# University College of Engineering and Technology Karni Industrial Area, Pugal Road, Bikaner-334004 INVITATION LETTER

Package Code: TEQIP-III/RJ/gceb/25 Package Name: GEOTECHNICAL Lab Equipments/Machines Date: 04-Jul-2019 Method: Shopping Goods

To,

## Sub: INVITATION LETTER FOR GEOTECHNICAL Lab Equipments/Machines

Dear Sir,

1.

You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)	
1	Automatic Proctor Test Apparatus	1			
2	Hydrometer with high 4 speed stirer				
3	Speedy Moisture meter	2	University College of	SITC in Civil	
4	Computerized microprocessor controlled Triaxial	1			
5	Plate load test	1	Technology, Bikaner	UCET Bikaner.	
6	Dessicator	2			
7	Pycnometer	10			
8	Unconfined Compression Test Specimen Mould	2			
9	Neon Bulb Drier 3				

10	Weight Balance (30 kg)	3
11	Weight Balance (100 kg)	1
12	Swelling Pressure	1
13	Static Cone Penetrometer	1
14	Ejector used to extract soil	1
	sample from proctor	
	mould	

Government of India has received a credit from the International Development Association (IDA) towards the cost of the Technical Education Quality Improvement Programme [TEQIP]-Phase III Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

## 3. Quotation

- 3.1 The contract shall be for the full quantity as described above.
- 3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 3.4 Applicable taxes shall be quoted separately for all items.
- 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- 3.6 The Prices should be quoted in Indian Rupees only.
- **4.** Each bidder shall submit only one quotation.
- 5. Quotation shall remain valid for a period not less than 55 days after the last date of quotation submission.
- **6.** Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
  - 6.1 are properly signed; and
  - 6.2 Confirm to the terms and conditions, and specifications as per Annexure-I
- 7. The Quotations would be evaluated for all items together.
- 8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.
  8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any

quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.

- 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.
- 9. Payment shall be made in Indian Rupees as follows:

#### Satisfactory Acceptance - 100% of total cost

- Liquidated Damages will be applied as per the below:
   Liquidated Damages Per Day Min % :0.01
   Liquidated Damages Max % : 10
- 11. All supplied items are under warranty of **36** months from the date of successful acceptance of items and AMC/Others is **NA**.
- 12. You are requested to provide your offer latest by 12:00 hours on 20-Jul-2019. Quotations received will be opened on same day at 13.00 hours.
- 13. Detailed specifications and special terms & Conditions of the items are at Annexure I.
- 14. Training Clause (if any) As per Annexure I
- 15. Testing/Installation Clause (if any) SITC in Civil Engineering Department of UCET, Bikaner
- 16. Performance Security shall be applicable: 05 %
- 17. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
- 18. Sealed quotation to be submitted/ delivered at the address mentioned below, University College of Engineering and Technology, Karni Industrial Area, Pugal Road, Bikaner-334004
  - 19. We look forward to receiving your quotation and thank you for your interest in this project.

