentary evidence establishing that the hardware, software and ancillary services to be supplied by the Bidders shall confirm to the Bidding Document
- 3.14 Any deviation in the specification of the item including standard accessories / optional accessories in complete for functionality of hardware should be marked in **bold letters**.
- 3.15 Details of hardwares, if any, should be provided.
- 3.16 The details of the service station / service associates nearest to Bhubaneswar/Sambalpur shall have to be submitted to qualify in the technical bid.

4. Price Bid (COVER – B)

- 4.1 The hard copy of price bid giving the rates for various instruments & equipment and other items should be submitted along with sealed soft copy of price bid in Excel format through CD/Pen drive both in separate sealed cover hereinafter called Cover B (Price Bid). **Price Bid (Cover - B)** of the bidders who qualify in **Technical Bid (Cover – A)** will only be opened and will be communicated through **E-mail/Fax**.
- 4.2 The price of the each item shall be quoted as per the prescribed Price Schedule Format at **Annexure-I** along with price break up of custom duty, Excise Duty, CST, Packing, Forwarding and Handling charges, Insurance charges, ET, Freight up to destination including unloading, GST, commissioning including testing and training with total price per item at **FOR destination at Burla**. The bidders are required to submit the individual price of each item as indicated in the schedule of requirements.
- 4.3 Each quoted item and all accessories should cover the warranty / guarantee for **2(two)** years from the date of commissioning (**Annexure-II**).

4.4 The **Cover B** of the technically qualifying bidders shall be only opened at the Office of the “**The Registrar, Veer Surendra Sai University of Technology, Burla**” on the date and time to be communicated to them after technical evaluation of **Cover A by E-mail/Fax**.

4.5 The cost of standard accessories shall be included in basic price and optional accessories shall have to be quoted separately.

4.6 The bidders are required to submit the list of the spare parts required for the materials as well as the list of the dealers/ Distributors of the spare parts nearest to Bhubaneswar, Odisha for its availability.

5. BID CONDITIONS

5.1 The quoted rate shall not vary with the quantum of order placed or destination point.

5.2 A copy of the original bid conditions and the schedules should be signed by the bidder at the bottom of each page with the office seal duly affixed and returned along with the bid. Bid schedule should be duly filled in with an **index** and **page number** for the documents, enclosures & EMD etc. **Paging** must be done for all the documents submitted.

5.3 Bids should be type written or Computerized and every correction/ over writing in the bid should invariably be attested with signature of the bidder with date before submission of the bids to the authorities concerned. No revision of price upward or downward will be allowed once the bid is opened. However the purchaser shall have the right for considering the exchange rate of foreign currencies on verification of documents.

5.4 Language of Bid

The Bid prepared by the bidders and all correspondence and document relating to the bid exchanged by the Bidders and the *Purchaser*, shall be written in the English language. Supporting document and printed literature furnished by the Bidders may be written in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Bid, the English translation shall govern.

5.5 Bid Price

- The contract shall be for the full quantity as described above. Corrections, if any, shall be made by crossing out, initialling, dating and re-writing.
- All duties, taxes, and other levies payable on the raw materials and components, job contract shall be included in the total price.
- VAT/GST in connection with the sale shall be shown separately.
- The rates quoted by the bidders shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- The price shall be quoted in Indian Rupees only.

5.6 VAT/ST/GST clearance

Copies of valid VAT/GST clearance Certificates shall be furnished by the Bidders and the originals of the above certificates shall be produced to the purchaser before placement of notification of award if asked for by the Purchaser.

5.7 EMD

All bidders are required to submit EMD **not less than 2% of the quoted amount** in shape of **Demand draft** drawn in favour of **“The Registrar, Veer Surendra Sai University of Technology, Burla” payable at SBI, Burla** only. The EMD shall be in Indian Rupees.

NOTE: 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.

5.8 SUBMISSION OF BIDS

Sealing and Marking of Bids

Bid should be submitted in two Bid system containing two parts as detailed below.

Sealed Cover-A: Technical Bid.

Sealed Cover-B: Price Bid (hardcopy & sealed soft copy in CD/pen drive)

Both the sealed envelopes should then be put in one outer cover and each cover should have the following indication:

- Name of Dept.:_____
- Reference No of Bid _____

- Bid regarding _____
- Due date & time for submission of the Bid _____
- Due date & time for opening of the Bid _____
- Name of the Firm _____

NOTE:

A. Bids submitted without following two Bid system procedures as mentioned above will be summarily rejected.

B. Please Note that **prices should not be indicated in the Technical Bid.** The Prequalification document including EMD as required in the Bid document should invariably be accompanied with the Technical Bid (**Cover A**).

