

COMSATS University Islamabad  
Sahiwal Campus

**TENDER DOCUMENTS**

**For**

**Procurement of Universal Testing Machine (UTM) 1000 kN Capacity and  
Equipment for Geotechnical and Highway Engineering Labs, Civil  
Engineering Department, CUI Sahiwal Campus**

**(Single Stage Two Envelop Procedure)**

**Submission and Opening Date for Tender:**

**February 09, 2022(Wednesday)**

**Submission Time for Technical and Financial Proposals: 1430 hours**

**Opening Time (only Technical Proposals): 1500 hours**

**Tender Issued to M/s \_\_\_\_\_**

**February 2022**



---

**Purchase and Store Department**

COMSATS Road, Off G.T.Road, Sahiwal

Tel: 040-4305666-Ext-128 & 186

Web: <https://www.sahiwal.comsats.edu.pk/Tenders.aspx>

**Signature & Stamp of Bidder**

**TABLE OF CONTENTS**

<b>Srl.No</b>	<b>Description</b>	<b>Page No.</b>
<b>01</b>	<b>Invitation to Bid</b>	<b>03</b>
<b>02</b>	<b>Terms and Conditions of the Tender</b>	<b>04</b>
<b>03</b>	<b>Technical Proposal</b>	<b>13</b>
<b>04</b>	<b>Bill of Quantities (BoQ)/Specifications</b>	<b>17</b>
<b>05</b>	<b>Checklist for documents to be attached with the Technical Proposal</b>	<b>23</b>

**Invitation to Bid**

(Tender No. CUI/SWL/Procurement/FY 21-22/140)

**Procurement of Universal Testing Machine (UTM) 1000 kN Capacity and Equipment for Geotechnical and Highway Engineering Labs, Civil Engineering Department, CUI Sahiwal Campus**

1. COMSATS University Islamabad, Sahiwal Campus, a public sector organization invites sealed bids from the **Original Equipment Manufacturers (OEM)/authorized distributors** registered with income and sales tax departments and who are on active taxpayers list (ATL) of FBR for the work titled “**Procurement of Universal Testing Machine (UTM) 1000 kN Capacity and Equipment for Geotechnical and Highway Engineering Labs, Civil Engineering Department, CUI Sahiwal Campus -Tender # 140**”.
2. Bidding documents, which are containing detailed terms and conditions, method of procurement, procedure for submission of bids, bid security, bid validity, opening of bid, evaluation criteria, clarification/rejection of bids, performance guarantee etc. are available for the interested bidders at “Purchase and Store Department, COMSATS Road, Off G.T.Road, Sahiwal”. The non-refundable fee of the bidding document is Rs. **Rs. 1,000 (One Thousand Rupees Only)** in the shape of pay order/Demand Draft in favor of CUI, Sahiwal.
3. The bids, prepared in accordance with the instructions in the bidding documents, must reach Purchase and Store department, COMSATS Road, Off G.T.Road, Sahiwal on or before 1430 hours on **February 09, 2021 (Wednesday)**. Bids will be opened at 1500 hours on the same day, in the presence of bidder’s representatives who choose to attend at the same address. This advertisement is also available on the PPRA website at [www.ppra.org.pk](http://www.ppra.org.pk) and on the Campus Website at <https://www.sahiwal.comsats.edu.pk/Procurement/Tenders.aspx>.

For Technical Queries/Concerned Department

**Dr. Engr. Sadam Hussain**  
**HoD/Civil Engineering Department**  
**Cell Ph. +92 333 7131325, +92 304 1938240**  
**Email: [sadamhussain@cuisahiwal.edu.pk](mailto:sadamhussain@cuisahiwal.edu.pk)**

**Signature & Stamp of Bidder**

## **TERMS AND CONDITIONS OF THE TENDER**

- 1. Eligible Bidders.** - Bidding is open to all firms and persons meeting the following requirements:
  - a) Registered with Income and Sales Tax Departments, Government of Pakistan
  - b) and who are on Active Taxpayers List (ATL) of Federal Board of Revenue (FBR), Government of Pakistan.
  
- 2. Tender Document Fee (Non-Refundable).** - Bidding documents along with Pay Order / Demand Draft amounting to **Rs. 1,000/-** as a tender documents fee (Non-Refundable) shall be submitted in favor of COMSATS University Islamabad, Sahiwal Campus to the address given below. No bid will be accepted without the tender documents' fee. Attach Tender document fee with the Technical Proposals.
  
- 3. Bid Security (Refundable).** - The bidder is required to furnish in the form of Deposit at Call (CDR) or a Bank Guarantee issued by a Scheduled Bank in Pakistan equivalent to 2% of the total bid price as a Bid Security in favor of "COMSATS University Islamabad, Sahiwal Campus". Any bid not accompanied by acceptable bid security shall be rejected by the Employer as non-responsive and without any right of appeal. Attach Earnest money with the Financial Proposals.
  - a. The bid securities of unsuccessful bidders will be returned upon award of contract/Issuance of Purchase Order to the successful bidder or expiry of the validity of Bid Security whichever is earlier.
  - b. The Bid Security may be forfeited:
    - i. If a bidder withdraws his bid during the period of bid validity
    - ii. If a bidder does not accept the correction of his bid price
    - iii. in case of a successful bidder, if he fails to sign the contract agreement or execute the work as specified in the bill of quantities (BoQ).
    - iv. in case of non-performance of the contract, delayed supply/installations or substandard supply/installation, short in quantity, the security deposit will be forfeited and the firm will be blacklisted.
  
