

NOTICE INVITING TENDERS

Tender No.: SRMIST/Civil/NTTM - 04/2024-25/01

Date: 07.02.2025

SRMIST, Department of Civil Engineering, invites Tender in Two Bid Systems (Technical and Commercial) from Resourceful and Reliable Suppliers/Vendors for the Supply and Installation of Equipments/Machines for NTTM (Government of India), Funded Project.

Interested may view and download detailed tender documents from SRMIST's website <https://srmist.edu.in/>. Tender can be submitted on or before due date along with necessary documents submitted in hard copy in sealed cover to Department of Civil Engineering, SRM Institute of Science and Technology, Kattankulathur – 603 203, Tamil Nadu.



Registrar, SRMIST

Registrar

SRM Institute of Science and Technology

SRM Nagar, Kattankulathur - 603 203

Chengalpattu Dist, Tamilnadu, India.

BID DOCUMENT

Notice Inviting Tender No.	SRMIST/Civil/NTTM -04/2024-25/01
Name of the Work	Supply and Installation of the Cyclic Triaxial Equipment – Soil - Geotextile
Other Terms (Vendor has to submit the required documents after installation)	<ol style="list-style-type: none"> 1. Knowledge transfer and training should be provided to the faculty. 2. Include the machine/equipment instruction manual (in English) and the circuit/block diagram in English. 3. The Standard Operating Procedure (SOP) manual to be supplied.
Annual Maintenance Contract	Minimum 2 years after warranty period of 2Year in total4 years
Technical Specification	Annexure-A
Tender Creation Date and Time	07.02.2025 and 10:00 a.m.
Bid Type	Two Bid System - Technical & Commercial
Earnest Money Deposit (EMD)	Nil with Bid Security Declaration (Annexure-B)
Financial Bid	Annexure – C
Manufacturing Authorization Form (MAF)	Annexure – D
Mandate Form	Annexure – E
Non-refundable Tender Processing fee (inclusive of GST @ 18%)	₹ 1,180/-
Tender Closing Date and time	01.03.2025 and 02:00 p.m.
Technical Bid Open Date and time	01.03.2025 and 02:00 p.m..
Cost Bid Open Date and time	03.03.2025 and 02:00 p.m..

QUALIFICATION CONDITIONS

- Bidder should be authorized supplier/service provider of the quoted item/work and should submit the relevant documents/certificates.
- Bidder should have experience of supplying such items and will have to furnish details of previous supplies.

BID PRICE

- Bid must be valid for a period of three months from the closing date of tender.
- All duties, taxes and other levies including the transportation expenses are payable by the Supplier/Agencies/Company under the contract and shall be included in total price.

BID EVALUATION

- The purchase committee of SRMIST, KTR will evaluate and compare bids that confirms to terms and conditions, specifications, and quality parameters.

DELIVERY PLACE

- Bidder has to supply and deliver the materials in requisite number at the office of **Department of Civil Engineering, SRM Institute of Science and Technology, Kattankulathur – 603 203, Tamil Nadu.**

OTHER TERMS AND CONDITIONS

- No payment will be made for any damage of goods supplied.
- The purchase committee of SRMIST reserves the right to reject the offer of one or all the tenderers without assigning the reason thereof.
- Bidder should submit the following details as Annexure while placing the bid,
 1. Manufacture's specification sheet/catalogue
 2. Delivery period
 3. Payment detail
 4. Warranty detail
 5. Availability of after sales service (AMC)

INSTRUCTIONS FOR OFFLINE BID SUBMISSION

This tender document has been published on the <https://srmist.edu.in/> portal for inviting the tenders from eligible Suppliers/Vendors.

OFFLINE SUBMISSION -- The bid should be submitted only in **OFFLINE**.