The outer envelope shall indicate the name and address of the bidders to enable the bid to be returned unopened in case it is declared “**late**”. If the cover containing the outer envelope is not sealed and marked as required, **Purchaser** will assume no responsibility for the bid’s misplacement or premature opening.

The above procedure shall be adopted both for the Technical bid and price bid separately.

Telex, cable, email or facsimile bids will be rejected.

5.9 Deadline for Submission of Bids

Bids must be received by the **Purchaser** at the address specified not later than the time and date specified in the Invitation of Bids. In the event of the specified date for the submission of bids being declared a holiday for the **Purchaser**, the bids will be received up to the appointed time on the next working day.

The **Purchaser** may, at its discretion, extend this deadline for submission of bids by amending the bid document, in which case all previous rights and obligations of the purchasers and bidders will remain same till the extended date.

5.10 Modification and Withdrawal of Bids

No Modification and Withdrawal of Bids is allowed between the interval of time of submission and the last date and time of the bids.

No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidders on the bid form.

5.11 **BID OPENING**

5.12 The *Purchaser* will open all bids, in the presence of bidder's representatives who choose to attend at 11.30 A.M. on dated **31.10.2017** at the Office of the **“The Registrar, Veer Surendra Sai University of Technology, Burla”**.

5.13 The bidder's representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for the *Purchaser*, the bids shall be opened at the appointed time and location on the next working day.

5.14 The bidder's names, and the presence or absence of the requisite EMD and such other details as the *Purchaser*, at its discretion, may consider appropriate will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the bidders.

5.15 **Acceptance of the Bid**

- Bidders submitting bids would be considered who have considered and accepted all terms and conditions. No enquiries, verbal or written, shall be entertained in respect of acceptance or rejection of the bid.
- Genuine equipments and softwares etc. should be supplied. Bidders should indicate the source of supply i.e. name and address of the manufacturers from whom the items are to be sourced.
- Supply of equipment means – Installation and Commissioning (except civil works), Demonstration as well as Training at site. **No separate charges will be paid on this account.**

5.16 **Rejection of the Bid**

The Bid document shall be out-rightly rejected under following stipulation and no correspondence will be entertained whatsoever.

- If the Bidders has not furnished the required **Tender paper cost** and **EMD** or EMD exemption certificate from competent authority.
- If the Bidders has not submitted the Price as per the prescribed format **Annexure-I**

- **Manufacturing Authorization Annexure-III and in case of Authorized Distributor / Dealer/Suppliers have to submit Manufacture authorization along with copy of above documents of Manufacture Industry.**
- If the bid is not supplemented with breakup of standard accessories / Optional accessories & cost of AMC separately for three years after completion of warranty period **(In case of major machinery only)**.
- Photo copy of the up-to-date valid manufacturing license/ import license (if it is imported) /dealership certificate/Distributor certificate of the product along with Tax registration Certificate of Manufacturer issued from competent authority.
- If the bidders, whether manufacturer or authorized distributor/ dealer have not supplied the required quantity for qualification as per the eligibility criteria and not submitted the performance statement at **Annexure-IV with supporting documents**.
- If the bidder has not furnished technical details of the hardwares with **one make & model** as per **Annexure-V**.
- **If bidder will quote items of more than one make/model.**
- If the bidders have not agreed to give **bid validity**.

5.17 **Purchaser's Right to Accept any Bid and to Reject any Bid**

The Purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all the bids without assigning any reason thereof at any time prior to award of Contract, without thereby incurring any liability to the affected Bidders or Bidders on the grounds of such action of the purchaser. In case no bidder qualifies as per qualifying criteria and standards, purchaser may at his discretion relax qualification criteria for award of contract.

5.18 **Evaluation and Comparison of Bids**

The comparison shall be of **FOR destination** price basis including the price of all costs wherever applicable as well as duties and taxes (**but excluding VAT/GST**) paid or payable on Machineries, instruments & equipment incorporated or to be incorporated in the items including the warrantee/guarantee period from the date of installation.