(Nodal Officer – Procurement) UCET, Bikaner

# Annexure I

Sr. No	Item Name	Specifications
1	Automatic Proctor Test Apparatus	As per IS: 2720 (Part 7 & 8), Equipment must be automatic type motor driven with two different rammers of 2.6 Kg and 4.9 Kg for light and heavy compaction in soil in 100mm and 150 mm dia moulds. Mild steel moulds to be supplied along with the equipment. The drop of weight should be adjustable to 310mm or 450 mm height with locking arrangement. The equipment must have provision to set number of blows per test at the beginning of each test. Must be suitable to work on 220V, 50 Hz, Single phase AC supply.
2	Hydrometer with high speed stirer	As per IS 2720 (Part 4) Should have: Andreasen Pipette Stand with andreasen pipette and sedimentation tube Plummet Balance-with graduated scale (0-100) and other standard accessories as per IS code High Speed Stirrer with baffle and dispersion cup, operation at 220V, 50 Hz, Single Phase. Hydrometer Range: 0.995 to 1 (no. 2) Glass measuring cylinders (no. 04) - 1000 ml Thermometer: range -50 to $-280$ °C (Digital) Glass stirring rod (6-8 mm dia.) $-2$ Nos.
3	Speedy Moisture meter	As per IS: 2720 (Part II), IS: 12175 Should be supplied with Digital weighing balance-40 to 60 grams-1 No., moisture gauge with range between 0-50% with gauge division of around 1% - 1 No. Sufficient Quantity of Calcium Carbide Reagent- and standard accessories like brush, steel balls, dish (aluminium) scoop etc1 each, The setup should be in form of kit for ease of carrying it to site.
4	Computerized microprocessor controlled Triaxial	As per IS-2720 (Part-XII and Part XI) Load Frame : - Motorized, with minimum 34 speeds (Rate of strain (speed) should be 0.0048 to 6mm/min with true speed upto 5mm/min), should be suitable for Triaxial, UCS and CBR, two pillar type with sliding top load bracket allowing locking at any desired height, the loading part should be detachable form the main unit, with digital Led Display with Microprocessor Based Closed loop feedback control , operation at 220 volts, 50Hz, single phase supply Specimen size : - 38mm, 50mm, 75mm & 100mm diameter Triaxial Cell: - Should be capable of testing specimens of 38, 50, 75 and 100mm diameter and should be supplied with all standard accessories- plain discs (38-100mm dia.)-1 each, Perspex loading pads (38-100mm dia.)-1 each, porous stones (38-100mm dia.)-1 each, Pedestal (38-100mm dia.)-1 each, top loading pads-plain (38-100mm dia.)-1 each, top loading pads-plain (38-100mm dia.)-1 each, top loading pads-plain (38-100mm), O-rings (38-100mm dia.)-1 each, top loading pads-plain (38-100mm), 0-rings (38-100mm dia.)-8 each, drainage tubes both short and long (38-100mm)-4 each. Pressure control System: - Constant Pressure System-Oil water Type-with oil pump to maintain the desired pressure, 8 to 10 kg/ cm 2 pressure range with accuracy between $\pm 1\%$ to $\pm 2\%$ and preferable resolution of at least 0.1 kg/ cm 2, Should allow increasing or decreasing the pressure within the specified range, Operation on 220V, 50 Hz, Single Phase AC Supply. System for automatic measurement of volume change: - Should have a volume chamber-100ml capacity and bottom chamber-100ml capacity, with change over valve tp allow the internal pistons to move in opposite direction in case the volume exceeds 100cc. Accuracy between 1-2 ml. Should be supplied with push fittings (4 mm). Should be usable with LVDT. Digital Indicator/ Display: - Alpha numeric display for all simultaneous channel, operation on 220V, 50Hz, Single Phase Load cell Capacity: - 10kN (with resolution : 0.01kN) Displacement Transducer: -LVDT 0 to

		Pressure Transducer: - 20 Kg/cm 2 capacity, (maximum overload capacity up to 150% (of rated)- it should be specified while quoting), resolution $-0.01$ Kg/cm 2 Data Acquiring/Acquisition System : - Should be windows compatible. Software should also be supplied along with the whole setup for analysing the standard three types of Triaxial tests. The standard three types of Triaxial tests.
5	Plate load test	As per IS 1888 Square shape Plain Bearing Plates (Preferably MS Made) with sizes 300mm, 450mm, 600mm, 750mm and thickness between 23-25mm -1 each Top End Plate 50mm diameter with male thread for rod fitting and adjusting of dial gauge-4Nos. Base plate (preferably magnetic) with female thread-4 Nos. Datum Bars-2 Nos. Columns-150 mm diameter and 250mm long- 2 Nos. Column-150 mm diameter and 500mm long- 1 No. High Pressure Pipe (preferably metallic) at least 5m long-1No. Ball and Socket Arragement-1No. Extension Rods for taking dial gauge readings-16 Nos. Spikes (for Anchor) -10 Nos. Quick Release Clamp for dial gauges brackets Dial gauges – 25mm travel with 0.01mm least count-4 Nos. Hand Operated Hydraulic Jack-50,000 Kgf-1No. Hydraulic Pump - Hand Opertaed-50,000 Kgf-1No. with 200mm Diameter load Gauge
6	Dessicator	Non vacuum type 20 mm dia. Glass
7	Pycnometer	As Per IS:2720 Part-III Specific gravity Bottle : 100ml capacity Pycnometer (Should be as per IS: 2386 Part-III)
8	Unconfined Compression Test Specimen Mould	The equipment must be in compliance with IS 2720(Part 10) and AASHTO T208 to determine the unconfined compressive strength of soils. The equipment must be able to place the specimen in loading frame and constantly provide Axial Load until peak load failure is obtained. Loading capacity of the frame should be 50 KN with 3 speed for rate of loading Dial guage 25mm travel with 0.01 mm least count must be supplied with the equipment. Split mould 38mm dia X 76 mm long to be provided with ribber sheath for for 38 mm dia specimen. Proving ring of capacity 2 KN to be provided with high sensitivity along with plain platen with adapter and steel ball
9	Neon Bulb Drier	Replacement light bulbs on the inside of the dryer. 220 voltage capacity.
10	Weight Balance (30 kg)	Following Electronic weighing balances must be supplied: - Electronic Balance with Capacity 600g x 0.01g - 1 No. Electronic Balance with Capacity 3000g x 0.1g - 1 No. Electronic Balance with Capacity 20kg x 2g - 1 No.
11	Weight Balance (100 kg)	Maximum Capacity 100 Kg with least count 10 grams and PAN size 500X500 mm
12	Swelling Pressure	The equipment must be able to determine the swelling pressure developed by soil specimens moulded to desired densities at known moisture contents, when soaked in water. The load must be applied to restrain the swelling transferred on to a load measuring proving ring through a perforated swell plate and a load transfer bar. The proving ring must be attached to the lead screw of hand operated load frame. A soaking tank to be provided for saturating the specimen and the base of the mould to be provided with channels and radial grooves with connecting holes. The equipment must be supplied with Load Frame, Hand operated, Capacity 5 kN, Mould 100 mm dia x 127.3 mm height(1,000 ml volume) with base plate and collar, Proving Ring, 2.5 kN capacity, Dial Gauge 25 mm travel,0.01 mm least count, Perforated Swell Plate 100 mm dia x 16 mm thickSpacer 100 mm dia x 12.7 mm thick, Pair of Porous Stones 100 mm dia x 210 mm high

