

 INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD	<b>Indian Institute of Technology Palakkad</b> भारतीय प्रौद्योगिकी संस्थान पालक्काड <b>STORES &amp; PURCHASE SECTION</b> Email: <a href="mailto:purchase@iitpkd.ac.in">purchase@iitpkd.ac.in</a> Telephone: 04923-226586/87 GSTIN: 32AAAAI9910J1ZR
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**Tender No. GTE/2022-23/006**  
**Date of Publication: 19-04-2022**  
**Date/Time of Closing: 09-05-2022, 1500 hours**

Indian Institute of Technology Palakkad Invites **GlobalTender** under Two-bid system for the:

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
 UNIVERSAL TESTING MACHINE FOR ELEVATED TEMPERATURE TESTS ON GEOSYNTHETICS WITH  
 NON-CONTACT MEASUREMENTS**

Conforming to the specifications as in BoQ Technical.

Tender Documents may be downloaded from the e-Wizard Portal <https://mhrd.euniwizarde.com/>. Aspiring Bidders who have not enrolled / registered in e-Wizard should enroll / register before participating through the website <https://mhrd.euniwizarde.com/>. Bidders are advised to go through instructions provided at “**Procedure for Submission of E-tender**”. [Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this e-Wizard Portal”].

Bidders can access tender documents on the website. For searching in the site, kindly go to Live Tenders option, Click “Advance Search” and select Department as ‘IIT Palakkad’. Thereafter, Click on “Search” button to view all IIT Palakkad tenders. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://mhrd.euniwizarde.com/> as per the timeline below.

**No manual bids will be accepted. All tender documents including Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.**

S. No.	Events	Date and Time
1	Publication of the Tender Document	19-04-2022
3	Last Date/Time for submission of ONLINE Bids	09-05-2022, 1500 hours
4	Opening of Technical Bids	09-05-2022, 1515 hours