- The Purchaser's evaluation of a bid will take into account, in addition to the bid price and the price of incidental services.

- The purpose of bid evaluation is to determine substantially responsive bid with the lowest evaluated cost, but not necessarily the lowest submitted price, which should be recommended for award.
- Evaluation of bids should be made strictly in terms of the provisions in the bid document to ensure compliance with the commercial and technical aspects.
- The past performance of the suppliers will be taken into account while evaluating the bids.
- Cost of the inland transportation, insurance and other costs within the Purchaser's Country incidental to delivery of the goods to their final destination.
- Delivery schedule offered in the bid.
- Deviations in payment schedule from that specified in the General Terms & Conditions of Contract.
- The availability in the Purchaser's country of spare parts and after-sales services for the goods offered in the bid.
- The projected operating and maintenance costs during the life of the equipment/ goods. The performance and productivity of the equipment/ goods offered.
- The performance and productivity of the equipment/ goods offered.
- The quality and adaptability of the equipment/ goods offered.
- Any other point as deemed proper to be incorporated by the evaluation committee.
- **Alternative options of offer shall not be allowed.**
- Each Bidder shall submit only one quotation with one make & model. The quotation would be evaluated separately for each item
- Sales Tax in connection with sale of goods shall not be taken into account in evaluation.
- Negotiation shall be made with the lowest evaluated bidder.
- Lowest evaluated price shall be taken in to consideration, but not the lowest quoted price.
- Willingness to provide operational Training to one Official of each consignee at consignee site for at least **7 days whichever is suitable to Purchaser.**

6.0 Supply Conditions

6.1 Delivery of Goods

The delivery of goods shall be made by the supplier to the Consignee in accordance to the order placed as shall be detailed in the Schedule of requirements & technical specifications.

6.2 Instruments, Equipment Demonstration cum Inspection

Purchaser reserves the right to ask for demonstration cum inspection of the equipment where ever applicable.

6.3 Inspection/ Test/Training

The supplier shall get each equipment inspected in manufacturer's works and submit a test certificate (New & Unused) and also guarantee/warranty certificate that the equipment confirms to laid down specifications.

The supplier shall invite the purchaser for pre-dispatch inspection. The Purchaser or his representative shall have the right to inspect/ examine/ test the goods in conformity with the contract awarded/supply order during the production or before dispatch from the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the equipment on receipt at destination.

The inspection/examination/ test may be conducted in the premises of the Supplier or at the goods final destination or at the premises of the consignee, as will be decided by the Purchaser.

The purchaser's right to inspect/ examine/test & where necessary to reject the instruments after the arrival of the goods at the final destination, shall in no way be limited or waived by the reason of the goods having been inspected and tested by the manufacturer previously. In case of rejection of the goods at the final destination after inspection and test as stipulated above and in case any inspected/ tested goods fail to confirm to the specification/ working condition, the purchaser may reject them and the supplier shall replace/ repair the same free of cost.

6.4 Warrantee Period (comprehensive)

The Bidders must quote for a minimum period of **2 (Two) years** of comprehensive **warranty** from the date of completion of the satisfactory commissioning as per (**Annexure-II**). This also includes all accessories related to instruments & equipment quoted for.

6.5 Up time Warrantee

The Bidders should provide uptime guarantee of 95%.

6.6 Downtime Penalty Clause

During the warranty period, desired uptime of 95% of 365 days (24 hours) if downtime exceeds 5%, penalty in the form of extended warranty, double the number of days or more will be applied for which the equipment goes out of service.

In no case the machineries should remain in non-working condition for more than 30 days beyond which a penalty of 0.2% of machine cost will be charged per day.

6.7 Payment Terms

No advance payment will be made by the Purchaser to the supplier for performance of the contract. 100% of the contract price shall be paid within 30 (thirty) days after satisfactory supply, installation, demonstration, Commissioning & training at VSSUT and stock entry of bills of the goods within due date of delivery.

6.8 Transportation

The Supplier shall be required to meet all transport and storage expenses until commissioning of the instrument(s) / equipment covered in the contract.

6.9 Taxes and Duties

The Supplier shall be entirely responsible for payment of all Taxes, Duties etc. incurred until delivery of the contract goods to the Consignee subject to recovery afterwards in the bill as claimed in the Bid offer.

GST as applicable is payable, to the suppliers of the State of Odisha if claimed in the Bid offer.