- a. The cover should contain all the prime eligibility documents along with fees towards the cost of the tender document and all pages of the tender document with the signature of the tenderer and it should be PVC/WAX sealed.
- b. The envelopes should be scripted at the top of the cover as **"NTTM – SUPPLY OF GEOTEXTILE EQUIPMENT"**.
- c. The financial bid document should be removed from the tender document and covered with a sealed envelope with the name of the tenderer, scripted at the top as **"FINANCIAL BID FOR NTTM – SUPPLY OF GEOTEXTILE EQUIPMENT"**.
- d. The completed tender forms along with the enclosures and the sealed cover containing the financial bid should be submitted in ONE cover and addressed to

**The Head of the Department,
Department of Civil Engineering,
SRM Institute of Science and Technology,
Kattankulathur,
Tamil Nadu – 603 203**

- e. The sealed envelope should be submitted by Speed Post/Registered Post with acknowledgement due/courier (OR) in person at the reception of Department of Civil Engineering, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu Dt., Tamil Nadu – 603 203 on or before the due date and time.

Technical Bids will be opened as per the schedule given on critical dates in the presence of bidders or their authorized representatives. If the opening date happens to be a closed day/holiday, the tender will be opened on the next working day. Only one authorised representative from the firm shall be allowed to participate in the opening of technical bids/price bids.

The Details of the GEOTEXTILE LABORATORY EQUIPMENT DEDICATED TO ACADEMIC ACTIVITIES are furnished below:-

Sl.No.	NAME OF THE GEOTEXTILE LABORATORY EQUIPMENT DEDICATED TO ACADEMIC ACTIVITIES
1	Cyclic Triaxial Equipment – Soil - Geotextile

EARNEST MONEY DEPOSIT

- The 2% of Earnest Money Deposit (EMD) for the quoted amount as mentioned in the Notice Inviting Tenders (NIT) should be paid and enclosed with the Bid documents.
- EMD shall be deposited in the form of a Demand Draft drawn in favour of SRM Institute of Science and Technology, / BANK GUARANTEE in favour SRM Institute of Science and Technology issued by any Nationalized Bank valid for 210 days from the date of NIT.
- The DD/BG for the EMD amount in original should be attached to the Tender document.
- No other mode of payment for EMD will be accepted.
- Tenderer who are registered with NSIC/MSME authorities for the tendered service/item is exempted from the payment of EMD on the production of a self-attested copy of the certificate issued by NSIC/MSME.**
- The EMD will not carry any interest while it is in the custody of SRM Institute of Science and Technology, Kattankulathur.
- The EMD will be refunded to the successful/unsuccessful tenderers after the finalisation of the Tender. The EMD paid in the form of BG will be returned to the successful tenderer on payment of SD, execution of the agreement, and finalisation of the Tender.
- The EMD will be refunded to the unsuccessful tenderer after the finalisation of the Tender.
- The EMD will be forfeited if the successful tenderer does not supply the GEOTEXTILE LABORATORY EQUIPMENT DEDICATED TO ACADEMIC ACTIVITIES equipments / machines within the stipulated time.
- The EMD will be forfeited if the tenderer withdraws the tender within the validity period of the bid.

SEARCHING FOR TENDER DOCUMENTS

Bidders can search for the tenders upon clicking <https://srmist.edu.in/> scrolling on the institution web page and Civil Engineering Department page <https://www.srmist.edu.in/departments/departments-of-civil-engineering/>

PREPARATION OF BIDS

1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bids. Any deviations from these may lead to rejection of the bids.
3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document.
4. The price bid format is given for ready reference only.
5. The price bid format in may also be downloaded from tender website.

SUBMISSION OF BIDS

1. Bidder should be in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. Bidders are requested to note that they should necessarily submit their financial bids.
3. Technical bid should not include any financial information. Technical bid containing financial information shall be declared non-responsive and shall be disqualified.
4. The offer/bid shall be submitted in two bid systems (i.e.) Technical bid and Price bid. The technical bid shall consist of all technical details along with commercial terms and conditions. Price bid also should be submitted.
5. Bidder should consider any addendum/corrigendum published on the tender document, on the relevant website, before submitting their bid.