## TERMS AND CONDITIONS

<b>1</b>	<b>GENERAL</b>	<ul style="list-style-type: none"><li>(a) The responsibility of submission of the bids on or before the last date shall rest with the tenderer. The institute will hold no responsibility for the non-receipt of the bids or the bids received after the date/time specified. Any bid received by IITPKD after the bid submission deadline prescribed by IITPKD, shall be rejected and returned unopened to the Bidder.</li><li>(b) Canvassing or offer of an advantage or any other inducement by any person with a view to influencing acceptance of a bid is an offence under the Laws of India. Such action will result in the rejection of bid, in addition to other punitive measures.</li><li>(c) Each bidder shall submit only one bid, either by himself or as a partner in a joint venture or as a member of the consortium. If a bidder or if any of the partners in a joint venture or any one of the members of the consortium participate in more than one bid, the bids (of both the individual and the partnership/consortium/joint venture) are liable to be rejected.</li><li>(d) The bidder shall bear all costs associated with the preparation and submission of his bid and IITPKD shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tender process.</li><li>(e) <b>IITPKD will respond to any request for clarification or modification of the Tender Document that are received up to TWO DAYS prior to the deadline for submission of bids prescribed by IITPKD. For this purpose, the prospective bidder(s) requiring clarification in the Tender Document shall notify IITPKD through the ONLINE Portal ONLY. Any such clarification, together with all the details on which the clarification had been sought, will be published in the ONLINE Portal ONLY. Deviations, if any, observed by the Institute in the submitted bids, from the Terms and Conditions of the Tender Document will not be accepted by the Institute.</b></li><li>(f) Except for any such clarification by the Institute, which is expressly stated to be an addendum to the tender document issued by the Registrar, IIT Palakkad, no written or oral communication, presentation or explanation by any other employee of any of the Sections/Departments of the Institute, shall be taken to bind or fetter the Institute.</li><li>(g) The bidder is expected to examine all instructions, forms, terms and conditions in the Tender Document. In the event of discovery of any missing pages, the bidder shall inform the same to the Section/Department concerned. Failure to furnish the information required by the Tender Document or submission of a tender not substantially responsive to the Tender Document in every respect will be at the bidder's risk and may result in rejection of the bid.</li><li>(h) The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document.</li><li>(i) The Supplier shall not, without the prior written consent of the IITPKD, assign to any third party, the Contract or any part thereof.</li></ul>
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2	<b>COMPOSITION OF THE TENDER DOCUMENT</b>	<p>(a) The Tender Document comprises of:  Instruction to the bidders including terms and conditions  1. Technical Specifications (Annexure-I)  2. Undertaking by the Bidder (Annexure-II)  3. Fall Clause Notice Certificate (Annexure-III)</p>
3	<b>DOCUMENTS COMPRISING THE BID</b>	<p>(a) <b>The Technical, Techno-commercial and Commercial Bids (Cover One) and Commercial Bid (Cover Two) shall be submitted ONLINE through the e-Wizard Portal.</b></p> <p>(b) Bids submitted in any mode other than ONLINE will be rejected outright.</p> <p>(c) Documents establishing the conformity of the terms and conditions of the Tender Document shall be provided along with the bid. The offer/bids should be sent only for a system or that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.</p> <p>(d) Original catalogue (not any photocopy) of the quoted model duly signed by the principals must accompany the quotation in the Technical bid. No prices should ever be included in the Technical bid.</p> <p>(e) Compliance or Confirmation report with reference to the specifications and other terms and conditions should also be obtained from the principal.</p> <p>(f) Information related to the agency/bidder such as photocopies of the Registration/PAN/GST/TIN shall be furnished.</p> <p>(g) The technical bid should consist of all technical details along with commercial terms and conditions. <b>No prices should be included in the technical bid. Mentioning of Prices in the Technical Bid shall lead to DISQUALIFICATION.</b></p> <p>(h) Bidders who are bidding for this tender shall,  1) Should have implemented at least three orders of <b>UNIVERSAL TESTING MACHINE FOR ELEVATED TEMPERATURE TESTS ON GEOSYNTHETICS WITH NON-CONTACT MEASUREMENTS</b> during previous three financial years (2017-18, 2018-19, 2019-20) from Centrally Funded Technical Institutes (IITs, NITs, IISc, IISER), DRDO, ISRO, CSIR labs or Government Firms in India. Copies of the most recent purchase orders and user certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished.  2) Have an <b>Average Annual Turnover of Rs 1,60,00,000 (RUPEES ONE CRORE SIXTY LAKH ONLY) during the last THREE financial years (2017-18, 2018-19, 2019-20).</b> The bidder shall enclose the audited statements of the indicated financial years, which should have been certified by a Chartered Accountant or a Competent Authority.  3) Digitally signed Tender Document should be submitted in Cover One.</p>
4	<b>EARNEST MONEY DEPOSIT (EMD)</b>	<p>(a) The bidder shall furnish EMD of <b>Rs 1,50,000 /- (Rupees One Lakh Fifty Thousand Only)</b> through online payment gateway in the E-Wizard.</p>