GST will be paid to the Suppliers of the outside State other than Odisha, if claimed in the Bid offer. Any revision of GST shall automatically be taken into account.

Entry Tax, if paid by the Supplier, at the local (destination head) Corporation/ Municipality/ NAC is allowed once only on production of money receipt for such payment, if claimed in the Bid offer. Any other statutory levy imposed by the Govt. of India/ Govt. of Odisha from time to time will be considered extra on demand with adequate proof thereof The service tax and the work contract tax shall be levied (Wherever applicable). Income Tax as applicable shall be deducted at source.

6.10 Incidental Services

The Supplier shall be required to provide any or all of the following services: (The cost should be included in the quoted Price)

- Furnishing of detailed literature/pamphlets/ circuit diagram/ operation & maintenance manual / drawings (as applicable) for each appropriate unit of supplied goods.
- Furnishing of tools required for assembly and / or maintenance of the supplied goods.
- Performance or supervision of on-site assembly and the supplied goods.
- Performance or supervision or maintenance and/ or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty/ guarantee obligations under the contract.
- Training of the Purchaser's personnel at the Supplier's plant and / or on site, in assembly, start up, operation, maintenance and/ or repair of the supplied goods is Mandatory** .A maintenance contract for the goods supplied, if required by the user beyond the warranty period shall be on mutually agreed upon terms between the user and supplier. The cost of such maintenance contract shall not be included in the Bid cost.

6.11 Period of Validity of Bids

- The bid rates should be kept open/ valid for a period of **180** days from the date the Bids are opened.
- A bid valid for a shorter period i.e. less than **180** days shall be rejected, as nonresponsive. In absence of any indication of the date of validity in the bid, it will be presumed that the offer will remain valid for the minimum period i.e. **180** days as prescribed above.
- In exceptional circumstances the purchaser may solicit the bidders consent for extension of the period of validity. If agreed upon, the bid security so deposited shall also be suitably extended.

6.12 Commissioning Period

Maximum commissioning period is **30 days** from the date of supply OR **120 days from the date of issue of Purchase Order** failing which the purchaser will have the right to impose penalty for the delay period @ **0.5% per week of the contract value of item/items excluding taxes from the bill amount subject to maximum of 10%**. However, Registrar has right to extend the delivery period/commissioning period in special cases.

6.13 Penalty against Non Supply

In case of non-supply of Stores within the due date i.e. within the date of delivery the EMD deposited by the bidder shall be forfeited.

6.14 Rejected items

No payment shall be made for rejected supplied items. Rejected items must be removed by the bidder within two weeks of the date of rejection at their own cost and replace immediately. In case these are not removed these will be auctioned by the purchaser (at the risk of the supplier) without any further notice.

6.15 Annual Maintenance Contract

The cost of annual maintenance contract for next three years after warranty period shall be submitted as per the **Annexure I (b)**. The after sales service during and after warranty/ guarantee period should be available from companies own engineers.

6.16 Jurisdiction of the Court

The purchaser and supplier shall agree that the competent court at Sambalpur shall have the jurisdiction to try and decide anything between the parties and they may approach the Competent Court at Sambalpur if required at any time.

REGISTRAR

VSSUT, Burla

ANNEXURE-I (a)

PRICE SCHEDULE (ITEM WISE) -A

Item Serial No	Item Description	Country of origin with Make & model	Qua ntity & Unit									
				Exwarehouse/ Ex-showroom/ Off-the-shelf (a)	Excise duty/Consum duty, if any (b)	Packin g & Forwa rding (c)	Inland transportatio n, insurance and other local csts incidental to delivery (d)	CST/ Entry tax, if any (e)	Unit price (a+b +c+d +e)	V A T/ G S T (f)	Any other	Total Price (a+b+c+d+e+f)

ANNEXURE-I (b)

PRICE SCHEDULE (ITEM WISE) - B

PRICE SCHEDULE FOR ANNUAL MAINTANCE CONTRACT AFTER COMPLETION OF WARRANTY PERIOD.