- 4. Performance Guarantee (Refundable):** **Warranty will be One Year. However, 10%** of the total value of the Invoice (except consumables) or a Bank Guarantee issued by a Scheduled Bank in Pakistan will be retained as security by COMSATS University Islamabad, Sahiwal Campus which will be released after **Twelve Months** from the date of delivery / completion of work / supply. Insurance Guarantee is not acceptable. After finalization of the bid and signing contract, performance guarantee within twenty-eight days is required to be submitted and bid security is to be released.
  
- 5. Bid validity.** - All prices should be valid for at least **90 days from the date of opening of Financial Proposals.** Withdrawal or any modification of the original offer within the validity period shall

entitle CUI, Sahiwal Campus to forfeit the earnest money in favor of the CUI, Sahiwal Campus and / or put a ban on such vendor participation in CUI, Sahiwal Campus tenders / works

6. The Purchase/Work Order will be awarded on **Item Wise Basis**.

7. **The interested vendors can submit their Financial Proposal in the following ways:**

**Option-I (Pak Rupees)**

- i. Unit Cost of the equipment with all applicable Taxes, Packing, Delivery at COMSATS University Islamabad, Sahiwal Campus's premises with Installation and Training Charges in Pak Rupees.
- ii. The Unit Cost must also be inclusive of Installation and Training Cost. This cost can be provided in Pak Rupees with Financial Proposals.
- iii. After the opening of the Financial Proposals of the technically accepted bids, the Purchase and Technical Committees of the University will decide the option in the best interest of the University.

8. **Delivery time or Completion Schedule.** – The exact completion/delivery time from the date of the purchase / work order will be **90** days. The handing over / completion time for this contract is of critical importance.

9. All pages (BoQs & Terms & Conditions) are mandatory to be signed / stamped, failing which the bid may be rejected.

10. Any addition, deletion or modification of any clause of the procurement terms & conditions of CUI by any vendor will not be accepted and may lead to the rejection of the bid.

11. **Site Visits/Concerned Office.** - Before quoting, the bidder in his own interest can visit to know the specifications of each item in the **Store Section of CUI Sahiwal Campus OR Concerned Office**. This will help him in proper assessment of the work. Failure to do so will not absolve the vendor of his responsibility to carry out the work as specified in the tender documents. The cost of visiting the site shall be borne by the vendor and shall be at his own responsibility and risk.

12. The bid form (BoQs) must be duly filled in, stamped and signed by the authorized representative of the bidder.

13. **Method of Procurement.** – COMSATS University Islamabad, Sahiwal Campus, will follow the PPRA rule of **Single Stage Two Envelope Procedure**;

- i. The bid shall comprise a single package containing **two separate envelopes**. Each envelope shall contain separately the **Financial Proposal** and the **Technical Proposal**;
- ii. The envelopes shall be marked as **“FINANCIAL PROPOSAL”** and **“TECHNICAL PROPOSAL”** in bold and legible letters to avoid confusion;
- iii. Initially, only the envelope marked **“TECHNICAL PROPOSAL”** shall be opened;

- iv. The envelope marked as **“FINANCIAL PROPOSAL”** shall be retained in the custody of the procuring agency without being opened;
- v. The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
- vi. During the technical evaluation no **amendments** in the technical proposal shall be permitted;
- vii. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
- viii. After the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically nonresponsive shall be returned unopened to the respective bidders;
- ix. and the bid found to be the lowest evaluated bid shall be accepted.

**14. Submission and opening of bids.** - The bid should be submitted in a sealed envelope in such a manner that the contents are fully enclosed and cannot be known until duly opened. The sealed bids must reach up to **February 09, 2022 (Wednesday)** on or before **1430 hours** and will be opened on the same date **at 1500 hours** in the presence of available bidders. All bids submitted after the time prescribed shall be rejected and returned without being opened.

**15.** In case, the opening date is declared as a public holiday by the Government, the next working day shall be deemed the date for submission and opening of the tender at the same time and venue.

**16.** After the opening of bids, COMSATS University Islamabad, Sahiwal Campus will examine the bids for completeness as per the tender document.

**17.** The envelope should be marked as under;

**Secretary, Purchase Committee COMSATS University Islamabad, Sahiwal Campus**  
COMSATS Road, Off G.T Road, Sahiwal. Tel: 040-4305001-05, Ext: 128. The envelope shall also bear the word “CONFIDENTIAL” and following identification quotation of **“Procurement of Universal Testing Machine (UTM) 1000 kN Capacity and Equipment for Geotechnical and Highway Engineering Labs, Civil Engineering Department, CUI Sahiwal Campus (Tender # 140)”**.

**18. Clarification of bids.** - After the opening of bids, bidders are not allowed to alter or modify his bid. However, the procuring agency may seek and accept clarifications to the bid that do not change the substance of the bid.

**19. Arithmetic Errors.** - The Tender shall be checked for any arithmetic errors which shall be rectified. The Tender Price as determined after arithmetic corrections shall be termed as the Corrected Total Tender Price which shall be binding upon the vendor.