5	<b>PERFORMANCE SECURITY</b>	<p>(b) <b>Bids not accompanied by EMD shall be DISQUALIFIED.</b></p> <p>(a) The performance security shall be submitted within <b>FIFTEEN DAYS</b> of receipt of the material by the IITPKD. The successful bidder shall furnish the Performance Security equal to <b>3%</b> of the order / contract value (excluding the value of annual maintenance charges). The Performance Security shall be valid all along the warranty period and shall extend upto <b>SIXTY DAYS</b> after the date of completion of warranty period. It shall be ensured by the successful bidder that the validity of the Performance Security submitted is extended depending on the date of commencement of the Warranty.</p> <p>(b) <b>The performance security shall be a bank guarantee (in the format as provided) issued by the Indian Scheduled bank acceptable to the IITPKD or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD.</b></p> <p>(c) The performance security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The performance security shall be returned to the Supplier not later than fifteen (15) days after its expiration.</p> <p>(d) Failure of the successful Bidder to comply with the requirements shall constitute enough grounds for the annulment of the award and forfeiture of the EMD, in which event the IITPKD may make the award to the next lowest evaluated bid submitted by a qualified Bidder or call for new bids.</p>
6	<b>BID PRICES AND CURRENCY</b>	<p>(a) Prices must be quoted separately for each equipment/item identified.</p> <p>(b) <b>Price quoted for equipment/items shall include all the costs associated with packing, local transportation from the point of clearance to IITPKD, insurance, loading, unloading and associated delivery charges. The delivery shall be on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. It is the sole responsibility of the supplier to ensure that the equipment is delivered on DDP mode to IIT Palakkad. An undertaking to this effect as in Annexure-II.</b></p> <p>(c) Prices quoted by the bidder shall be fixed during the validity of the bid.</p> <p>(d) <b>Prices of the equipment/items shall be quoted in Indian Rupees (INR) / Foreign Currency.</b></p>
7	<b>LETTER OF CREDIT</b>	<p>(a) Upon the successful Bidder's furnishing of the copy of the Purchase Order duly signed on each page and the Performance Security, for the equipment ordered in foreign currency, IITPKD will open a letter of credit (LC) in a convenient Nationalized Bank in India. For opening of LC necessary information shall be provided by the supplier or its authorized agents.</p> <p>(b) In case the successful bidder is a foreign company and wishes to submit Performance Security in the form of Bank Guarantee, the Bank Guarantee should be routed through the Beneficiary Bank to the end user bank. Otherwise, the Indian Agent of the foreign vendor shall submit a Bank Guarantee from a Nationalized Bank of India. The following documents shall be submitted in case of an Indian agent submitting the Performance Security on behalf of his principal:</p> <ul style="list-style-type: none"> <li>• Foreign principal's proforma invoice indicating the commission</li> </ul>

		<p>payable to the Indian agent and nature of after-sales service to be rendered by the Indian agent.</p> <ul style="list-style-type: none"> <li>• Copy of the agency agreement with the foreign principal and the precise relationship between them and their mutual interest in the business.</li> </ul> <p>(c) For imported equipment, a Letter of Credit (LC) shall be opened for 100% CIP price on receipt of the acknowledgment of the purchase order. However, 80% of the LC amount only shall be released on proof of the shipment of the consignment with necessary documents to be provided in detail at the time of placing of the purchase order. Balance 20% of the LC amount shall be released upon the receipt of a performance security of 5% of the total value of the purchase order and installation, commissioning, integration, validation and installation report/certification jointly given by the end user and the supplier.</p> <p><b>Any costs associated with the amendments made in the LC as per the request made by the Supplier s should be borne by the supplier.</b></p> <p><b>Any fluctuation in rates / rate conversions arising due to the amendment requests made by the supplier shall be on the supplier and not on the institute.</b></p>
8	<b>PERIOD OF VALIDITY OF BIDS</b>	<p>(d) Bids shall remain valid for a period of <b>180 DAYS</b> after the date of the deadline for submission of bids prescribed by IITPKD.</p> <p>(e) If the deadline is extended due to unforeseen circumstances, the bid validity shall be deemed to have extended accordingly.</p>
9	<b>TIME FOR SUPPLY, INSTALLATION, COMMISSIONING AND VALIDATION OF THE EQUIPMENTS/ITEMS</b>	<p>(a) The Supplier shall supply the equipment/items within the period specified in the tender document i.e. within <b>THREE MONTHS</b> of signing the purchase order or within the period mutually agreed between IITPKD and supplier. All the equipment and accessories should be delivered at <b>IIT Palakkad (Nila Campus), Kanjikode-Malampuzha Road, Pudusserry West, Kanjikode, Kerala 678623.</b></p> <p>(b) The Supplier shall thereafter proceed with the installation, commissioning, integration and validation and demonstrate operational acceptance of the equipment/items within the period specified. The equipment/items shall be installed and commissioned by the successful bidder within 20 to 25 days from the date of its receipt.</p> <p>(c) The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.</p> <p>(d) In the event of failure of supply of the item/equipment/items within the stipulated delivery schedule, IITPKD has all the right to purchase the item/equipment/items from other sources on the total risk of the Supplier under the risk purchase clause.</p>
10	<b>PRODUCT UPGRADES</b>	<p>The Supplier shall continue to support and maintain the version/model of the Equipment supplied by upgrading the software and the hardware as and when amendments are carried out in the existing version or the product is upgraded. Whereas upgrades to the software shall be supplied free of cost, the Supplier may charge for upgrade in hardware provided it is of major nature. An upgraded higher version of the instrument and software related with the instrument shall be supplied.</p>
11	<b>PENALTIES</b>	<p>If the Supplier fails to complete any of the activities in accordance with the time specified for it, or any extension of time granted by IITPKD, Liquidated</p>