Sl.No	Brief description of Goods Total annual	Quantity in nos.				Annual Maintenance Contract cost 3 years i.e. 3x (4a+4b+4c)	
			4				
1	2	3	1st yr.	2nd yr.	3rd yr.	5	
			(a)	(b)	(c)		

** After Completion of warranty period

Note:-

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.
2. The cost of Annual Maintenance Contract (AMC) which includes preventive maintenance including testing & calibration as per technical/ service/ operational manual, labour and spares, after satisfactory completion of warranty period may be quoted for next 3 years on yearly basis for complete equipment and turnkey (if any).
3. The cost of AMC may be quoted along with taxes applicable on the date of bid opening. The taxes to be paid extra, to be specifically stated. In absence of any such stipulation the price will be taken inclusive of such taxes and no claim for the same will be entertained later.

4. Cost of AMC will not be added for Ranking/Evaluation purpose. However, the cost of AMC for lowest evaluated bidder is subject to negotiation.
5. The payment of AMC will be made as per payment terms of the bid document.
6. The uptime warranty and down time penalty shall be as per the bid document.
7. All software update should be provided free of cost during AMC period.
8. The stipulations in Technical Specification will supersede above provisions.
9. The supplier shall keep sufficient stock of spares require during Annual Comprehensive Maintenance Contract period. In case the spares are required to be imported, it would be the responsibility of the supplier to import and get them custom cleared and pay all necessary duties.

Place:

Date:

Signature of Bidder

Business Address

Seal of the Bidder

ANNEXURE - II

WARRANTY MAINTENANCE CONTRACT AGREEMENT.

THIS AGREEMENT made the.....day of, 20__ between the “**The Registrar, Veer Surendra Sai University of Technology, Burla**” (hereinafter "the Purchaser") of the one part and M/s..... (here in after called "the Supplier") of the other part:

WHEREAS the Purchaser invited bids for certain Goods & ancillary services viz, supply and commissioning of the instruments & equipment at Bhubaneswar including Comprehensive Warranty Maintenance Services and has accepted a bid by the Supplier for the instruments & equipment specified below at the Consignee site including Comprehensive Warranty maintenance Services for a period of 2 (Two) year from the date of installation & commissioning of the instruments & equipment as per award of Contract No..... Dated

Name of the Equipment & machineries Qty

(To be filled in as per details of goods in the award of Contract)

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. Maintenance Services shall consist of Preventive and Corrective maintenance of equipment specified above & will include repair and replacement of parts free of cost.
2. Preventive maintenance, monthly once, which includes:
 - 2.1 Check-up to ensure that device connection is proper, cabling is at proper condition etc.
 - 2.2 Cleaning of the above instruments & equipments and checking the System Performance.
3. The Supplier is to furnish the tentative schedule of the preventive maintenance of Warranty Maintenance Contract (WMC) to be carried out.
- 4 The parts replaced must be new parts or equivalent in performance to new parts.
5. The Supplier will also provide the same maintenance service in case of the movement of equipment from the place of original installation to a different place or location, if the equipment is shifted by the Purchaser to another place or location at the cost and risk of the purchaser.
6. Any complaint informed through telephone must be acknowledged with a Complaint No. by the Supplier which will be noted by Consignee. All further contact with the Supplier on such complaint will be initiated through that Complaint No. Once rectification done, that No. will be cancelled by both parties. A register is to be maintained by the Supplier where complaints are to be noted along with Complaint No.
7. The maintenance shall normally be done at the earliest.
8. The Service Engineer of the Supplier will be allowed to handle the respective plant & machineries only in presence of the officer in charge at the Consignee site.
9. The Supplier should ensure that maintenance job is not hampered/delayed due to paucity of spares/inadequate manpower etc.

10. The Supplier should submit the services call report, to the Consignee for each and every service call without fail.
11. The Supplier evaluation data format for the WMC of Consignee systems may be filled up for necessary action.
12. All formats after filled up should be signed at the end of each page by the Supplier.
13. After completion of the work/repair/maintenance, the Purchaser shall issue a certificate of completion to the supplier to that effect.

Signature

Signature

For the Purchaser

For the Supplier

Name:

Name:

Designation:

Designation:

Address:

Address:

Telephone No:

Telephone No:

ANNEXURE-III

MANUFACTURES' AUTHORISATION FORM

No. _____ / Date _____ /

To

The Registrar,
VSSUT Odisha
Burla, Sambalpur.

Dear Sir, Bid No. _____

We _____ who are established and reputable manufacturers of _____ having factories at _____ (Address of Factory) do thereby authorize M/s. _____ (Name and address of Agent) to submit a bid and sign the contract with you against the above bid.

