

 INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD	<b>Indian Institute of Technology Palakkad</b> भारतीय प्रौद्योगिकी संस्थान पालक्काड 678 557 <b>STORES &amp; PURCHASE SECTION</b> <b>Email: <a href="mailto:purchase@iitpkd.ac.in">purchase@iitpkd.ac.in</a></b> Telephone: 04923-226586/87 GSTIN: 32AAAI9910J1ZR
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GeM ARPTS: GEM/GARPTS/19022021/BIQIU1RA8UK5 dated 19-02-2021

**Tender No. IITPKD/CE/DPV/74/2020-21**  
**Date of Publication: 18-03-2021**  
**Date/Time of Closing: 01-04-2021, 1500 hours**

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

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
 TEST SETUP FOR HYDRO-MECHANICAL BEHAVIOUR OF REINFORCED  
 SOIL STRUCTURES**

Conforming to the specifications as in **Annexure-I**.

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 Pre-qualification, Techno-Commercial, Technical and Financial bids should be submitted in the e-Wizard portal.**

S. No.	Events	Date and Time
1	<b>Publication of the Tender Document</b>	<b>18-03-2021</b>
1	<b>Last Date/Time for submission of ONLINE Bids</b>	<b>01-04-2021, 1500 hours</b>
3	<b>Opening of Technical Bids</b>	<b>01-04-2021, 1515 hours</b>

## TERMS AND CONDITIONS

<b>1</b>	<b>GENERAL</b>	<p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p> <p>(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></p> <p>(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.</p>
<b>2</b>	<b>AMENDMENTS IN THE TENDER DOCUMENT</b>	<p>Please visit the following link for details:  <a href="https://iitpkd.ac.in/sites/default/files/purchase/01AmendmentstotheTenderDocument.pdf">https://iitpkd.ac.in/sites/default/files/purchase/01AmendmentstotheTenderDocument.pdf</a></p>
<b>3</b>	<b>COMPOSITION OF THE TENDER DOCUMENT</b>	<p>(a) The Tender Document comprises of:</p> <ul style="list-style-type: none"> <li>Instruction to the bidders including terms and conditions</li> <li>1) Technical Specifications (Annexure-I)</li> <li>2) Format for Self-Certification under Preference to Make in India (Annexure-II)</li> <li>3) Bid Security Declaration Form (Annexure-III)</li> <li>4) Undertaking by the Bidder (Annexure-IV)</li> <li>5) Fall Clause Notice Certificate (Annexure-V)</li> </ul>

		<p>(b) 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.</p> <p>(c) The bidder shall not make or cause to be made any alteration, erasure or obliteration to the text of the Tender Document.</p>
4	<b>LANGUAGE/FORMAT/SIGNING OF THE BID</b>	<p>Please visit the following link for details:  <a href="https://iitpkd.ac.in/sites/default/files/purchase/02LanguageFormatSigningoftheBids.pdf">https://iitpkd.ac.in/sites/default/files/purchase/02LanguageFormatSigningoftheBids.pdf</a></p>
5	<b>DOCUMENTS COMPRISING THE BID</b>	<p>(a) The Technical and Commercial Bids shall be submitted <b>ONLINE</b> through the portal mentioned as Cover One and Cover Two.</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 <u>DISQUALIFICATION</u>.</b></p> <p>(h) Bidders who are bidding for this tender shall,</p> <ol style="list-style-type: none"> <li>1) Should have implemented at least <b>THREE</b> orders of <b>FABRICATION OF TEST SETUP FOR HYDRO-MECHANICAL BEHAVIOUR OR SIMILAR UNITS</b> during previous THREE financial years (2017-18, 2018-19, 2019-20) to any of the reputed firms/Institutions in India. Copies of the most recent purchase orders and certificates of successful implementation must be included. Copies of financial statements or evidence of turnover must be furnished</li> <li>2) Have an Average Annual Turnover of <b>Rs. 10,00000/- (RUPEES TEN LAKHS ONLY)</b> during each of the last <b>THREE</b> financial years (2017-18, 2018-19, 2019-20). 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.</li> </ol>