		Damages Clause shall be invoked.
12	<b>UP-TIME GUARANTEE/ DOWNTIME PENALTY CLAUSE</b>	<p>(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days) X 365 (days)] basis during the warranty period.</p> <p>(b) The Supplier should provide up-time guarantee of 95% (24 hours/day basis) both during warranty. If downtime exceeds the 5% limit, extension of the warranty period will be twice the excess down time period.</p>
13	<b>LIQUIDATED DAMAGES</b>	<p>If a firm accepts an order and fails to execute the order, in full or part, as per the terms and conditions stipulated therein, it will be open to the Institute to recover liquidated damages from the firm at the rate of 1% of the value of the undelivered goods per month or part thereof, subject to a maximum of 5% of the value of the undelivered goods. It will also be open to the Institute alternatively, to arrange procurement of the required stores from any source, at the risk and expense of the firm, accepted and failed to execute the order according to stipulations agreed upon. This will also entail the removal of the defaulters' name from the approved/registered list of Suppliers.</p>
14	<b>EFFECT OF FORCE MAJEURE</b>	<p>(a) If the Supplier is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the IITPKD in writing of the occurrence of such event and the circumstances of the event of Force Majeure within <b>FIFTEEN DAYS</b> after the occurrence of such event.</p> <p>(b) The Supplier, when affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its performance of the Contract and to fulfill its obligations under the Contract, but without prejudice to IITPKD's right to terminate the Contract.</p> <p>(c) No delay or non-performance by the Supplier caused by the occurrence of any event of Force Majeure shall:</p> <ol style="list-style-type: none"> <li>i. Constitute a default or breach of the Contract;</li> <li>ii. Give rise to any claim for damages or additional cost or expense occasioned by the delay or non-performance.</li> </ol> <p>(d) If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than <b>THIRTYDAYS</b> or an aggregate period of more than <b>SIXTY DAYS</b> on account of one or more events of Force Majeure, the IITPKD shall have the right to terminate the Contract by giving a notice to the Supplier.</p>
15	<b>EXTENSION OF TIME LIMITS FOR SUPPLY AND MAKING OPERATIONAL, THE EQUIPMENT</b>	<p>(a) The time limit for supply, installation &amp; commissioning, integration &amp; validation shall be extended if the supply is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:</p> <ol style="list-style-type: none"> <li>i. Any occurrence of Force Majeure;</li> <li>ii. Any other matter specifically mentioned in the Contract;</li> </ol> <p>(b) By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.</p>
16	<b>GOVERNING LAW AND SETTLEMENT OF DISPUTES</b>	<p>(a) The Contract shall be governed by and interpreted in accordance with the laws of India.</p> <p>(b) Any dispute or claim arising out of/relating to this Contract of the breach, termination or the invalidity thereof, shall be settled by the Hon'ble Courts of Justice at Palakkad.</p> <p>(c) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the</p>

