VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY:



BURLA

P.O: Engineering College Burla (Siddhi Vihar), Dist: Sambalpur Odisha- 768018, India

Website: www.vssut.ac.in, E-mail: registrar@vssut.ac.in, Ph:(0663)2430573, Fax-2430592

No: VSSUT/EEE/915 /2022

Date: 12 / 12/2022

TENDER CALL NOTICE

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 intending reputed, registered and experienced firms for Supply, Installation, Commissioning and Maintenance of equipment(s) for the procurement of different items related to "Measurement Lab.", Department of Electrical & Electronics Engineering (EEE), VSSUT Burla, Odisha. The sealed quotations shall reach the undersigned by regd. / speed post / Courier services within the office hour by 4.00 P.M. of date 19.01.2023. Tender received beyond this date & time is shall be rejected. "Tender for Electrical & Electronics Engg. Deptt. for supply of Equipment(s)" must be super scribed on the sealed envelope. The details of the equipment/ firmware/Software and their technical specifications are mentioned as below.

Details of the Equipment/Firmware

| Sl.No | Name of the Equipment/Firmware /Experiment | Specification | Quantity (No. of units) |
|-------|--|--|-------------------------|
| 1. | Linear Variable Differential Transformer Unit Experiment to be performed: To plot the displacement- voltage characteristics of the LVDT. | • Range: ±10mm • Resolution: 0.1 mm • A mechanical arrangement along with a Micrometer /Dial Gauge connected with LVDT • Built-in 3½ digit DVM / built-in 16X2 line LCD display for measurement of measured | Two unit |



| | | Signal conditioning circuit with zero and span adjustment for calibration 220V±10%, 50Hz mains operation Built in regulated power supply. Test points should be provided on the kit to measure/observe the signals. Suitable sized interconnection cables; Patch cords | |
|---|--|--|----------|
| 2 | Synchro Devices Experiment to be performed: Study of Synchro- transmitter & synchro transformer. | Synchro transmitter-receiver pair with calibrated dials Panel meter for ac voltages All internal power from the 220 V/50 Hz mains | One unit |
| 3 | Temperature Sensing Trainer kit with Standalone mode as well as in PC based mode based analysis feature Experiment to be performed: Study and plot the characteristics of different temperature sensors/ transducers namely RTD, Thermistor and Thermocouples and its calibration with soft temperature sensors using LM 34/35 or AD 220. | System should consist of Master unit, experimentation Panel and Computer Interface Module Master Unit Specifications: Built in power supply, Built in function generator: O/P waveformsine, triangular & square, TTL O/P freq. 1Hz to 200KHz in ranges with amplitude & freq. control; pots, o/p voltage 10Vpp. On board measurement: DC voltmeter 2V/20V Temperature Sensing Transducers Experimentation Panel Specifications: Instrumentation Amplifier to amplify thermocouple signals Built in heat bar / mini oven driven by Power Amplifier of sufficient wattage Temp. selection up to 95° C in 5 ranges with ON / OFF closed loop control. Different Temperature sensors: i. Thermocouple J with room temp. calibration pot. ii. Thermocouple K with room temp. | Two unit |



| | | calibration pot. iii. Thermistor (100K Ohm), iv. RTD PT100, v. IC sensor (LM 34/35 or AD 220 or equivalent) vi. Bimetallic switch ★ Computer interface DAQ card programmable with LabVIEW: ✓ DAQ USB Device; | |
|---|---|---|----------|
| | | ✓ DAQ consist of 08 Single ended or 04 Differential Analog Input Channel with 16 bit resolution and 50 kS/s sampling rate input ±10 V, ✓ 02 Analog Output channels with 16 Bit resolution 5 kS/s simultaneous per channel update rate in the rage of ±10 V, ✓ 13 Digital Input/Output line. ✓ A 32-bit Counter Software: One Application Software to run | |
| | | the experiments in PC_BASED-Mode. | |
| 4 | Smart Data Acquisition and Control Setup with Sensor and Actuator Experiment to be performed: Study the role of various sensors and actuators in measuring physical / electrical parameters or variables and able to distinguish between conventional and smart sensors. | The features of system are: > 10 analog inputs, 6 analog outputs, 40 digital I/O lines > Wireless, LEDs, push button, accelerometer onboard > Xilinx FPGA and dual-core ARM Cortex-A9 processor > Programmable with LabVIEW or C; adaptable for different programming levels Kit to include: | One unit |
| | | ✓ 3-axis accelerometer ✓ Ambient light sensor ✓ 3-axis compass ✓ 3-axis digital gyroscope ✓ H-bridge driver with feedback inputs ✓ Ultrasonic range finder ✓ Infrared proximity sensor : 0 cm to 80 cm ✓ GWS Servo : S03TXF STD ✓ GWS Servo : Continuous rotation S35 | |