		(i) Digitally signed Tender Document should be submitted in Cover One.
6	<b>EARNEST MONEY DEPOSIT (EMD)</b>	(a) The bidder shall furnish, as part of the technical bid, <b>Bid Security Declaration Form</b> as per the <b>Annexure-III</b> . (a) <b>Bids not accompanied by Bid Security Declaration Form shall be DISQUALIFIED.</b>
7	<b>PERFORMANCE SECURITY</b>	(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 sixty (60) days 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. (b) The performance security shall be a bank guarantee issued by the Scheduled/Nationalized Bank approved by the RBI or a Demand Draft favoring, INDIAN INSTITUTE OF TECHNOLOGY PALAKKAD payable at PALAKKAD. (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. (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.  Please click the following link for the Format of Bank Guarantee: <a href="https://iitpkd.ac.in/sites/default/files/purchase/11FormatofBankGuarantee.pdf">https://iitpkd.ac.in/sites/default/files/purchase/11FormatofBankGuarantee.pdf</a>
8	<b>BID PRICES AND CURRENCY</b>	(a) Prices must be quoted separately for each equipment/items identified. (b) Price quoted for equipment/items must include all costs associated with packing, transportation, insurance, delivery of equipment/items, taxes (separately), loading and unloading on DOOR DELIVERY basis to the institute including its installation, commissioning, integration and validation. (c) Prices quoted by the bidder shall be fixed during the validity of the bid. (d) <b>Prices of the equipment/items shall be quoted in Indian Rupees (INR) only.</b>
9	<b>CONFORMITY OF THE TENDER DOCUMENT</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/03ConformityoftheTenderDocument.pdf">https://iitpkd.ac.in/sites/default/files/purchase/03ConformityoftheTenderDocument.pdf</a>
10	<b>PERIOD OF VALIDITY OF BIDS</b>	(a) 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. (b) If the deadline is extended due to unforeseen circumstances, the

		bid validity shall be deemed to have extended accordingly.
11	<b>MODIFICATION AND WITHDRAWAL OF BIDSPURCHASER'S RIGHT TO ACCEPT/REJECT BIDS</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/04ModificationandWithdrawalofBids.pdf">https://iitpkd.ac.in/sites/default/files/purchase/04ModificationandWithdrawalofBids.pdf</a>
12	<b>OPENING, EXAMINATION, CLARIFICATION AND EVALAUTION OF BIDS</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/05OpeningExaminationClarificati onandEvaluationofBids.pdf">https://iitpkd.ac.in/sites/default/files/purchase/05OpeningExaminationClarificati onandEvaluationofBids.pdf</a>
13	<b>SUPPLIER'S RESPONSIBILITIES</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/06Supplier%E2%80%99sResponsibilities.pdf">https://iitpkd.ac.in/sites/default/files/purchase/06Supplier%E2%80%99sResponsibilities.pdf</a>
14	<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 FOUR weeks of signing the purchase order or within the period mutually agreed between IITPKD and supplier. All the equipment and accessories should be delivered at “Nila Campus, IIT Palakkad”.</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>
15	<b>TERMS OF PAYMENT / TAX AND DUTIES</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/07TermsofPaymentTaxesand Duties.pdf">https://iitpkd.ac.in/sites/default/files/purchase/07TermsofPaymentTaxesand Duties.pdf</a>
16	<b>PRODUCT UPGRADES</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/08ProductUpgrades.pdf">https://iitpkd.ac.in/sites/default/files/purchase/08ProductUpgrades.pdf</a>
17	<b>PENALTIES</b>	<p>(a) 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, the Supplier shall pay to IITPKD, penalties at the rate specified in the Tender Document.</p> <p>(b) IITPKD reserves the right to terminate the contract if the Supplier defaults on any of the time limits by more than FOUR weeks.</p>
18	<b>DEFECT LIABILITY</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/09DefectLiability.pdf">https://iitpkd.ac.in/sites/default/files/purchase/09DefectLiability.pdf</a>
19	<b>INTELLECTUAL PROPERTY RIGHTS, WARRANTY AND INDEMNITY</b>	Please visit the following link for details: <a href="https://iitpkd.ac.in/sites/default/files/purchase/10IntellectualPropertyRights WarrantyandIndemnity.pdf">https://iitpkd.ac.in/sites/default/files/purchase/10IntellectualPropertyRights WarrantyandIndemnity.pdf</a>
20	<b>UP-TIME GUARANTEE/ DOWNTIME PENALTY</b>	(a) The Supplier should provide up-time guarantee of 95% [24 (hours) X 7 (days) X 365 (days)] basis during the warranty period.

	<b>CLAUSE</b>	(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.
<b>21</b>	<b>LIQUIDATED DAMAGES</b>	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.
<b>22</b>	<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>
<b>23</b>	<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> <p>(c) The Supplier shall assist the institute in relocation/shifting of the equipment from the temporary campus to transit/permanent campus at free of cost and by utilizing their resources (for loading, unloading and transportation). Any such relocation/shifting shall be within <b>THREE</b> years from the date of installation of the</p>

		equipment.
24	<b>ASSIGNMENT</b>	The Supplier shall not, without the prior written consent of the IITPKD, assign to any third party, the Contract or any part thereof.
25	<b>GOVERNING LAW AND SETTLEMENT OF DISPUTES</b>	<ul style="list-style-type: none"> <li>(a) The Contract shall be governed by and interpreted in accordance with the laws of India.</li> <li>(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.</li> <li>(c) The page number should be marked in all pages serially (including all supporting documents enclosed with the tender document) and the declaration for the same shall be submitted by the bidder as in Annexure-IV.</li> <li>(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.</li> </ul>
26	<b>PROCEDURE FOR SUBMISSION OF E-TENDER</b>	<p>Please visit the following link for details:</p> <p><a href="https://iitpkd.ac.in/sites/default/files/purchase/12ProcedureforSubmissionofE-Tender.pdf">https://iitpkd.ac.in/sites/default/files/purchase/12ProcedureforSubmissionofE-Tender.pdf</a></p>