		<p>declaration for the same shall be submitted by the bidder as in <b>Annexure-II.</b></p> <p>(d) IITPKD reserves the right to accept or reject any or all the tenders in part or whole or may cancel the tender at its sole discretion without assigning any reason whatsoever. No further correspondence in this regard will be entertained.</p>
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## AWARD OF CONTRACT

<b>1</b>	<b>AWARD CRITERIA</b>	<ol style="list-style-type: none"><li>1. IITPKD will award the Contract to the Bidder whose bid has been determined to be substantially responsive and <b>as per the Order No. P-45021/2/2017-PP(BE-II) dated 16-09-2020 from Department for Promotion of Industry and Internal Trade (Public Procurement Section), Ministry of Commerce and Industry, Govt. of India.</b></li><li>2. The Institute reserves the right to buy different items/quantities from different bidders considering price of individual/group of equipment/items or any other factors as decided by the Committee.</li></ol>
<b>2</b>	<b>AWARD OF PURCHASE ORDER</b>	<ol style="list-style-type: none"><li>1. Prior to the expiration of the period of bid validity, IITPKD will issue the Letter of Intent / Purchase Order to the successful Bidder in writing.</li><li>2. Any amendment(s) in the Purchase Order will be permitted within <b>SEVEN DAYS</b> of its issuance. No amendments will be permitted beyond this period.</li><li>3. The Purchase Order will constitute the foundation of the Contract.</li></ol>
<b>3</b>	<b>CONTRACT AGREEMENT</b>	<ol style="list-style-type: none"><li>1. Within <b>SEVEN DAYS</b> of receipt of the Purchase Order, the successful Bidder shall sign and date its copy on each page and return it to the Purchaser.</li><li>2. Copy of Purchase Order duly signed and dated by the successful Bidder on each page shall constitute the Contract Agreement.</li></ol>
<b>4</b>	<b>CONTRACT DOCUMENTS / AMENDMENT TO CONTRACT</b>	<ol style="list-style-type: none"><li>1. All documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.</li><li>2. The order of precedence of the Contract documents shall be as follows:<ol style="list-style-type: none"><li>(i) Contract Agreement/Purchase Order</li><li>(ii) All Forms/Annexures</li><li>(iii) equipment/items and their requirement</li><li>(iv) Supplier's Bid</li><li>(v) Tender Document</li></ol></li><li>3. No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract and is signed by a duly authorized representative of each party to the Contract.</li></ol>

**REGISTRAR**



## TECHNICAL SPECIFICATIONS

S. No.	Items	IIT PKD required Specification
1	<b>Load frame</b>	1.1 Electromechanical Universal Testing Machine (UTM) of 50kN capacity with the possibility of accommodating an environmental chamber for elevated temperature tests.
		1.2. The UTM should be capable of performing for tensile, compression, tear, adhesion, peel and cyclic tests on polymers, geosynthetic materials and building materials, over range of temperatures.
		1.3. The UTM should have AC servo controlled drive motor.
		1.4 The UTM should have closed-loop controller and data acquisition system for measuring load, cross-head displacement
		1.5 Control modes of displacement, load and strain should be possible.
		1.6 Testing speed range of 0.0005 to 500 mm/min at full capacity of the machine. The crosshead return speed of 750 mm/min or higher. A copy of a calibration certificate to be enclosed as a proof
		1.7 Electromechanical UTM of dual column construction with guide columns
		1.8 The axial stiffness of the frame should be at least 170 kN/mm or higher. Stiffness Certificate needs to be submitted for technical evaluation
		1.9 The floor standing model (UTM) should have facility to adjust the ergonomic working position by the operator.
		1.10 The UTM should have 24-bit data acquisition card with minimum closed loop acquisition rate of 500 Hz simultaneously on load, extension, and strain channels.
		1.11 The position and repetition accuracy shall be 0.002 mm or better.
		1.12 Position control resolution shall be 0.1 $\mu$ m or better.
		1.13. Space between columns shall be at least 420 mm or higher so as to accommodate environmental chamber having outer dimensions (W x H x D) of 400 x 1050 x 640 mm.
		1.14. Load frame should able to generate maximum load at maximum speed.
		1.15. Test area height should be at least 1700 mm or higher.
		1.16. Accuracy of speed should be 0.05 % of set speed.
		1.17. Cross-head travel within the chamber should be at least 700 mm or higher with wedge/screw/self tightening grips.