| | motor Motor Adapter Compatible with Pmod Cable kith Pmod Cable Kith MTE Cable : 4 6-pin Headers changer (5-pact 2x6-pin Header pack) | ith gear motors and servos it: 6", 6-pin Pmod cable it: 6", 12-pin Pmod cable l-pin to 2x2-pin MTE cable : 6-pin header and gender | | | | |
|---|---|--|----------|--|--|--|
| 5 Integrated PC based Test Bench consisting of | Parameter | Specifications | Two unit | | | |
| Oscilloscope, Logic | Oscilloscope | | | | | |
| Channels, Arbitrary | Bandwidth | 100MHz or more | | | | |
| Function Generator, FFT | No. of analog | Minimum 2 | | | | |
| based Spectrum Analyser | channels | | | | | |
| and Protocol Analyser. | Rise Time | 3.5ns or less | | | | |
| | Vertical | 8 bits or more and | | | | |
| | Resolution and | Enhanced Resolution 12 | | | | |
| | Enhanced Resolution | bits or more | | | | |
| | Memory | 100MS on botton (should | | | | |
| | Wiemory | 100MS or better (shared in operational channels) | | | | |
| | Sampling Rate | 1GS/s or better | | | | |
| T . | (real time) | 1 GS/3 Of Setter | | | | |
| 1 | Max. | 80000 or more | | | | |
| | waveforms/sec | | | | | |
| | Vertical | 4mV/div to 4V/div or | | | | |
| _ | Sensitivity | in valve i valve | | | | |
| 1 | Logic Analyser | * | | | | |
| 1 | | No of input 16 or more | | | | |
| | channels | | | | | |
| | Max input | 100MHz or more | | | | |
| | frequency | | | | | |
| | Input Dynamic | +/- 20V | | | | |
| | Range | | | | | |
| 63 | Over voltage | +/- 50 V | | | | |
| 2 | protection | | | | | |
| | Input Slew Rate | 8 | | | | |
| | | (minimum) | | | | |
| | Trigger Sources | Ch 1 or 2 or any MSO | | | | |



| | Channel |
|------------------|--|
| Function Genera | itor |
| Standard Output | Sine, Square, Triangle, |
| Signals | DC Voltage, Ramp, |
| | Sinc, Gaussian, half sinc |
| | and more |
| Pseudo Random | PRBS, White Noise |
| Signal | DC to 1MHz |
| Frequency | |
| Frequency | 0.01 Hz or less |
| Resolution | Or robb |
| AWG | 1MHz or better |
| Bandwidth | The or better |
| Spectrum Analys | ser |
| Frequency | DC to 100MHz |
| Range | _ C TO TOOMINE |
| Display Mode | Magnitude, Average, |
| | Pak Hold |
| FFT Points | Maximum up to |
| | 1048576 points |
| Protocol Analyse | or |
| Supported | 1-Wire, ARINC 429, |
| Protocols | CAN, CAN FD, DALI, |
| 2 2010 0015 | DCC, DMX512, |
| | FlexRay, Ethernet |
| | 10Base-T, USB 1.1, |
| | I ² C, I ² S, LIN, |
| | |
| | Manchester, MODBUS, PS/2, SPI, SENT, |
| | UART/RS-232 |
| General | UAI(1/K3-232 |
| Software | Chauld annual |
| Software | Should support |
| | Windows 7, 8 and 10 and Linux |
| Control Unit | |
| Condoi Onii | Intel Core i3 processor |
| | or better, 4GB RAM or |
| | better, should be loaded |
| no o | with the software |
| PC Connectivity | USB 2.0 and 3.0/3.1 |
| | compatible |
| Display | 14 inch LCD or better |
| Power | USB Powered |
| Warranty | 03 years or more |
| Accessories | Switchable Probes 10:1 |