**20. Evaluation of bids.** - Bids will be evaluated in accordance with the evaluation criteria and other terms and conditions set forth in the bidding documents.

**21. Evaluation Criteria:** Technical bids will be evaluated on the basis of following criteria:

- The Tender will be evaluated on the **Item Wise Basis.**
- The vendors will provide literature of quoted brands which will be evaluated as per the specifications provided in the tender documents.
- In case of the authorized distributor of the quoted brand, please attach a valid authorization certificate from the Principal/Manufacturer with the Proposal. **Preference will be given to the OEM/Authorized distributor of the quoted brand.**
- Warranty for Machine & equipment will be on the part of the supplier, which is **One Year on-site with Parts Replacement Warranty** starting from the date of job completion. Please attach a letter for **warranty coverage**. Faulty/Dead parts will be replaced during the warranty period instead of repairing.
- The vendors will warrant to the COMSATS University Islamabad, Sahiwal Campus on their letterhead that the equipment is genuine, brand new, non-refurbished, unaltered in any way and has no defect, arising from design, materials and workmanship.
- Customized Company Profile. Detail of technical staff and facilities including equipment and labs for after-sales services. Detail of Head Office, Sub-offices with telephone numbers, email addresses, focal person and setup for after-sales services.
- Experience of the firm for supplying equipment to any Federal or Provincial Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan. Documentary evidence in the form of Work/Purchase orders must be provided with the technical proposal.
- The Vendor is a bidder who has not been blacklisted by any Federal or Provincial Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan. The vendor will provide this undertaking on a judicial stamp paper with Technical Proposal.

**22. One Bid per Bidder.** - Conditional or alternative bids are not allowed. Bidders are required to quote one bid/one brand. If bidders quote two bids/different brands then their bids are liable to be rejected. Bidders can quote only one offer in a tender, No-Option/Alternative offer will be considered. However, the alternative bids with separate bid security can be accepted.

**23. COMSATS University Islamabad, Sahiwal Campus reserves the rights to reject the bid if;**  
i. Received without earnest money

- ii. Received later than the date and time fixed for tender submission
  - iii. The tender is unsigned/ unstamped
  - iv. The offer is ambiguous
  - v. The offer is conditional
  - vi. Offer is made by the unauthorized agent/ supplier of the original equipment manufacturer
  - vii. The offer is from a firm, which is blacklisted by any Govt. Office.
  - viii. The offer is received by telephone/telex/fax/telegram.
  - ix. Any unsigned / ambiguous erasing, cutting / overwriting etc. are made.
- 24.** The Employer will inspect the supplied and provided items to verify their conformity to the Technical Specifications given in BoQ. The inspection will be conducted at the final destination.
- 25.** It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.
- 26.** Purchase order (s) will be awarded to the lowest or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BoQs.
- 27. Rejection of bids.** - COMSATS University Islamabad, Sahiwal reserves all the rights to reject all bids or proposals at any time prior to the acceptance of a bid or proposals. CUI, Sahiwal Campus will communicate the grounds for rejection of bids upon request of any supplier or contractor but not liable to justify those grounds.
- 28.** Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.
- 29. Force Majeure.** - The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failures to perform its obligations under the Contract is the result of an event of Force Majeure.
- a) For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
  - b) If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practicable and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.



**30. Extensions of Time.** -If at any time after issuance of Purchase Order, the Supplier should encounter conditions impeding timely delivery of the Items pursuant to tender Clause 08, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for delivery, in which case the extension shall be ratified by the parties by amendment of the Contract.

- a) Except in case of Force Majeure, as provided under Tender Clause 29, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to Tender Clause 31, unless an extension of time is agreed upon, pursuant to Tender Clause 30.

**31. Liquidated Damages.** If the vendor fails to deliver the goods / services to CUI-Sahiwal in time then the penalty will be charged as under:-

- a. 0.5% per day of the Purchase Order for the first 10 working days.
- b. 0.75% per day of the Purchase Order, after that, up to a maximum of 10% of the sum stated in the Purchase/Work Order. Once the maximum is reached, the Purchaser may terminate the contract pursuant to tender clause 35, earnest money and payment may be forfeited.

**32.** If the delivered goods / services are not according to the required quality standards / specifications, the same shall be liable to be rejected after inspection. The vendor would be required to supply as per requirements mentioned in our BoQs, otherwise, the purchase / work order will be cancelled after the due date with confiscation of earnest money.

**33. On account payments.** - Part / Advance payments in the case of option-1 in Pak Rupees are not allowed. Payment will be made on submission of Invoice in the name of "COMSATS University Islamabad, Sahiwal Campus" with a copy of delivery challan (s) after the complete order has been supplied, inspected and accepted which includes delivery / installation, and COMSATS acceptance / inspection thereof.

**34. Blacklisting of Suppliers and Contractors.** - A procuring agency can permanently or temporarily ban from participation in its respective procurement proceedings, the suppliers and contractors who either consistently failed to provide satisfactory performances or found to be indulging in corrupt or fraudulent practices.

**35. Termination.**

**35.1 Termination for Default**

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by Notice of default sent to the Supplier, may terminate the Contract in whole or in part:

(i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to Tender Clause 30; or

(ii) if the Supplier fails to perform any other obligation under the Contract.