		1.18 Test control panel with results display, start, stop and return functions, programmable function keys, test status indicators, variable speed and specimen protection.
		1.19 Computer running Windows 10 with software for controlling and defining the test and for data acquisition.
		1.20. System must have an option for integrated safety enclosure with smart safety switch to reduce cross head speed when enclosure or environmental chamber door is opened
		1.21. The equipment should be provided with a remote control with the help of which tests can be entirely run without a PC, in the event of computer malfunctioning or emergency.
		1.22. System should be usable and durable under local laboratory ambient conditions, and must be installed and commissioned with no additional costs
		1.23 The equipment should be capable to accommodate an environmental chamber
		1.24. The controller should have industry standard ethernet interface, for fast and reliable communication with the computer.
		1.25 The controller should have data sampling rate of 400 kHz or better.
		1.26. The electronics to be placed in such a way as to protect from accidental damage, dust and spillage
2	<b>Load cells</b>	2.1 Two independent electronics load cells of 5 kN and 50 kN static capacities (in tension and compression), should have self identification facility, should automatically load the suitable calibration data. These load cells should have at least 150 % over load protection. The 5 kN capacity load cell should piggyback on 50 kN load cell.
		2.2 All load cell accuracy shall be ISO 7500-1 Class 0.5 from 1% to 100% and must fulfill all five criteria of ISO 7500-1
3	<b>Grips</b>	3.1. Wedge action tensile grips of 50 kN capacity to conduct test on flat specimens of thickness up to 10 mm. Should be able to incorporate a sample of maximum mm width. Should be usable inside the environment chamber over temperature range from -80°C to 250 °C.
		3.2. Screw grips of 2.5 kN capacity to conduct tensile, grab and trapezoidal tear tests on woven & non-woven geotextiles, geomembranes, fabric strips, materials and polymer dog bone samples having very high elongation, as per ASTM D 4632, ASTM D 5035, ASTM D 4533 and ASTM D 6392. Should be able to incorporate a sample of maximum mm width and mm thickness. An additional Self-tightening grips of 2.5 kN capacity for soft plastic and rubber dumbbell samples preferred. Should be able to incorporate a sample of maximum mm width and mm thickness.
4	<b>Video extensometer</b>	4.1. Video extensometer shall be of non-contact type and hardware must be synchronized with UTM controller.
		4.2. The synchronized video recording for future usage
		4.3. The video extensometer should be capable of recording axial and transverse strains simultaneously.
		4.4. Gauge length shall be automatic measurement between marks or pattern recognized by the video extensometer.