| | | | Pack of Logic Cables, USB Cable | |
|---|--|--|------------------------------------|---------|
| 6 | | Parameter | Specifications | Two uni |
| | Integrated PC based Test | Oscilloscope | | |
| | Bench consisting of | Bandwidth | 100MHz or more | |
| | Oscilloscope, Logic | No. of analog | Minimum 2 | |
| | Channels, Arbitrary | channels | | |
| | Function Generator, FFT | Rise Time | 3.5ns or less | |
| | based Spectrum Analyser | Vertical | 8 bits or more and | |
| | | Resolution and | Enhanced Resolution 12 | |
| | and Protocol Analyser along with differential probe. | Enhanced | bits or more | |
| | | Resolution | | |
| | | Memory | 100MS or better (shared | |
| | | | in operational channels) | |
| | | Sampling Rate | 1GS/s or better | |
| | | (real time) | 20000 | |
| | 4 | Max. | 80000 or more | |
| | | waveforms/sec | 4mV/div to 4V/div or | |
| | | Vertical | better | |
| | | Sensitivity Logic Analyser | 373333333333 | |
| | | No of input | 16 or more | |
| | | channels | 10 of more | |
| | | Max input | 100MHz or more | |
| | | frequency | 10011112 01 111010 | |
| | | Input Dynamic | +/- 20V | |
| | | Range | 5 50.007 | |
| | | Over voltage | +/- 50 V | |
| | | protection | | |
| | | Input Slew | 10V/us or better | |
| | | Rate | (minimum) | |
| | | Trigger | Ch 1 or 2 or any MSO | |
| | | Sources | Channel | |
| | | Function Gener | | |
| | | Standard | Sine, Square, Triangle, | |
| | | Output Signals | DC Voltage, Ramp, Sinc, | |
| | | | Gaussian, half sine and | |
| | | D. J. | more PRBS, White Noise | |
| | | Pseudo Random | rads, while hoise | |
| | | - Character Control of the Control o | DC to 1MHz | |
| | | Signal | DC to IMILE | |
| | | Frequency | 0.01 Hz or less | |
| | | Frequency Resolution | 0.01 112 01 1033 | |
| | 1 | AWG | 1MHz or better | |



| T | T 1 | |
|---------------------------|--------------------------------------|-----|
| Bandwidth | | |
| Spectrum Anal | | |
| Frequency | DC to 100MHz | |
| Range | | |
| Display Mode | Magnitude, Average, Pak | |
| nnm n . | Hold | |
| FFT Points | Maximum up to 1048576 points | |
| Protocol Analy | | |
| Supported | 1-Wire, ARINC 429, | |
| Protocols | CAN, CAN FD, DALI, | |
| 110100010 | DCC, DMX512, | |
| | FlexRay, Ethernet | |
| | 10Base-T, USB 1.1, I ² C, | |
| | I ² S, LIN, Manchester, | |
| | MODBUS, PS/2, SPI, | |
| | SENT, UART/RS-232 | |
| General | | - 1 |
| Software | Should support Windows | |
| S 277.988529.VXX33440.984 | 7, 8 and 10 and Linux | |
| Control Unit | Intel Core i3 processor or | |
| | better, 4GB RAM or | |
| | better, should be loaded | |
| | with the software | |
| PC | USB 2.0 and 3.0/3.1 | |
| Connectivity | compatible | |
| Display | 14 inch LCD or better | |
| Power | USB Powered | |
| Warranty | 03 years or more | |
| Accessories | Switchable Probes 10:1, | |
| | Pack of Logic Cables, | |
| | USB Cable | |
| Differential | Probe Bandwidth: DC ~ | |
| Probe | 25MHz (attenuationx50 | |
| | ,x200) ; DC ~ | |
|). | 15MHz(attenuationx20) | |
| | Attenuation: x20 ,x50 | |
| | ,x200 | |
| | Accuracy: ±2% | |
| | Voltage Input Range | |
| | (DC+AC peak to peak): | |
| | ≤140Vp-p for x 20, | |
| | ≤350Vp-p for x 50, | |
| | ≤1400Vp-p for x 200 | |



| | Permitted Max Input |
|----|---------------------------|
| 1 | Voltage: Maximum |
| | differential voltage: Max |
| | voltage between input |
| | terminal and ground: |
| l. | 600Vrms |
| | Output: ≤±7.0V |
| 1 | Output impedance: 508 |
| | Power Supply: External |
| | 9V DC power supply |