* No company or firm or individual other than M/s. _____ are authorized to bid and conclude the contract in regard to this business against this specific invitation for bid.

We hereby extend our full guaranty and warranty as per general conditions of contract for the goods and services offered by the above firm against this bid.

Yours faithfully,
(Signature for and on behalf of Manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person, competent and having the power of attorney to bind the manufacturer. It should be included original by the Bidders in its bid.

- This para should be deleted for simple items where manufacturers sell the product through different stockiest.
- The Supplier/Managing Director of the Company (if the supplier is a Company) or the Power of Attorney Holder having specific power to sign the contract can only sign the contract/execute the agreement.

ANNEXURE-IV

DETAILS OF THE BIDDERS

Bid Reference No.

Name and address of the Bidder:

01 Name of the bidder

- a) Full postal address
- b) Full address of the premises
- c) Telegraphic address
- d) Telephone number
- e) Fax number
- f) E mail:
- g) PAN No
- h) TIN No

02 Total annual turn-over (value in Rupees)

03 Quality control arrangement details

04 Test certificate held

- a) Type test
- b) BIS/ISO certification
- c) Any other

05 Details of staff

- a) Technical
- b) Skilled
- c) Unskilled

06 Branch Office/ Contact Person/ Liaisoning Office in Odisha.

- a) Address
- b) Telephone No.
- c) e-mail,
- d) Fax

Signature and seal of the Bidder

ANNEXURE-V

Technical details of the materials to be supplied by the bidder

Bid SI No. of the item	Tender specification	Bidders Specification with make and model no (Enclose manufactures catalogue / brochure for each item)	Deviation if any With university specification

Signature and seal of the Bidder

DETAILS SPECIFICATION OF SOFTWARE/ EQUIPMENT

Sl. No.	Name of the Software/ Equipment	Specification	Quantity
1	Real Time Digital Simulator	A modular, scalable & MATLAB based Real Time Digital Simulator for Power System + Power Electronics + Controls & Electric Drives Applications of EE & EEE Dept. With following Hardware & Software Features	One

Specifications of Real Time Digital Simulator.

This tender document & hence requirement is about procurement of a Real time Digital Simulator or a HIL system which will be integrated with various controllers. We require state-of-the-art Hardware-in-Loop Simulation Systems (HILS Systems) for testing and integrating various electrical systems such as the integrated renewable energy, Energy Storage, DER's and other smart grid systems, using functional dynamic models with the actual hardware to develop and study solutions suitable for the next generation electrical systems. Recognizing that the HIL simulator is needed for the long-term, with multiple projects and programme objectives, Supplier should provide modular hardware architecture:

Scalable Processing – multi-core/multi-processor/FPGA configurations to meet real-time model computation requirements. A basic single core configuration can be used for simple models and expanded to multiple cores as computational needs increase with the use of more complex models for higher simulation fidelity.

Expandable I/O and Signal Conditioning – the I/O chassis should support multiple FPGA I/O modules as well as third-party boards. Supplier should provide several modules of I/Os, any Change or increase in I/O requirements should be accommodated by replacing/adding modules and cards at any point of time. Since projects will be running for multiple years, scope of adding or removing the I/O module should be available.

Commercial RTOS used should support wide range of software tools to run in real time environment. This capability will be critical for our projects which will be using the in house developed Simulink Models, Certified C Code, FORTRAN and third party tools like AMESim, Dymola etc...

It should support tools like Python, LabView, TestStand, Altia, PROVETech etc.. This will help VSSUT to achieve complete testing of hardware for the various conditions.

Vendor should supply an OPEN but fully integrated solution, HIL system should have high degree of FLEXIBILITY to meet a variety of testing objectives.

Simulator Capabilities:

- The simulator should be a Pure Development System & not a Run Time System.
- The simulator should be fully compatible with Simscape, Sim Power System Libraries of MATLAB & Simulink
- Simulator should be able to simulate either a Grid or a Motor or Drive or Power Electronic Component or a Power System Network in Real Time.