(b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to Tender Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar goods. However, the Supplier shall continue performance of the Contract to the extent not terminated.

(c) if the Supplier, in the judgment of the Purchaser, has engaged in corrupt and fraudulent practices, in competing for or in executing the Contract.

### **35.2 Termination for Insolvency**

The Purchaser may at any time terminate the Contract by giving Notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such an event, the termination will be without compensation to the Supplier provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

### **35.3 Termination for Convenience**

The Purchaser, by Notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of the Notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (i) To have any portion completed and delivered at the Contract terms and prices; and/or
- (ii) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

**36.** In case of any grievances, the matter will be redressed as per PPRA Rules.

**37.** The contract will be executed and handed over in satisfactory conditions up to the entire satisfaction of COMSATS University Islamabad, Sahiwal Campus.

- 38. The quantities given in the Bill of Quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Bidder and verified by the Department/Concerned Office and valued at the rates and prices entered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Employer may fix as per the Contract.
- 39. The CUI, Sahiwal Campus reserves the right to modify the quantities of goods / services at any time before the award of purchase / work order.
- 40. In the case of repeat orders, fifteen percent (15%) of the Original Procurement within the bid validity period will be considered as the permissible limit to issue variation.
- 41. The bidder should furnish a certificate as worded below in token of acceptance of all the terms and conditions of the tender. Otherwise, the tender will not be considered under any circumstances.
- 42. I / We hereby confirm to have read carefully the terms and conditions of your Tender Enquiry dated for opening on..... for the purchase of .....

We agree to abide by all these terms and conditions/instructions.

- 43. Certified that the prices quoted by our firm are inclusive of G.S.T and all taxes as per rules and regulations.

**Company / Vendor Name:**.....

**Name of Vendor...:**.....

**Postal Address:**.....

**Tel. / Mobile:**.....**Email:**.....

**NTN#:**.....**GST#:**.....

**C.N.I.C No:**.....

**Signature of the Vendor** .....

**Date and Stamp:**.....

- Please also attach the Certificate supporting being an Active Taxpayer as per the requirement of FBR.

## Technical Proposal

Annexure: I

**Procurement of Universal Testing Machine (UTM) 1000 kN Capacity for Civil Engineering Department of CUI Sahiwal Campus. (Tender # 140)".**

Option-I-Unit Cost in Pak Rupees with freight, packing, delivery, installation, training with all applicable taxes.

**Universal Testing Machine (UTM) 1000 kN Capacity**

Sr.N.	Item Name	Specification	Unit	Qty	Technical Proposal Quoted by the Vendor		
					Model/Make	Currency	Quoted Specifications

**Universal Testing Machine (UTM) 1000 kN Capacity**

01	<b>Servo-Hydraulic Universal Testing Machine, 1000 kN Capacity <u>(With all necessary / optional accessories)</u></b>	<p>Confirming to EN, ASTM, ISO, DIN, BS standards for performing tensile, compression, bending/flexural, shears tests etc. and their accuracy / calibration as per given standards for each test.</p> <ul style="list-style-type: none"> <li>Servo-hydraulic machine for high load universal testing for tension, compression, bending/flexural, shear tests etc. on metallic and non-metallic test pieces.</li> <li>Computer controlled and closed-loop operation.</li> </ul>	No	1	China/Local		
----	---	--	----	---	-------------	--	--

**Signature & Stamp of Bidder**

		<ul style="list-style-type: none"><li>• System is load control, position control and strain control.</li></ul> <p><b>Capacity: 1000kN</b></p> <ul style="list-style-type: none"><li>• Load measuring system: high accuracy load cell according to EN ISO 7500-1.</li><li>• Double testing space: for performing <b>tensile, compression, bending, shears etc.</b> tests.</li><li>• Min. 4 guiding columns of steel with hard chrome coating and 2 high precision manufactured screws drivers.</li><li>• Power supply: Three Phase 380V+N+G, 50/60 Hz.</li><li>• Manufacturer facilities calibration includes certificate issued by manufacturing laboratory, accredited by ENAC.</li><li>• Digital display, stress test control, tensile test control.</li><li>• Ram stroke control (0.1</li></ul>					
--	--	--	--	--	--	--	--

		<p>mm/min to max loading).</p> <ul style="list-style-type: none"> <li>• Overload automatic stop, loading pump auto stop.</li> <li>• Control automatic stop (excessive control deviation reached) test stops automatically.</li> <li>• Extensometer channel for strain gauge / LVDTs based Extensometers fitted inside the machine.</li> <li>• Protective system for control electronics; filter for preventing high frequency disturbances from the power grid.</li> <li>• Software limits detection (automatically stop upon reaching limit setting value).</li> <li>• Software, designed to use with universal testing machines, conducting test for tensile, compression, bending, shear, etc. on all type of materials and products: metals i.e. steel, plastics, composites, concrete, wood, wires, ropes, fabrics, etc. To work under Windows® 32 and 64 bit operating systems.</li> <li>• Series control system</li> <li>• 8 synchronous channels for measuring strain, load cell etc.</li> </ul>		<p>1</p>			
				<p>1</p>			