ASSISTANCE TO BIDDERS

Any queries relating to tender document and the terms and conditions contained therein should be addressed to the tender inviting authority for a tender or the relevant contact person indicated in the tender. The email-id for the Help Desk is:
hod.civil.ktr.et@srmist.edu.in / sathyanr5@srmist.edu.in

ACCEPTANCE AND REJECTION

SRM Institute of Science and Technology, Kattankulathur reserves the right to accept/reject any or all tenders and accept the whole or any part of the tender without assigning any reason. A tender that does not fulfil any of the terms and conditions of the tender or with incomplete documents in any respect will be rejected summarily.

GENERAL INSTRUCTIONS TO THE BIDDERS

1. In the technical bids, the bidders are required to submit the necessary documents along with all annexures.
2. The enlistment of the vendors should be valid on the last date of submission of tenders.
3. Bidder must read the terms and conditions of tender carefully. He/She should only submit his tender if he considers himself eligible and he is in possession of all the documents required.
4. The Bidder should have a valid License/Registration, GSTIN No., PAN Number, Bank Account and registered office in India.
5. The Bidder should not have been blacklisted by any Govt. Dept./Semi-Govt./Dept. or any other organization.
6. Information regarding experience in the Supply & Installation of the same/similar Equipments/Machines in India. Documentary Evidence to be supported by Purchase Orders and Project/installation completion certificates.
7. Bidders shall have sufficient manufacturing capacity /tie-ups and should have the after-sales support infrastructure.
8. **The rates quoted shall be inclusive of charges such as Insurance, transportation, installation, and training for the staff and all other taxes (including GST). Nothing extra shall be paid over the quoted rates.**

EVALUATION CRITERIA AND FINAL SELECTION

- 1) The committee constituted by the Registrar, SRM Institute of Science and Technology will examine the technical documents and decide the suitability as per the requirements of SRM Institute of Science and Technology and the terms and conditions of the tender. Only the technical bids of the firms, which meet the qualification criteria, would be taken up for detailed evaluation.
- 2) The technical committee will visit to verify the capacity and capability of the bidders to assess the performance of similar Equipments/Machines supplied by them.

- 3) Selection of the bidders shall be based on a weighted criteria system to be derived from the submitted tender documents, experience etc., In the case of non-fulfilment of minimum pre-qualification criteria of the technical bid, the bid of the respective bidder shall be rejected. The competent authority will decide regarding the selection of Contractors.

SECURITY DEPOSIT

- 1) The successful Bidder including NSIC/ MSME registered firms should remit a **Security Deposit equivalent to 10 % of the awarded amount** for the Equipments /Machines supplied for One year within five days from the date of receipt of the communication by the Bidder.
- 2) This security deposit is payable in the form of a Term Deposit Receipt (TDR) / Bank Guarantee issued by a Nationalized / Scheduled Bank and it should be for twelve months. Failure to pay the security deposit within the specified time will entail the forfeiture of EMD and also the rejection of the tender.
- 3) The security deposit will not carry any interest while it is in the custody of SRM Institute of Science and Technology.
- 4) The Security deposit will be returned **after 12 months after the successful completion of the supply, installation, and training to the staff** and there is no liability on the part of the Bidder to SRM Institute of Science and Technology.
- 5) The Security deposit will be forfeited in the following circumstances.
 - a) In case any document is found false / forged at any stage, the Security deposit will be forfeited.
 - b) If the contract is terminated by the SRM Institute of Science and Technology due to the supply of poor quality Equipments/Machines or negligence/misbehavior / bad act of the contractor /his personnel or non-observing of the provisions stipulated in the contract, the Security deposit shall be forfeited.
 - c) If the contractor is found violating any law/rule related to the supply of the Equipments/Machines and a report in this regard is received from the competent authority indicating the contractor for violation of any law/rule, the security deposit shall be forfeited without prejudice to any other action as per provisions of the contract.
 - d) If the contractor fails to supply the Equipments/Machines within the time limit specified, the penalty for delay shall be recovered from the Security deposit.
 - e) The assessment of recoveries made by the Registrar, SRM Institute of Science and Technology shall be final and binding on the contractor.