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. 1000/- (Non-refundable) by way of separate Demand Draft drawn in favour of "The Registrar, Veer Surendra Sai University of Technology, Burla" payable at SBI, Burla should be enclosed along with the Bid. The Tender cost fee and the Earnest Money Deposit (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) Tentative date of commencement of downloading bidding document -20/12/2022 at 04.00 PM
- b) Last date and time for Receipt of bids -19/01/2023 up to 04.00 PM
- c) Time and date of opening of Tender & Technical bid 20/01/2023 at 11.00AM
- d) PLACE OF OPENING OF TENDER AND ADDRESS FOR COMMUNICATION AND RECEIPT OF BID DOCUMENTS

THE REGISTRAR

VEER SURENDRA SAI UNIVERSITY OF TECHNLOGY, ODISHA

At- Burla, Po-Burla Engineering College, Dist-Sambalpur-768018,

Tel. No-0663-2430211 Fax No-0663-2430204

REGISTRAR VSSUT, Burla



General Terms and Conditions

GENERAL TERMS & CONDITIONS OF CONTRACT FOR SUPPLY, INSTALLATION AND DEMONSTRATION OF THE HARDWARE, SOFTWARE, REQUIRED FOR DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, 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 3(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 / within Odisha state.
- 1.5 Bidder shall have to provide demonstration of hardware to Purchaser.
- 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 the 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 hardware and software offered against the schedule of requirement, should be in accordance with the stipulated specifications and of one reputed brand/model (N.B: Specifications of equipment of items are to be procured as per detailed specifications mentioned in pp. 01-08)

- 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 hardware and software 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 hardware 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(EMD)
- 3.2 Technical details of the equipment/hardware/firmware 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 along with Manufacturer Industry Registration and Tax Registration Certificate.
- 3.5 GST clearance certificate up to date where applicable/Copy of GST regd. certificate.
- 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 hardware, if any, should be provided.

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3.16The 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 Each quoted item and all accessories should cover the warranty / guarantee for 3(three) years from the date of commissioning (Annexure-II).
- 4.3 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.
- 4.4 The cost of standard accessories shall be included in basic price and optional accessories shall have to be quoted separately.

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 (excluding GST), and other levies payable on the raw materials and components, Forwarding and Handling charges, Insurance charges, commissioning including testing and training, any other charges if applicable shall be included in the basic unit price as per annexure-I.
- 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 GST clearance

Copies of valid 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

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considered for this Bid. No interest is payable on EMD. Parties are invited to participate in all items or some items.

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:

| i) Name of Dept.: | |
|---|--|
| ii) Reference No of Bid | |
| iii) Bid regarding | |
| iv) Due date & time for submission of the Bid | |
| v) Due date & time for opening of the Bid | |
| vi) 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 invariable 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 20/01/2023 at 11.00 AM 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.

No.

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 equipment(s) and software 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.
- 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 hardware 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.

5.18Evaluation 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 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.
- 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 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.

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- 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.

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. All the items must be delivered within 45 days from the date of issue of purchase order.

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 consignce 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 3 (Three) 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 Payment Terms

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

6.6 Transportation

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

6.7 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.

<u>Ja</u>

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.

6.8 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.

6.9 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.

6.10 Commissioning Period

Maximum commissioning period is 15 days from the date of supply OR 60 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.

6.11 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.

6.12 Rejected items

No payment shall be made for rejected supplied items. Rejected items must be removed by the bidders 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 and responsibility of the suppliers) without any further notice.

6.13 Jurisdiction of the Court

The Purchaser and the 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.