		<ul style="list-style-type: none"> <li>• Multi sensor connection and calibration file section.</li> <li>• USB 3.0.</li> <li>• Ethernet connection to PC.</li> <li>• The most recent generation ALL in ONE PC with at least 32” LED display and Windows OS.</li> <li>• Protection cover for hydraulic group</li> </ul> <p><b>Tensile Test Requirements</b></p> <ul style="list-style-type: none"> <li>• Hydraulic gripping heads with wedge closing system. Maximum tension force: 1000 kN.</li> <li>• Gripping surface for samples: Maximum</li> <li>• Flat pyramid jaws for flat samples: From lowest size to min. 40mm thickness (4 set, each 4 jaws)</li> <li>• V-jaws for round samples: From lowest size to min. 40mm Ø (4 set, each 4 jaws)</li> <li>• Vertical Working space: Min. 550mm</li> </ul>		<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>4</p> <p>4</p>			
--	--	--	--	---	--	--	--

		<ul style="list-style-type: none"><li>• The working space should be enough to place a large no. of specimen and any other related assemblies to be fitted for other tests, if any.</li></ul> <p><b>Compression Test Requirements</b></p> <ul style="list-style-type: none"><li>• A complete set of compression plates, starting from a min. 12mm thickness platen to max.</li><li>• Minimum size of square / rectangular / circular platen should be 220mm with engraved circular, square and rectangular patterns for compression part of the UTM.</li><li>• Vertical Working space: Min. 500mm</li><li>• The working space should be enough to place a large no. of specimen and assemblies to be fitted for other tests.</li></ul> <p><b>Bending / Flexural Assembly:</b></p> <ul style="list-style-type: none"><li>• Three points and four points bending assembly (with all accessories);</li><li>• Should be able to test max. size specimens</li><li>• Steel manufactured body with adjustable rollers with max working space</li></ul>					
			1				
			1 Each				



		<p>i.e. tests can be done on large samples and may easily be fixed in the main machine.</p> <p><b>Shear Test Assembly:</b></p> <ul style="list-style-type: none"> <li>• Shearing test assembly (with all accessories);</li> <li>• Should be able to test max. size specimens</li> <li>• This assembly can be easily fixed into gripping heads of the testing machine.</li> </ul> <p><b>Extensometer:</b></p> <ul style="list-style-type: none"> <li>• Precision Extensometer: Self-supporting, manual clamping.</li> <li>• Measuring principle strain gauge. According to ASTM / EN applicable standards</li> <li>• LVDT Set for Crack measurements.</li> <li>• Samples dimensions: flat / round (lowest to max</li> <li>• Activation force: Min. to max.</li> <li>• Manufacturer facilities calibration includes certificate issued by laboratory, accredited by</li> </ul>		<p>1</p> <p>1</p>			
--	--	--	--	-------------------	--	--	--

		<p>ENAC.</p> <ul style="list-style-type: none"><li>• Special clamping device for samples of higher Ø.</li></ul> <p><b>Others:</b></p> <ul style="list-style-type: none"><li>• All the test results for different tests should support the requirements of <b>EN, ASTM, ISO, DIN, BS</b> etc. standards.</li><li>• The specifications of equipment/machine/assemblies should be according to <b>EN, ASTM, ISO, DIN, BS</b> etc. standards.</li><li>• The machine should be properly covered with safety protection (Front as well as Back)</li><li>• An Electric Stabilizer (Suitable for the Machine) for countering electricity fluctuation.</li></ul>					
--	--	---	--	--	--	--	--

**Financial Proposal  
Bill of Quantities (BoQ)**

**Procurement of Universal Testing Machine (UTM) 1000 kN Capacity for Civil Engineering Department of CUI Sahiwal Campus. (Tender # 140)".**

Option-I-Unit Cost in Pak Rupees with freight, packing, delivery, installation, training with all applicable taxes.

**Universal Testing Machine (UTM) 1000 kN Capacity**

Sr.N.	Item Name	Specification	Unit	Qty	Financial Proposal Quoted by the Vendor			
					Model/ Make	Currency	Unit Price	Total Price
01	<b>Servo-Hydraulic Universal Testing Machine, 1000 kN Capacity <u>(With all necessary / optional accessories)</u></b>	<p><b>Confirming to EN, ASTM, ISO, DIN, BS standards for performing tensile, compression, bending/flexural, shears tests etc. and their accuracy / calibration as per given standards for each test.</b></p> <ul style="list-style-type: none"> <li>Servo-hydraulic machine for high load universal testing for tension, compression, bending/flexural, shear tests etc. on metallic and non-metallic test pieces.</li> <li>Computer controlled and</li> </ul>	No	1	China/ Local			

**Signature & Stamp of Bidder**

		<p>closed-loop operation.</p> <ul style="list-style-type: none"> <li>• System is load control, position control and strain control.</li> </ul> <p><b>Capacity: 1000kN</b></p> <ul style="list-style-type: none"> <li>• Load measuring system: high accuracy load cell according to EN ISO 7500-1.</li> <li>• Double testing space: for performing <b>tensile, compression, bending, shears etc.</b> tests.</li> <li>• Min. 4 guiding columns of steel with hard chrome coating and 2 high precision manufactured screws drivers.</li> <li>• Power supply: Three Phase 380V+N+G, 50/60 Hz.</li> <li>• Manufacturer facilities calibration includes certificate issued by manufacturing laboratory, accredited by ENAC.</li> <li>• Digital display, stress test control, tensile test control.</li> </ul>						
--	--	---	--	--	--	--	--	--