AGREEMENT:

- a. The successful tenderer will be required to execute an agreement in a Non-judicial stamp paper of appropriate value within the time frame stipulated by SRM Institute of Science and Technology, Kattankulathur.
- b. The SRM Institute of Science and Technology reserves the right to add/delete/modify the clauses in the agreement.
- c. Failure of the successful bidder to comply with this requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security (EMD) in which event the SRM Institute of Science and Technology, Kattankulathur may make the award to any other bidder, at the discretion of SRM Institute of Science and Technology, Kattankulathur or call for new bids.

PERIOD OF CONTRACT:

- a) The supply of the Equipments/Machines should be completed within 30 days from the date of issue of the purchase order.
- b) Extension/non-extension will be the sole discretion of the authority and the Contractors cannot assume extension as their right.

TERMINATION OF CONTRACT:

- 1) The competent authority reserves the right to terminate the contract at any time without assigning any reason if it appears to the authority at any point of time that the services based on the quality of the Equipments /Machines
- 2) At any time during the period of the contract, if it comes to the notice of the SRM Institute of Science and Technology that the contractor has misled this office by way of giving false/incorrect information which has been material in the award of the contract, the contract shall be liable to termination without any notice besides other legal action as per law. Further, in case of any breach, the contract can be terminated without any notice.

SPECIAL TERMS & CONDITIONS

- a) The contractor shall take all precautionary measures to avoid any damage to adjoining property while installing the Equipments / Machines. All necessary arrangements shall be made at his own cost.
- b) SRM Institute of Science and Technology reserves the right to make any change, omission, additions (or) alterations to the original specifications of the Equipments/Machines. Such changes, omissions, and substitutions shall be deemed to have been formed as work included in the original tender and the contractor shall be bound to carry out the work/adhere to the supply order.
- c) **The Period of warranty for the Equipments / Machines will be for One Year.**
- d) The Contractor shall extend Post Supply Support to the Institute in maintaining the Equipments/Machines.



Annexure A

TECHNICAL SPECIFICATION

Cyclic Triaxial Equipment – Soil - Geotextile

Dynamic / Cyclic Triaxial Testing System, 10kN/5Hz with UNSAT(HKUST), Bender Element Testing

Reference Standards: ASTM D-3999-91, ASTM D-5311, ASTM D-2850, ASTM D-7181, BS 1377-8

SPECIFICATIONS

1. Load Frame
2. Pressure Volume Controller
3. Dual Channel Pneumatic Pressure Controller
4. Load Cell-10kN
5. Pore Pressure Transducer
6. Triaxial Cell for testing 38mm & 50mm Dia Samples
7. Software for Cyclic Triaxial Testing
8. Unsaturated Triaxial Testing attachment for Soil-HKUST Method
9. Vertically Propagating Bender Element S- Wave Transmitter /P-wave Receiver 50mm
10. Vertically Propagating Bender Element P- Wave Transmitter /S-wave Receiver
11. Bender Element software
12. Accessories for Test

LOAD FRAME

Load frame with beam mounted with Highly accurate dynamic electro-mechanical actuator, Stroke 100mm, With built-in encoder to measure Displacement, Axial load: +/- 10kN, Axial Displacement Encoder, Displacement resolution : 1 Micron, Frequency: 0-5Hz, , Closed Loop Control Frequency :16KHz

TRIAXIAL CELL:

For test specimens up to 100mm, Banded Acrylic Cell chamber, Hard Anodised, Cell wall: Transparent Perspex material. Cell base pedestals and top caps: **hard-anodised aluminium**. Top cap with dimple and back pressure connection & extension top cap with stud for connection to load cell & vacuum connection, Special low friction seals and linear ball bearing for dynamic testing, Hydraulic ports & valves: 05, Cell pressure: Maximum pressure 2000 kPa

PRESSURE/VOLUME CONTROLLER

a) Pressure Volume Controller

Pressure range: 1MPa, Volume: 200cc Accuracy of pressure: 0.15% full range, Accuracy of volume: 0.25% full range, Pressure resolution = 0.1Kpa, Volume resolution = 1cu.mm, PC & stand-alone control of Pressure and Volume, Automatically protected against pressure, and volume over-ranges , Including USB computer interface, Includes keypad and display for stand-alone control

b) Dual Channel Pneumatic Pressure Controller

Pneumatic Pressure controller for Cell Pressure with output for input to a data acquisition system , Independent control of Two air pressure channel, Maximum pressure 1000kPa, With RS232 interface