## 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. 45021/2/2017-PP(BE-II) dated 04-06-2020 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/quantity from different bidders considering price of individual/group of equipment/items or any other factors as decided by the Committee. <u>The bidder should be a Class-I / Class-II Local Supplier meeting the requirement of minimum 20% Local Content in line with the Public Procurement (Preference to Make in India) Order 2017 No. P-45021/2/2017-PP (BE-II) dated 04 Jun 2020.</u></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

Item No	Name of Experiments	Name of Equipment	Quantity	List of Components
1	Fabrication of setup for monitoring the hydro-mechanical behaviour of the soil structure		1	A. Stainless steel tank B. Reservoir for water supply C. Rainfall simulator system D. Tensiometer E. Hand compactor F. Data acquisition system G. Installation Kit

**Specification:**

The setup should consists of the following components:

**A. Stainless steel tank**

- 2 meterlength, 1.2 meter height and 0.5 meter width (excluding the thickness of frames)
- Front long side should be transparent
- One short side (right) is detachable. Detachable side should be fastened with stainless steel bolts
- Tank should have adequate supports for sensor connectors and data logger
- Frame of tank made with stainless steel angle with sufficient number of holes or similar arrangements for holding LVDT's and other connectors
- Stand for LVDT and camera should be integrated with the tank
- Tank Support should be steel support frame of 60 cm height/Tank should be supported with suitable wheel arrangement for portability
- Base of the tank should extend to an extra 30 cm (other than specified dimension)
- Base should be provided with suitable drainage pipe/arrangements near the detachable side

**B. Reservoir for water supply**

- The capacity of the reservoir for water supply should be 500L

**C. Rainfall simulator system:** Connection pipes used for the rainfall simulator system should be fitted so as to avoid any kind of sagging or pressure loss during conveyance. It should include the following components:

**i. Collection unit or tank for collecting discharge**

- The capacity for the collecting tank should be of 50L

**ii. Pressure pump**

- It should have a flow Rate of 22 Liter per minute with a maximum pressure of 1 bar
- It should have a main control valve and pressure gauge near the pump outlet
- It should have a digital flow meter at the pump outlet with a flow range of 2 to 45 Liter/minute with a maximum hydraulic pressure of  $\leq 1.75$  MPa
- Power Rating Single Phase : 0.37 to 1.1 kW (0.5 to 1.5 HP)

**iii. Spray nozzles:**

- Nozzle (full cone spray nozzle) assembly should be supported by horizontal and vertical metallic frame adjustable (sliding) in width and length (min to tank size) with attaching rods with slots along the length to adjust nozzle height
- Nozzle should be fixed with control valve and pressure gauge excluding main control valve and pressure gauge near

the pump outlet

- Simulator should have tilting and adjustable facility (Adjustable nozzle height). The height can vary up to 5 m
- Nozzle should be of material suitable for resisting abrasion, erosion and corrosion.
- Capacity of nozzle to simulate rainfall should be in the range of 0.1 mm/hour to 250 mm/hour
- Nozzle attachment fixtures should be like that so as to accommodate another type of nozzle also.
- Drop size distribution should be uniform for the entire study
- Size of drops generated by nozzle should be nearly same as of natural rainstorms.
- Spray Angle should not be less than 60 degrees. Spray distance up to 4m.
- Nozzle should have a flow rate of 0.2 to 0.7 Liter per minute and a maximum pressure of 10 psi
- Connecting pipes should be of best quality (wear and tear free, corrosion free) sufficient length to accommodate with the variable simulator frame size with sufficient supports.