		4.5. Measuring range (field-of-view) of video extensometer should be at least 500 mm or higher (to enable testing of high elongation samples like geomembranes).
		4.6. Strain distribution analysis should be possible between several user chosen points.
		4.7. Transverse strain measurement must be possible to measure across the entire width of sample or between many user defined points.
		4.8. Video extensometer shall conform to ASTM E83, ISO 9513 and EN 10002-4 standards.
		4.9. Video extensometer must be compatible to use with environment chamber over temperature range from -80°C to 250 °C for future
		4.10. Lens correction target of 24 mm x 24 mm, for correction of geometrical lens distortions.
		4.11. It should have backlit facility.
		4.12. Capable of storing real-time test video.
		4.13. Video extensometer should be capable of recognizing pattern from the sample and measure extension of the sample from it.
5	<b>Software</b>	
		5.1. Test software to provide standard templates for running monotonic tests (tensile, compression, bend).
		5.2. Test Software to have graphical drag-and-drop test layout design. Must be possible to create test templates.
		5.3. Software to have freely configurable run time view. Show the test flow while the test is proceeding, indicate active vs. finished actions.
		5.4. All test templates that support testing against standards can be modified by the user using the graphic interface (no requirement to change source code). All variable definitions and calculations as well as the test flow/sequence and logic are visible and can be changed by the user.
		5.5. Software must support data acquisition modes according to time
		5.6. Software must support test report generation while the test is in progress. Must be possible for user to create custom reports in Microsoft excel that the test software can use to automatically generate report results
		5.7. Software should have ability to generate custom and standard reports from existing test data, as a process independent from testing
		5.8. The software package should meet the needs of a wide variety of applications (ex: Textiles including geotextiles, geomembranes, polymers, strips wires etc) for load/stress, elongation/strain, modulus as per various standards.
		5.9. Should have the capability for tension, compression, flexure, and test control based on extension, load or strain.
		5.10. The software should have the capability to save the test method along with the start position, limit positions etc so that the machine automatically comes to the start position for testing when the

		test file is opened.
		5.11. To create customized reports that can be linked with test methods and used to export test results
		5.12. Software should have Option to import ASCII data from NPL UK/ equivalent into it for its validation.
		5.13. The software must have password protection filter for administrator, so that user cannot change critical setting of the machine
		5.14. The software shall allow a user to configure a specific transducer (such as load cell or extensometer) and link it with a specific method such that the method will require that the specific transducer is used. If a different transducer is connected when a test is run with that method, the test will not run
		5.15. It should be possible to export the raw data and the test data channels by a single mouse click into Excel or Word etc
		5.16. The software should include module to explain failure mechanism of the tested material
		5.17. The software should be capable of analyzing the trends of the machine such as Calibration Interval, maintenance intervals(freely configurable), Number of overloads, total hours of system in operation, Total test duration, Number of tests(Compression and tension), Total travel of crosshead, sensor information etc.
		5. 18. Suppliers specifying Yes / We comply/ copying the specification and pasting on the Supplier specifications are not acceptable and may lead to rejection. Proper Remarks, specific documentational proofs are necessary

**UNDERTAKING BY THE BIDDER**

**(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

We here by accept all the Terms and Conditions of the Tender Document and strictly adhere to the same in the event of getting Purchase order. We also declare that the Technical and Financial Bids submitted by us has NO DEIVATION from the Tender Terms and Conditions.

**We here by accept that the PRICES OF THE EQUIPMENT/ITEMS QUOTED IS AS PER THE CLAUSE NO.6 OF THE TENDER DOCUMENT.**

We hereby undertake that there are \_\_\_\_\_ pages, serially numbered, in the submitted tender including the supporting documents. (Please serially number all the pages including blank page, if any).

We have submitted our principal's exclusive authorization letter which is specific for this tender No. \_\_\_\_\_ dated \_\_\_\_\_.

**Note:**

**This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority.**

**FALL CLAUSE NOTICE CERTIFICATE**

**(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. \_\_\_\_\_ dated \_\_\_\_\_ (Please do not reveal the prices here, which will lead to outright rejection of your bid).

The prices charged for the Stores supplied under tender should under no event be higher than the lowest prices at which the party sells the items of identical description to any other Govt. organization/PSU's/Central Govt, /State Govt. Autonomous bodies/Central/state Universities/Central/State Educational Institutions, failing which the "FALL CLAUSE" will be applicable. The institute will look into a reasonable past period to ensure this.

In case, if the price charged by our firm is found to be more, **IIT Palakkad** will have the right to recover the excess charged amount from the subsequent/unpaid bill of the supplier.

**Note:**

**This letter of authority should be on the letterhead of the quoting firm and should be signed by a Competent Authority and having the power of attorney.**