		<ul style="list-style-type: none"> <li>• Ram stroke control (0.1 mm/min to max loading).</li> <li>• Overload automatic stop, loading pump auto stop.</li> <li>• Control automatic stop (excessive control deviation reached) test stops automatically.</li> <li>• Extensometer channel for strain gauge / LVDTs based Extensometers fitted inside the machine.</li> <li>• Protective system for control electronics; filter for preventing high frequency disturbances from the power grid.</li> <li>• Software limits detection (automatically stop upon reaching limit setting value).</li> <li>• Software, designed to use with universal testing machines, conducting test for tensile, compression, bending, shear, etc. on all type of materials and products: metals i.e. steel, plastics, composites, concrete, wood, wires, ropes, fabrics, etc. To work under Windows® 32 and 64 bit operating systems.</li> <li>• Series control system</li> <li>• 8 synchronous channels for measuring strain, load</li> </ul>						
--	--	--	--	--	--	--	--	--

		<ul style="list-style-type: none"> <li>cell etc.</li> <li>• Multi sensor connection and calibration file section.</li> <li>• USB 3.0.</li> <li>• Ethernet connection to PC.</li> <li>• The most recent generation ALL in ONE PC with at least 32" LED display and Windows OS.</li> <li>• Protection cover for hydraulic group</li> </ul> <p><b>Tensile Test Requirements</b></p> <ul style="list-style-type: none"> <li>• Hydraulic gripping heads with wedge closing system. Maximum tension force: 1000 kN.</li> <li>• Gripping surface for samples: Maximum</li> <li>• Flat pyramid jaws for flat samples: From lowest size to min. 40mm thickness (4 set, each 4 jaws)</li> <li>• V-jaws for round samples: From lowest size to min. 40mm Ø (4 set, each 4 jaws)</li> <li>• Vertical Working space: Min. 550mm</li> </ul>						
--	--	---	--	--	--	--	--	--

		<ul style="list-style-type: none"> <li>• The working space should be enough to place a large no. of specimen and any other related assemblies to be fitted for other tests, if any.</li> </ul> <p><b>Compression Test Requirements</b></p> <ul style="list-style-type: none"> <li>• A complete set of compression plates, starting from a min. 12mm thickness platen to max.</li> <li>• Minimum size of square / rectangular / circular platen should be 220mm with engraved circular, square and rectangular patterns for compression part of the UTM.</li> <li>• Vertical Working space: Min. 500mm</li> <li>• The working space should be enough to place a large no. of specimen and assemblies to be fitted for other tests.</li> </ul> <p><b>Bending / Flexural Assembly:</b></p> <ul style="list-style-type: none"> <li>• Three points and four points bending assembly (with all accessories);</li> <li>• Should be able to test max. size specimens</li> <li>• Steel manufactured body with adjustable rollers with max working space</li> </ul>						
--	--	---	--	--	--	--	--	--

		<p>i.e. tests can be done on large samples and may easily be fixed in the main machine.</p> <p><b>Shear Test Assembly:</b></p> <ul style="list-style-type: none"><li>• Shearing test assembly (with all accessories);</li><li>• Should be able to test max. size specimens</li><li>• This assembly can be easily fixed into gripping heads of the testing machine.</li></ul> <p><b>Extensometer:</b></p> <ul style="list-style-type: none"><li>• Precision Extensometer: Self-supporting, manual clamping.</li><li>• Measuring principle strain gauge. According to ASTM / EN applicable standards</li><li>• LVDT Set for Crack measurements.</li><li>• Samples dimensions: flat / round (lowest to max</li><li>• Activation force: Min. to max.</li><li>• Manufacturer facilities calibration includes certificate issued by laboratory, accredited by</li></ul>					
--	--	---	--	--	--	--	--



		<p>ENAC.</p> <p><b><u>Special clamping device for samples of higher</u></b></p> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>• All the test results for different tests should support the requirements of <b>EN, ASTM, ISO, DIN, BS</b> etc. standards.</li> <li>• The specifications of equipment/machine/assemblies should be according to <b>EN, ASTM, ISO, DIN, BS</b> etc. standards.</li> <li>• The machine should be properly covered with safety protection (Front as well as Back)</li> <li>• An Electric Stabilizer (Suitable for the Machine) for countering electricity fluctuation.</li> </ul>						
Grand Total Amount with Currency Code								
Amount in Words								
Tender Document Fee Non-Refundable (Rs. 1,000)-Bank Name, Demand Draft # and Date								

**Signature & Stamp of Bidder**

Call Deposit Receipt (CDR)-Refundable- Bank Name, CDR #, Amount and Date.	
---	--

## Technical Proposal

Annexure: II

**Procurement of Equipment for Geotechnical and Highway Engineering Labs, Civil Engineering Department, CUI Sahiwal Campus (Tender # 140)**

Option-I-Unit Cost in Pak Rupees with freight, packing, delivery, installation, training with all applicable taxes.