**iv. Image and video acquisition camera:**

- CCD video Water proof action camera: GoPro Hero 9
  - 20 megapixel
  - 5K, 4K video recording
  - Live streaming
  - Water proof
  - Slow motion
  - Wifi/ Bluetooth enabled
- **Digital camera:** Canon PowerShot G7 X Mark III
  - 4k resolution
  - DIGIC 8 Image Processor and 2.54cm Stacked CMOS Sensor
  - 4.2 x optical zoom (24mm-100mm)
  - 30fps (Raw Burst Mode- One Shot AF)
  - 20.1 megapixel
  - 4K Video Recording (without crop)
  - Image stabilization
  - Live Streaming

**D. Tensiometer (5 No's):**

- Should measure pore water pressure in the range of -100kPa to +100kPa
- Should measure soil suction precisely with minimum disturbance in soil.
- Should be corrosion resistant
- Output signal : 500mV to 2500 mV with 1500mV at 0kPa
- Accuracy :+ or -0.5kPa
- Supply voltage :9-14VDC; 10mA
- Linearity 0.5 % FS

**E. Hand compactor:**

- For compacting soil within the tank

**F. Data acquisition system:**

- On-line data acquisition and real-time graphical and numerical display of readings
- 32-channel data acquisition with minimum 24-bit resolution (feasible for expansion)
- Minimum Data Storage of 1000 tests
- Minimum Effective sampling rate of 50 readings per second

**G. Installation Kit:**

- All fittings, tubing's and other tools required to complete the installation of the test set up and running the test.

**FORMAT FOR SELF-CERTIFICATION UNDER PREFERENCE TO MAKE IN INDIA  
(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

Format for Affidavit of Self-Certification regarding Minimum Local Content in line with “Make in India” Policy vide GoI Order no. P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

Date: \_\_\_\_\_

I/We \_\_\_\_\_ S/o, D/o, W/o, \_\_\_\_\_  
Resident of \_\_\_\_\_

Hereby solemnly affirm and declare as under:

That I will agree to abide by the terms and conditions of the Public Procurement (Preference to Make in India) Order, 2017 (hereinafter PPP-MII order) of Government of India issued vide Notification No:P-45021/2/2017 -BE-II dated 15/06/2017, its revision dated 28/05/2018 and any subsequent modifications/Amendments, if any and

That the local content for all inputs which constitute the said goods/services/works has been verified by me and I am responsible for the correctness of the claims made therein.

<b>Tick ( ✓ ) and Fill the Appropriate Category</b>	
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is equal to or more than 50% and come under “ <b>Class-I Local Supplier</b> ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under “ <b>Class-II Local Supplier</b> ” category.
<input type="checkbox"/>	I/We _____ [name of the manufacturer] hereby confirm in respect of quoted items(s) that Local Content is less than or equal to 20% come under “ <b>Non-Local Supplier</b> ” category.

For and on behalf of..... (Name of firm/entity)

Authorized signatory (To be duly authorized by the Board of Directors)

<Insert Name, Designation and Contact No.>

[Note: In case of procurement for a value in excess of Rs. 10 Crores, the bidders shall provide this certificate from statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.]

**BID SECURITY DECLARATION FORM**  
**(TO BE SUBMITTED ONLY THROUGH ONLINE MODE IN APPROPRIATE FORMAT)**

Date: \_\_\_\_\_

Tender No. \_\_\_\_\_

To (insert complete name and address of the purchase)

I/We. The undersigned, declare that:

I/We understand that, according to your conditions, bids must be supported by a Bid Securing Declaration.

I/We accept that We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am /We are in a breach of any obligation under the bid conditions, because I/We

- a) Have withdrawn/modified/amended, impairs or derogates from the tender, my/our Bid during the period of bid validity specified in the form of Bid; or
- b) Having been notified of the acceptance of our Bid by the purchaser during the period of bid validity (i) fail or reuse to execute the contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the Instructions to Bidders.

I/We understand this Bid Securing Declaration shall cease to be valid if I am/we are not the successful Bidder, upon the earlier of (i) the receipt of your notification of the name of the successful Bidder; or (ii) thirty days after the expiration of the validity of my/our Bid.

Signed: \_\_\_\_\_ (insert signature of person whose name and capacity are shown)  
in the capacity of \_\_\_\_\_ (insert legal capacity of person signing the Bid Securing Declaration)

Name: \_\_\_\_\_ (insert complete name of person signing the Bid Securing Declaration)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder)

Dated on \_\_\_\_\_ day of \_\_\_\_\_ (insert date of signing)

Corporate Seal (where appropriate)

(Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid)

**Note:****This letter should be on the letterhead of the quoting firm and should be signed by a Competent Authority. Non-submission of this will lead to **DISQUALIFICATION** of bids.**

**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 DEVIATION from the Tender Terms and Conditions.

**We here by accept that the PRICES OF THE EQUIPMENT/ITEMS QUOTED IS IN INDIAN RUPEES ONLY (INR). I am aware that if the price is not in INR, the application shall be summarily rejected.**

We hereby accept and certify that the **Unit Price quoted in the Commercial Bid / BoQ Commercial, covers the entire STANDARD WARRANTY period indicated in the BoQ Commercial. No Additional Prices shall be quoted for the STANDARD WARRANTY period. I am aware that the Bid shall be rejected outright in case of non-compliance with the above.**

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).

**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.**