LOAD CELL:

10kN internal submersible load cell, Accuracy 0.1% of Full Range Output (FRO) ,Temperature -20°C to 80°C

a) PORE PRESSURE TRANSDUCER

1MPa Pore Pressure Transducer, Accuracy 0.10% of Full Range Output (FRO)

b) Digi Remote Feedback Module (RFM)

Suitable Digi RFM to be used with Standard Controller, Allows real-time low-latency digital control running at 500Hz, Precision Ratiometric Transducer Excitation, Balanced Differential Low-Noise Analog Input Stage, 24 bit acquisition (>16.7 Million counts)

SAMPLE SIZE

For Triaxial test and UNSAT(HKUST) test: 38mm , 50mm dia, 70mm dia & 100 mm dia sample

DATA LOGGING AND ACQUISITION SOFTWARE

Data logging channels: 4, Data acquisition (A/D) resolution per channel: 16 bit, Synchronisation link for controllers, high speed USB interface, 500Hz log rate, Dongle for Data Acquisition

Analysis & Processing Software

Velocity controlled UCS test, Standard Saturation and Consolidation Module B check, saturation ramps of cell pressure and back pressure, isotropic consolidation, Standard Triaxial Testing Module: UU, CU, CD with pore pressure measurement, Advanced Loading Module: Load control low frequency cyclic loading, Independent control (constant ramp cycle) of axial stress, axial strain or axial load, radial stress, back pressure,

Advanced Dynamic Cyclic Triaxial Testing Module

High Speed Dynamic/Cyclic Triaxial testing with high-speed data acquisition, Dynamic/Cyclic control of load, Dynamic/Cyclic control of displacement, Dynamic ramps, Static cell and back pressure control, Dynamic cell pressure control

UNSATURATED TRIAXIAL TESTING OF SOIL- HKUST (Hong Kong University of Science and Technology) -Method B

HKUST Inner cell & required connections for UNSAT testing of 70mm dia. Sample, Differential Pressure Transducer(DPT) range: +/- 1.5kPa (+/- 150mm of water head, DPT accuracy:<0.5% of full range output(FRO), Operational resolution of volume change measurement (16 bit resolution): <10mm³, Accuracy of volume change measurement: estimated at 32mm³ or 0.04% volumetric strain for a triaxial specimen 38mm x 76mm, 12-port transducer access ring to accept inner cell

UNSAT Software Module

Desaturation ramps, Stress Dependant Soil-water characteristic curve (SDSWCC), Drained test saturated conditions, Drained test unsaturated conditions, Four-dimensional linear control paths (axial stress, radial stress, pore air pressure, pore water pressure)

Bender Element with Titanium element Inserts.

- a) Vertically Propagating Bender Element S- Wave Transmitter /P-wave Receiver 50mm
- Base pedestal for bender element inserts of 50mm with
 - Insert for top cap comprising cylindrical **Titanium insert** with encapsulated element (nominal 20mm diameter x 22mm height)
 - Operating Temperature: -10°C to 50°C
 - Maximum Pressure Rating: 3.5MPa



- b) Vertically Propagating Bender Element P- Wave Transmitter /S-wave Receiver:
- Top cap for bender element inserts of 50mm with single drained Perspex top cap, stainless rear seal plate, sintered bronze porous disc, hydraulic drain connector.
 - Insert for top cap comprising cylindrical **Titanium insert** with encapsulated element (nominal 20mm diameter x 22mm height)
 - Operating Temperature: -10°C to 50°C
 - Maximum Pressure Rating: 3.5MPa
- c) Bender Element Master Signal Conditioning Unit v3 for use with 1 pair of bender elements.
- Data Acquisition Speed : 500kHz up to 125MHz
 - Amplification of source and received signals (P and S-wave): 11 user controlled hardware gain levels from $\pm 1\text{mV}$ to $\pm 2\text{V}$, with auto gain range selection
- D) Bender Element software
- Software to control data acquisition and driving signal generation for P-wave and S-wave Velocity tests
 - Vertically propagating horizontally polarised (vertical elements)
 - Horizontally propagating horizontally polarised (horizontal elements)
 - Horizontally propagating vertically polarised (horizontal elements)
 - Generation of single or repeated sinusoidal
 - Square and user defined wave forms
 - Control of sampling rate and data handling, data display and analysis