ANNEXURE-I

Format for Price Scheduled

| SI. | Description of Item and Model | Quantity | Basic Unit |
|-----|---|----------|------------|
| No. | | | Price |
| 01 | Linear Variable Differential Transformer Unit | 02 set | |
| | LVDT | | |
| | • Range: ±10mm | | |
| | • Resolution: 0.1 mm | | |
| | A mechanical arrangement along with a Micrometer /Dial | | |
| | Gauge | | |
| | connected with LVDT | | |
| | • Built-in 3½ digit DVM / built-in 16X2 line LCD display for | | |
| | measurement of measured displacement | | |
| | Signal conditioning circuit with zero and span adjustment | | |
| | for calibration | | |
| | • 220V±10%, 50Hz mains operation | | |
| | Built in regulated power supply. | | |
| | Test points should be provided on the kit to | | |
| | measure/observe the signals. | | |
| | Suitable sized interconnection cables; Patch cords | | |
| 02 | Synchro Devices | 01 Set | |
| | Synchro transmitter-receiver pair with calibrated dials | | |
| | Panel meter for ac voltages | | |
| | • All internal power from the 220 V/50 Hz mains | | |
| 03 | Temperature Sensing Trainer kit with Stand-alone mode | 02 Set | |
| | as well as in PC based mode based analysis feature | | |
| | System should consist of Master unit, experimentation Panel and Computer Interface Module | | |
| | and Computer interface Module | | |
| | Master Unit Specifications: | | |
| | Built in power supply, | | |
| | Built in function generator: O/P waveform- sine, triangular & | | |
| | square, TTL O/P freq. 1Hz to 200KHz in ranges with | | |
| | amplitude & freq. control; pots, o/p voltage 10Vpp. | | |
| | On board measurement: DC voltmeter 2V/20V | | |
| | Temperature Sensing Transducers Experimentation Panel | | |
| | Specifications: | | |
| | Instrumentation Amplifier to amplify thermocouple | | |



| | signals Built in heat bar / mini oven driven by Power Amplifier of sufficient wattage Temp. selection up to 95° C in 5 ranges with ON / OFF closed loop control. ➡ Different Temperature sensors: i. Thermocouple J with room temp. calibration pot. ii. Thermocouple K with room temp. calibration pot. iii. Thermistor (100K Ohm), iv. RTD PT100, v. IC sensor (LM 34/35 or AD 220 or equivalent) vi. Bimetallic switch ➡ Computer interface DAQ card programmable with LabVIEW: ✓ DAQ USB Device; ✓ DAQ consist of 08 Single ended or 04 Differential Analog Input Channel with 16 bit resolution and 50 kS/s sampling rate input ±10 V, ✓ 02 Analog Output channels with 16 Bit resolution 5 kS/s simultaneous per channel update rate in the rage of ±10 V, ✓ 13 Digital Input/Output line. ✓ A 32-bit Counter | | |
|----|--|--------|--|
| | Software: One Application Software to run the experiments in PC BASED-Mode. | | |
| | _ | | |
| 04 | Smart Data Acquisition and Control Setup with Sensor and Actuator The features of system are: ➤ 10 analog inputs, 6 analog outputs, 40 digital I/O lines ➤ Wireless, LEDs, push button, accelerometer onboard ➤ Xilinx FPGA and dual-core ARM Cortex-A9 processor ➤ Programmable with LabVIEW or C; adaptable for different programming levels | 01 Set | |
| | Kit to include: | | |
| , | ✓ 3-axis accelerometer ✓ Ambient light sensor ✓ 3-axis compass ✓ 3-axis digital gyroscope | | |



| | ✓ H-bridge driver with | feedback inputs | | |
|---|---|---------------------------------------|--------|---|
| | ✓ Ultrasonic range find | er | | |
| | ✓ Infrared proximity se | | | |
| | ✓ GWS Servo : S03TX | | | |
| | ✓ GWS Servo : Continu | | | |
| | ✓ DC motor/gearbox 1: | | | |
| | ✓ Motor Adapter for NI myRIO : Compatible with gear | | | |
| | motors and servos | | | |
| | ✓ Pmod Cable kit: 6", (| 5-pin Pmod cable | | |
| | ✓ Pmod Cable Kit: 6", | 12-pin Pmod cable | | |
| | ✓ MTE Cable : 4-pin to | 2x2-pin MTE cable | | |
| | ✓ 6-pin Headers : 6-pir | header and gender changer (5-pack) | | |
| | ✓ 2x6-pin Headers : 2x | 6-pin header (5-pack) | | |
| | | S | | |
| | Linear system with act | uator control (with DC motor) | | |
| - | | | | |
| 5 | Integrated PC based To | est Bench consisting of Oscilloscope, | 02 Set | |
| | Logic Channels, Arbitr | eary Function Generator, FFT | | |
| | Dased Spectrum Analys | ser and Protocol Analyser. | | |
| | Parameter | Specifications | | |
| | Oscilloscope | | | |
| | Bandwidth | 100MHz or more | | |
| | No. of analog | Minimum 2 | | |
| | channels | | | |
| | Rise Time | 3.5ns or less | | |
| | Vertical Resolution | 8 bits or more and Enhanced | | |
| | and Enhanced | Resolution 12 bits or more | | |
| | Resolution | 1001/0 | | |
| | Memory | 100MS or better (shared in | | |
| | Sampling Rate (real | operational channels) 1GS/s or better | | |
| | time) | 105/8 of better | | |
| | Max. waveforms/sec | 80000 or more | | |
| | Vertical Sensitivity | 4mV/div to 4V/div or better | | |
| | Logic Analyser | 4111 V/div to 4 V/div of octici | | |
| | No of input channels | 16 or more | | |
| | Max input frequency | 100MHz or more | | |
| | Input Dynamic Range | +/- 20V | | |
| | Over voltage | +/- 50 V | | |
| | protection | | | |
| | Input Slew Rate | 10V/us or better (minimum) | | |
| | Trigger Sources | Ch 1 or 2 or any MSO Channel | | |
| | Function Generator | Chi Tot 2 of any M50 Channel | | |
| | Standard Output | Sine, Square, Triangle, DC Voltage, | | |
| | Signals | Ramp, Sinc, Gaussian, half sine and | | |
| | I Digitala | ramp, one, Saussian, nan sinc and | | 1 |