- Simulator should be capable of simulating a Power System network of up to 50 three phase Buses in Real time.
- Simulator should be capable of simulating up to 72 Power Electronic Switches on FPGA in Real time.
- Simulator should simulate a Power System Network at a time step of 50 μ s
- Simulator should be able to generate pulses up to a few 100 KHz
- Simulator should be capable of simulating Power Converters at High switching frequency of up to 50 kHz and low time steps of up to 250 nanoseconds.
- Simulator should Perform HIL applications in Real Time (Hardware in Loop)
- Simulator should Perform RCP applications in Real Time (Rapid Control Prototyping)
- Simulator should Perform SIL applications in Real Time (Software in Loop)

Simulator Modelling Environment:

- Modelling environment should be based on MATLAB/Simulink/SimPowerSystems since VSSUT intends to use this offline simulation software which are already available in VSSUT
- Modelling Environment Should aid development of custom logic & algorithms used in advanced control schemes (e.g., C s-function).
- Modelling Environment should be an Integrated Development Environment where in Host software licenses across the lab allowing users to run simulations on a windows target in non-real time mode.
- Software should generate PWM pulses independent of simulation clock.
- FPGA programming environment interface, which can be used for faster converter simulation, must be available
- Provision to perform load flow studies should be available
- Ability to edit parameters of the system during real time execution.
- Automatic Core Allocation in cases of Multi-core simulation which will help us in minimizing time and effort to allocate cores manually should be available.
- Models must be provided for easy learning of engineers in the field of Drives and Power Electronics compatible to Sim Power Systems to get started with basic examples.
- Feature should be available to simulate micro-grids with distributed energy resources such as wind, solar PV etc.
- Provision to simulate distribution system should be available
- Feature to study smart grid systems should be available.
- Should support communication protocol like IEC 61850, C37.118
- Feature to display the time variations of any signal of interest.
- Capability of a minimum multiple drives and detailed inverter models at a time step of 50 microseconds on CPU and 500ns on FPGA.
- Ability to simulate PMSM drives in 250 ns (end-to-end) (useful feature for drives applications).
- Should have specialized solvers for Drives and Power electronics
- Should have provision for scripting language (e.g. Python).
- Modelling environment for Power Electronics, Drives and Control Systems is preferred to be compatible with MATLAB environment due to extensive usage of the same.
- Ability to take care of multiple events happening in between time steps.
- Ability to perform real time simulation of power electronics converters up to a switching frequency of 100 kHz.
- Ability to simulate at least 3-level converter with a switching frequency of 100 kHz.
- Model based FPGA Programing environment interface should be available.

- It should be capable to simulate high fidelity model of power converters
- It Should have the capability for FPGA-based simulation environment of power electronics systems using Graphical Circuit Editor like SimPowerSystems, PLECS, PSIM, PSPICE eliminating VHDL coding or XSG programming.
- Software environment should have ability to create automated test scripts in languages such as Python.

I. **Hardware Specifications:**

- Hardware architecture should be modular in nature to allow future expansion.
- Simulator Hardware should support communication protocol like IEC61850, C37.118 for smart grid applications
- **Simulator Chassis** should be rack mountable. It should have minimum specifications given below
 - a. Powerful target computer – 2.3 Ghz or so with Multi Core Processor- Minimum Quad core.
 - b. Should have at least one FPGA-Virtex 7
 - c. Minimum supported speed 3.0Ghz
 - d. Supported SDD, Minimum 512GB
 - e. Supported DDR RAM, minimum 16GB
 - f. Should have PCIe slots to support third party cards/custom made cards
 - g. Should have SFP Ports 1 to 5Gbps, duplex multi-mode optical fiber 50/125 μm with support for Xilinx®
 - h. Should have the integrated patch panels to monitor signals without disturbing I/O connections
 - i. Integrated Patch panel for monitoring signal in Real Time without disturbing I/O Connection
 - j. FPGA based I/O cards should be available to minimize latency in ADC, DAC, DI, and DO.
 - k. It should support both Analog & Digital I/O's.
 - l. Minimum count of I/O for the simulator must be 16ADC, 16DAC, 32DI, 32DO.
 - m. User programmable FPGA must be available on the simulator to do fast power electronics simulations.
- **Analog Output card (16 channels, 16 bits, 1us, $\pm 16\text{ V}$)**
 - a. One card with 16 channels of independent 16-bit DACs, 1.0 us settling time/channel, simultaneous conversion controlled by on-board FPGA
 - b. Output buffer amplifiers with maximum output voltage range adjustable from $\pm 100\text{ mV}$ to $\pm 20\text{ V}$ ($\pm 16\text{ V}$ standard) to keep the full 16-bit resolution
 - c. Capability to control the conversion time of each channel by the FPGA
 - d. Capability to convert analog signal between the base simulator time step to implement special models and signal processing functions with time step of 1 us
 - e. Gain and offset calibration factor adjustable by software
 - f. Short-circuit protection at 10 mA.
- **Analog input card (16 channels, 16 bits, 2.5 us, $\pm 20\text{ V}$)**
 - a. Cards with minimum 16 differential channels with independent 16 bit ADCs, 2.5 us conversion time, simultaneous conversion, controlled by on-board FPGA