**Geotechnical Engineering Lab Equipment (with equivalent OR higher specifications)**

Sr.N.	Item Name	Specification	Unit	Qty	Technical Proposal Quoted by the Vendor		
					Model/Make	Currency	Quoted Specifications

**Geotechnical Engineering Lab Equipment (with equivalent OR higher specifications)**

01	Semi-Automatic Penetrometer for Liquid Limit	Confirming to CEN ISO/TS 17892-12, BS 1377:2, NF P94-052-1 standards. Penetrometer consists of: Aluminum base with leveling screws and spirit level. Chromed vertical rod with micrometric vertical displacement device. Digital readout of the penetration values. Readings in mm and inch, with 0.1 mm resolution. LCD 5 digits display with zero set in any position. Power: 1.5V battery. Equipped with a magnetic controller device with electronic digital programmable timer that automatically releases the plunger head and ensures free falling of the		1			
----	--	--	--	---	--	--	--

**Signature & Stamp of Bidder**

		<p>cone during the 5-seconds test. Slider, brass made with free fall, stops and release push button, automatic zero set. Stainless steel penetration test cone 35 mm long, 30° angle. Weight 20 g. Test cone 60° angle and 60 g weight. Two brass cups diameter 55x35 mm and 70x45 mm.</p>					
2	<b>Soil Prospecting Kit</b>	<p><b>Confirming to ASTM D420, ASTM D1452, and AASHTO T86 standards.</b></p> <p>Kit consists of: auger head diameter 80 mm. Auger head diameter 100 mm. Auger head diameter 150 mm. Dutch soil auger head, Edelman type, diameter 150 mm. Gravel auger head diameter 50 mm. Extension rod 1 m long with “T” handle. 5 extension rods, 1 m long. Soil sampler diameter 38 mm complete with stainless steel sample tube diameter 38x230 mm, jarring link, “T” handle. 5 stainless steel sample tubes diameter 38x230 mm. Plastic cap ends for sample tubes diameter 38x230 mm (12 pieces). Hand extruder for sample tube diameter 38x230 mm.</p>		1			

		Stillson wrenches (2 pieces). Wooden carrying case.					
3	Soil Lathe	Hand-operated, the height is adjustable up to 230 mm and it accepts samples from diameter 38 to 110 mm. Supplied complete with three sets of platens for samples diameter 38-50, 47-60 mm, wire saw and 6 blades.		1			
4	Cylinder Mold	Steel cylinder mould ( $\varnothing$ x height), 100x200 mm, internal surface, base, top and bottom ring are accurately machined.		10			
<b><u>Highway Engineering Lab Equipment (with equivalent OR higher specifications)</u></b>							
5	Ring and Ball Apparatus with complete accessories	<b>As per ASTM/EN standards.</b> This equipment is used to determine the temperature at which a sample of bituminous material loaded by a 9.5mm diameter steel ball drops a specified distance when heated under specified conditions. The Ring and Ball Apparatus has a magnetic stirrer with adjustable heating facility and digital display of temperature. Each unit comes with a bath of heat-resistant glass, tapered rings, ball centering guide,		5			

		steel balls, ring holder and a hot plate.					
<b><u>Highway Engineering Lab Equipment (with equivalent OR higher specifications)-Consumable Items</u></b>							
6	Neat Asphalt	100 liters 60~70 Grade (50 liters), 80~100 Grade (50 liters)		50 Liters Each			
7	Asphalt can/container (small)-Brass	2inx2in		25			
8	Bowl for heating asphalt	For Highway Lab		10			
9	Gloves for asphalt handling	For Highway Lab		50 Pairs			
10	Jackets for asphalt handling	For Highway Lab		10			
11	Catcher and Plair for asphalt can handling	For Highway Lab		10			
12	Liquid CCL4	For washing asphalt		50 Liters			
13	Gas Cylinders LPG	12kg+pipe+regulator  05kg+pipe+regulator		1 Each			
14	Thermometer	Temperature Range 10~110C 0~ 250C		5 Each			

**Financial Proposal  
Bill of Quantities (BoQ)**

**Procurement of Equipment for Geotechnical and Highway Engineering Labs, Civil Engineering Department, CUI Sahiwal Campus  
(Tender # 140)".**

Option-I-Unit Cost in Pak Rupees with freight, packing, delivery, installation, training with all applicable taxes.

**Geotechnical Engineering Lab Equipment (with equivalent OR higher specifications)**

Sr.N.	Item Name	Specification	Unit	Qty	Financial Proposal Quoted by the Vendor			
					Model/ Make	Currency	Unit Price	Total Price
01	Semi-Automatic Penetrometer for Liquid Limit	<b>Confirming to CEN ISO/TS 17892-12, BS 1377:2, NF P94-052-1 standards.</b> Penetrometer consists of: Aluminum base with leveling screws and spirit level. Chromed vertical rod with micrometric vertical displacement device. Digital readout of the penetration values. Readings in mm and inch, with 0.1 mm resolution. LCD 5 digits display with zero set in any position. Power: 1.5V battery. Equipped with a magnetic controller device with electronic digital programmable timer that automatically releases the plunger head and ensures free falling of the		1				