| D1- D1 | more | |
|---|--|------------|
| Pseudo Random | PRBS, White Noise | |
| Signal Frequency | DC to 1MHz | |
| Frequency Resolution | 0.01 Hz or less | |
| AWG Bandwidth | 1MHz or better | |
| Spectrum Analyser | Tra toniu | |
| Frequency Range | DC to 100MHz | |
| Display Mode | Magnitude, Average, Pak Hold | |
| FFT Points | Maximum up to 1048576 points | |
| Protocol Analyser | The second secon | DALL DCC |
| Supported Protocols | 1-Wire, ARINC 429, CAN, CAN FD, DMX512, FlexRay, Ethernet 10 Base-T, USB 1.1, I ² C, I ² S, LIN, Manchester, MODBUS, PS/2, SPI, SENT, UART/RS-232 | DALI, DCC, |
| General | | |
| Software | Should support Windows 7, 8 and 10 | and Linux |
| Control Unit | Intel Core i3 processor or better, 4GB RAM or better, should be loaded with the software | |
| PC Connectivity | USB 2.0 and 3.0/3.1 compatible | |
| Display | 14 inch LCD or better | |
| Power | USB Powered | |
| Warranty | 03 years or more | |
| Accessories | Switchable Probes 10:1, Pack of Logic Cables, USB Cable | |
| ogic Channels, Arbit | Test Bench consisting of Oscilloscope, rary Function Generator, FFT vser and Protocol Analyser along | 02 Set |
| vith differential probe | | |
| v ith differential probe Parameter | Specifications | |
| vith differential probe Parameter Oscilloscope | Specifications | |
| vith differential probe Parameter | Specifications 100MHz or more | |
| vith differential probe Parameter Oscilloscope | Specifications 100MHz or more Minimum 2 | |
| vith differential probe Parameter Oscilloscope Bandwidth No. of analog | Specifications 100MHz or more Minimum 2 3.5ns or less | |
| vith differential probe Parameter Oscilloscope Bandwidth No. of analog channels Rise Time | Specifications 100MHz or more Minimum 2 3.5ns or less 8 bits or more and Enhanced | |
| vith differential probe Parameter Oscilloscope Bandwidth No. of analog channels | Specifications 100MHz or more Minimum 2 3.5ns or less 8 bits or more and Enhanced Resolution 12 bits or more | |
| Parameter Oscilloscope Bandwidth No. of analog channels Rise Time Vertical Resolution and Enhanced | Specifications 100MHz or more Minimum 2 3.5ns or less 8 bits or more and Enhanced Resolution 12 bits or more 100MS or better (shared in | |
| vith differential probe Parameter Oscilloscope Bandwidth No. of analog channels Rise Time Vertical Resolution and Enhanced Resolution | Specifications 100MHz or more Minimum 2 3.5ns or less 8 bits or more and Enhanced Resolution 12 bits or more | |