Accessories

a) Hydraulic Installation kit

b) Test specimen preparation kit for 38, 50 , 70mm & 100mm diameter samples Including

- 3-part split former
- 2-part split mould - For trimming the ends of cohesive samples
- Suction sleeve stretcher
- 100 membranes
- 30 rubber o-rings
- 10 porous discs
- Soil Lathe

c) Single Phase Isolating Transformer

- Single Phase Isolating Transformer 230V UK
- Primary: 230v input, 230v output 50/60Hz
- Rating: 2kVA continuous
- Style: Enclosed in an IP44 portable sheet case with 3m input cable on the input and asingle 13A BS1363 socket on the output.
- Earthed electrostatic screen between primary and secondary windings.
- Size: W-255mm x 285mm X 273mm

d) Suitable Laptop and Printer

Annexure B

(To be submitted by bidder on its Company Letterhead)

It is here by submitted that if I/We(Name of bidder/firm/company) withdraw or modify the bids during period of validity, or if I/We..... (Name of bidder/firm/company) are awarded the contract and I/We.....(Name of bidder/firm/company) fail to sign the contract or to submit a performance security before the deadline defined in the tender documents, I/We(Name of bidder/firm/company) will be suspended to take part in SRMIST's tendering process for the period of two years from the date of occurrence of the above mentioned default."

Date :

Authorized Signatory



Annexure C

FINANCIAL BID

("FINANCIAL BID FOR NTTM – SUPPLY OF GEOTEXTILE EQUIPMENT")

Sl. No.	NAME OF THE GEOTEXTILE EQUIPMENT	(in Figures)	(in Words)
1			
2			

Signature of Tenderer/Authorized Signatory :

Name of the Tenderer :

Seal of the Tenderer :

Address :

Note: -

(if there is any discrepancy in figures and words in the quote, the rate quoted in words shall prevail)



Annexure D

**ORIGINAL EQUIPMENTS / MACHINES MANUFACTURER (OEM)
Manufacturing Authorization Form (MAF)**

(On Letter Head of Manufacturer)

Ref. No:

Date:

To

**THE HEAD OF THE DEPARTMENT,
DEPARTMENT OF CIVIL ENGINEERING,
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY,
KATTANKULATHUR – 603 203,
TAMIL NADU.**

We manufacturers of Original Equipment / Machinery at _____
do hereby authorize (M/s. Name and address of the agent) to submit an offer against
the Tender for the supply of (Name of the Equipments / Machinery)

M/s. _____ is authorised to submit the bid and conclude
the contract regarding business.

We hereby extend our full guarantee and warranty for the goods offered by the above
firm. The dealer is associated with us from the period _____ to

Yours faithfully,

(Signature)

Name and seal of the Manufacturer.



Annexure E

MANDATE FORM

**ELECTRONIC CLEARING SERVICE (CREDIT CLEARING)/REAL TIME GROSS SETTLEMENT
(RTGS) FACILITY FOR RECEIVING PAYMENTS**

DETAILS OF ACCOUNT HOLDER:-

NAME OF THE ACCOUNT HOLDER	
COMPLETE CONTACT ADDRESS	
TELEPHONE NUMBER//E-MAIL	
GST Number	
PAC Card Number	

BANK ACCOUNT DETAILS:

BANK NAME	
BRANCH NAME WITH COMPLETE ADDRESS	
TELEPHONE NUMBER AND E-MAIL	Bank Ph. No : E-mail :
IFSC CODE	
IS THE BRANCH ALSO NEFT ENABLED	YES / NO
TYPE OF BANK ACCOUNT(SB/CURRENT)	SAVINGS ACCOUNT / CURRENT ACCOUNT
BANK ACCOUNT NUMBER	
MICR CODE OF THE BANK	