**Signature & Stamp of Bidder**

		cone during the 5-seconds test. Slider, brass made with free fall, stop and release push button, automatic zero set. Stainless steel penetration test cone 35 mm long, 30° angle. Weight 20 g. Test cone 60° angle and 60 g weight. Two brass cups diameter 55x35 mm and 70x45 mm.						
2	Soil Prospecting Kit	<b>Confirming to ASTM D420, ASTM D1452, AASHTO T86 standards.</b> Kit consists of: auger head diameter 80 mm. Auger head diameter 100 mm. Auger head diameter 150 mm. Dutch soil auger head, Edelman type, diameter 150 mm. Gravel auger head diameter 50 mm. Extension rod 1 m long with “T” handle. 5 extension rods, 1 m long. Soil sampler diameter 38 mm complete with stainless steel sample tube diameter 38x230 mm, jarring link, “T” handle. 5 stainless steel sample tubes diameter 38x230 mm. Plastic cap ends for sample tubes diameter 38x230 mm (12 pieces). Hand extruder for sample tube diameter 38x230 mm. Stillson wrenches (2 pieces). Wooden carrying case.		1				



3	Soil Lathe	Hand-operated, the height is adjustable up to 230 mm and it accepts samples from diameter 38 to 110 mm. Supplied complete with three sets of platens for samples diameter 38-50, 47-60 mm, wire saw and 6 blades.		1				
4	Cylinder Mold	Steel cylinder mould (Ø x height), 100x200 mm, internal surface, base, top and bottom ring are accurately machined.		10				

**Highway Engineering Lab Equipment (with equivalent OR higher specifications)**

5	Ring and Ball Apparatus with complete accessories	<p><b>As per ASTM/EN standards.</b></p> <p>This equipment is used to determine the temperature at which a sample of bituminous material loaded by a 9.5mm diameter steel ball drops a specified distance when heated under specified conditions.</p> <p>The Ring and Ball Apparatus has a magnetic stirrer with adjustable heating facility and digital display of temperature. Each unit comes with a bath of heat-resistant glass, tapered rings, ball centering guide,</p>		5				
---	---	---	--	---	--	--	--	--

		steel balls, ring holder and a hot plate.						
<b><u>Highway Engineering Lab Equipment (with equivalent OR higher specifications)-Consumable Items</u></b>								
6	Neat Asphalt	100 liters 60~70 Grade (50 liters), 80~100 Grade (50 liters)		50 Liters Each				
7	Asphalt can/container (small)-Brass	<u>2inx2in</u>		25				
8	Bowl for heating asphalt	<u>For Highway Lab</u>		10				
9	Gloves for asphalt handling	<u>For Highway Lab</u>		50 Pairs				
10	Jackets for asphalt handling	<u>For Highway Lab</u>		10				
11	Catcher and Plair for asphalt can handling	<u>For Highway Lab</u>		10				
12	Liquid CCL4	For washing asphalt		50 Liters				
13	Gas Cylinders LPG	12kg+pipe+regulator  05kg+pipe+regulator		1 Each				
14	Thermometer	Temperature Range 10~110C 0~ 250C		5 Each				

Grand Total Amount with Currency Code		
Amount in Words		
Tender Document Fee Non-Refundable (Rs. 1,000)-Bank Name, Demand Draft # and Date		
Call Deposit Receipt (CDR)-Refundable- Bank Name, CDR #, Amount and Date.		

**Note:**

- The Purchase/Work order will be awarded on the **Item Wise Basis.**
- Please clearly mention the quoted model/brand/technical detail otherwise your bid /items may be rejected.
- For all the Brands mentioned in this tender (if any), the term “equivalent or higher” is hereby added and shall be considered as per PPRA rules.
- Multiple prices of an item may lead to rejection of the item/bid.
- Interested vendors are strongly recommended to visit the Department of Civil Engineering, CUI Sahiwal Campus during office hours from 8:30 am to 4:30 pm from Monday to Friday to clear any point regarding specifications.
- Conditional proposals are not allowed.
- Civil Works if required and consumables for training purposes will be the responsibility of the University.
- The University can ask the vendor to support in customs clearance at Karachi Seaport.
- Complete Support for after sales services.

**Sheet for Evaluation of Technical Proposals of the Vendors**

<b>Srl.No</b>	<b>Evaluation Criteria</b>	<b>Provided</b>
01	<b>Literature of Quoted Brand in hard/colored form (Catalogue with Pictures)</b>	
02	<b><u>Copy of the Valid Authorization Certificate with Sign and Stamp</u></b> Original Equipment Manufacturers/Authorized distributors of the quoted brand. Certificate from the Principal/Manufacturer.	
03	<b>Warranty Coverage Certificate</b>	
04	<b><u>Undertaking about equipment</u></b> Guarantee that the Machine is genuine, brand new and non-refurbished	
05	<b>Customized Company Profile:</b> Valid NTN & GST Numbers, Proof of Name in Active Taxpayer List, Detail of Technical Staff and Facilities including Equipment and Labs, Detail of Head Office, Sub-Offices with complete detail. <b><u>Audit Reports of last two years.</u></b>	
06	<b><u>Photocopies of Purchase Orders for supply of equipment</u></b> Photocopies of Purchase Orders for Supply of equipment in <b><u>last Two Years.</u></b>	
07	<b><u>Affidavit on stamp paper of Rs.50</u></b> Affidavit on Judicial Stamp Paper (For Not Blacklisting)	
08	Original Tender Documents with sign and stamp and acceptance of all tender terms and conditions on company letterhead with the technical proposal.	