- b. Capability to convert analog signal between the base simulator time steps to implement special models and signal processing functions with time step of 2.5 us depending on A/D converter speed selected
 - c. Gain and offset calibration factor adjustable by software
 - d. The same card should be capable of reading 6 resolver signals from the device/controller.
- **Digital input card (32 channels, optocouplers, 4.5 V to 50 V)**
 - a. Digital input module should be versatile and provide digital input signal with specific voltage conditioning. It should support for the voltage isolation.
 - b. All channels should be sampled simultaneously for better accuracy.
 - c. It should take real life TTL or differential level signals.
 - d. 32 independent channels per module/card
 - e. Current input from 2 mA to 6 mA
 - f. Input current protection by a resettable solid-state fuse
 - g. Input voltage adjustable from 4.5 V to 50 V
 - h. Optical-isolation on all channels is necessary
 - i. Short-circuit protection at 100 mA
 - j. Software configurable PWM input on the same card for a frequency of 100 Khz (minimum) and upto 10 channels of encoder at the same time.
- **Digital output card (FET, 5 V to 30 V, 200 ns to 65 ns)**
 - a. Digital Output module should be versatile and should provide digital output signal with specific voltage conditioning.
 - b. It should support for the voltage isolation.
 - c. All output channels should be sampled simultaneously for better accuracy.
 - d. It should interface with real life TTL or differential level signals.
 - e. 32 independent push-pull channels per module/card
 - f. All outputs should accept voltage of 5 to 30V and the output current up to $\pm 50\text{mA}$ per channel
 - g. All outputs are generated simultaneously with a maximum transition delay of 50ns
 - h. Short-circuit protected by auto-resettable fuse
 - i. Software configurable PWM output on the same card for a frequency of 100 Khz (minimum) and upto 10 channels of encoder at the same time.
- **HIL Interface Box.**
 - a. Number of Current Channels- 8
 - b. Number of Voltage Channels- 8
 - c. I/O Connector, DB37, 4mm Isolated banana jacks
 - d. Current Sensor: Input range: 15A
Signal Output Range: $\pm 10\text{V}$

Isolation: Galvanic

Bandwidth: DC to 100Khz
 - e. Voltage Sensor: Input range: Up to 600 V
Signal Output: $\pm 10\text{V}$

Bandwidth: DC to 100Khz

With complete Cables Included

II. Requisite Software for the above Simulator Hardware

- a. RT Lab host license: To edit network schematic and Design MATLAB Based Models in off-line simulation mode
- b. RT Lab target license: Core licenses to execute the MATLAB Based models on real time simulator
- c. Artemis Solver: Real Time Solver for Power System Applications
- d. ehs-64 Solver: Real Time Power Electronic Solver for FPGA simulation capability to allow sub micro-second simulation of converters, Inverters & Other Power Electronic Devices.
- e. RTE Drive Blockset Solver: Real Time Solver for Electric Drives Applications
- f. RT Events Blockset Solver Real time Solver for Real Time Execution of Models
- g. Red Hat Linux OS with Real Time Kernel & Intel Compiler: Operating System for Real Time data processing

III. Communication Protocols implemented on the above Simulator Hardware

- a. C37.118 master (RECEIVE) - 16 PMU streams for PMU Communications
- b. C37.118 slave (SEND) - 16 PMU streams for PMU Communications
- c. Driver IEC 61850-8-1 GOOSE for protection relay interface
- d. Driver IEC 61850-9-2 Sampled Values for protection relay interface
- e. "Time synchronization kit - Oregano Syn1588 PCIe NIC, clock precise, RJ45, Supports IRIG-B, 1PPS, IEEE1588"
- f. Intel EXPI9404PTL PT Quad Port Ethernet Server Adapter 10/100/1000 Mbps PCI-Express 4 x RJ45