| Max, waveforms/sec | 80000 or more | |
|----------------------|---|--|
| Vertical Sensitivity | 4mV/div to 4V/div or better | |
| Logic Analyser | | |
| No of input channels | 16 or more | |
| Max input frequency | 100MHz or more | |
| Input Dynamic Range | +/- 20V | |
| Over voltage | +/- 50 V | |
| protection | | |
| Input Slew Rate | 10V/us or better (minimum) | |
| Trigger Sources | Ch 1 or 2 or any MSO Channel | |
| Function Generator | | |
| Standard Output | Sine, Square, Triangle, DC Voltage, | |
| Signals | Ramp, Sinc, Gaussian, half sine and | |
| D | more | |
| Pscudo Random | PRBS, White Noise | |
| Signal Frequency | DC to 1MHz | |
| Frequency Resolution | 0.01 Hz or less | |
| AWG Bandwidth | 1MHz or better | |
| Spectrum Analyser | | |
| Frequency Range | DC to 100MHz | |
| Display Mode | Magnitude, Average, Pak Hold | |
| FFT Points | Maximum up to 1048576 points | |
| Protocol Analyser | | |
| Supported Protocols | 1-Wire, ARINC 429, CAN, CAN FD | |
| | DALI, DCC, DMX512, FlexRay, | |
| | Ethernet 10Base-T, USB 1.1, I ² C, | |
| | I ² S, LIN, Manchester, MODBUS, | |
| <u> </u> | PS/2, SPI, SENT, UART/RS-232 | |
| General | 1 | |
| Software | Should support Windows 7, 8 and 10 and Linux | |
| Control Unit | Intel Core i3 processor or better, | |
| | 4GB RAM or better, should be | |
| | loaded with the software | |
| PC Connectivity | USB 2.0 and 3.0/3.1 compatible | |
| Display | 14 inch LCD or better | |
| Power | USB Powered | |
| Warranty | 03 years or more | |
| Accessories | Switchable Probes 10:1, Pack of | |
| | Logic Cables, USB Cable | |
| Differential Probe | Probe Bandwidth: DC ~ 25MHz | |
| | (attenuationx50,x200); | |
| | DC ~ 15MHz(attenuationx20) | |

| | Attenuation: x20 ,x50 ,x50 ,x50 ,x50 ,x50 ,x50 ,x50 ,x5 | OC+AC peak x 20 , oltage: voltage: aput terminal | |
|---|---|--|--|
| Delivery Mode: FOR VSSUT, 1 | Burla | | |
| Total bid price F.O.R. VSSUT Rs | Burla {Same as grand | total in (f) above} | quoted items is |
| Place | | Signature | |
| Date: | | Name | |
| | ¥ | Business Address_ | |
| | | Email | |
| | | Contact Number | - |
| | | Affix Rubber stamp | |
| Note:- | | | |
| 1.GST in connection with the iter | ms shall be shown separa | tely. | |
| | | | |
| 2. The stipulations in Technical S3. The supplier shall keep suffic spares are required to be imported them custom cleared and pay all r | ient stock of spares requ d, it would be the respons | ire during warranty p | |
| Place: | | | |
| Date: | | | |
| | | S | ignature of Bidder Business Address |
| | | | Seal of the Bidder |
| | | | |

27 | 32

ANNEXURE-II

WARRANTY MAINTENANCE CONTRACT AGREEMENT.

| THIS AGREEMENT made theday of, 20_ between the "The |
|---|
| Registrar, Veer Surendra Sai University of Technology, Burla" (hereinafter "the Purchaser") |
| of the one part and M/s (herein 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 Burla, Sambalpur 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 3 (Three) year from the date of installation & |
| commissioning of the instruments & equipment as per award of Contract No |
| dated |

Name of the Equipment & machineries Qty

1 CD PP 17 17

(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 during the warranty period of the equipment(s).
- 2. Preventive maintenance, six 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.

Ch.

- 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.

| Signature |
|------------------|
| For the Supplier |
| Name: |
| Designation: |
| Address: |
| |

Telephone No:

ANNEXURE-III

MANUFACTURES' AUTHORISATION FORM

| No | / Date/ |
|---|---|
| То | |
| The Registrar, | |
| VSSUT Odisha | |
| Burla, Sambalpur. | |
| Dear Sir, Bid No | |
| We | who are established and |
| reputable manufacturers of | who are established and having factories at |
| | (Address of |
| Factory) do hereby 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 | r 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 goods and services offered by the above fi | warranty as per general conditions of contract for the rm 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
 - c) 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

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ANNEXURE-V

Technical details of the equipment/ hardware/ firmware to be supplied by the bidder

| Tender specification | Bidders Specification with make and model no (Enclose manufactures catalogue / brochure for each item) | Deviation if anyWith university specification |
|-------------------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | Tender specification | specification no (Enclose manufactures catalogue / |

Signature and seal of the Bidder