	Penetrometer	depths and to facilitate easy and constant rate of penetration of 1 to 2.5 cm/sec			
		of the cone through an engine-driven Static Cone Penetro-meter of 100 kN			
		capacity. The equipment consists of a hydraulic pump driven by a Diesel			
		Engine. The whole system is mounted on atonable trolley fitted with pneumatic			
		wheels. The pumping unit and ram are connected by means of flexible pipes			
		through a direction control valve. The hydraulic ram moves on a two pillar			
		stand mounted on a trolley. The equipment must be supplied with following			
		accessories: Penetration Cone steel,60° cone angle, 10 cm2 base area, with			
		friction jacket - 1 No. Mantle Tube 36 mm uniform OD with Sounding Rod			
		working length 1 m - 30 Nos. Load Measuring Head withAutomatic Cut-off			
		Valve, andOil Can without Pressure Gauges 1 Nos. Pressure Gauge 0-600 x 5			
		kg/cm - 1 Nos. Pressure Gauge 0-100 x 1 kg/cm - 1 Nos. Trusses -2 Nos.			
		Screw Anchor - 45 cm 6 Nos. Screw Anchor - 30 cm 6 Nos. Screw Anchor -			
		20 cm 6 Nos. Screw Anchor Rod with Cone -6 Nos. Driving handle for Screw			
		Anchor- 1 No. Extension Pipe for Handle - 4 Nos. Clamping Screw with Nuts-			
		6 Nos. Extractor Tube with Connector - 1 No. Tool Box - 1 No. Digital			
		Indicator Capacity 100X0.01 kN which is battery operated with load cell – 1			
		No			
		For operation on 220V, 50 Hz, Single Phase, AC supply. Electric cum hand			
14	Ejector used to	operated, with hydraulic pump, with safety valve, soil ejection required			
	extract soil sample	up to 600mm in length, should allow selection of up and down			
	from proctor mould	movement. Should be supplied with all standard accessories-sampling			
		tube- 200mm length and 38mm diameter- 3 sets, sampling tube -			
		200mm length and 50mm diameter- 3sets, sampling tube 200mm length			
		and 75mm diameter-3 sets, sampling tube 250mm length and 100mm			
		diameter - 3sets, adapter rings and ejector discs for-38mm, 50mm,			
		75mm, 100mm and 150mm diameter sampling moulds or tubes.			

## Special Terms & Conditions

- The bidder should submit the proof that the manufacturer manufactures the equipment/apparatus as per the required testing standards BIS/ ASTM standards.
- The bidder should submit the NABL accredited lab testing and calibration certificate for the scope of the experiments to be performed on the machine.
- The bidder/manufacturer will ensure the traceability (source of calibration) of the calibration unit to NPL, India.
- The bidder should provide details of service center and information on service support facilities/escalation service matrix that would be provided after the warranty period.
- The bidder should furnish detailed technical description and original literature of the Machine/Equipments.
- The bidder should arrange for pre dispatch inspection of the machine before the final delivery if suggested by the department/institution.
- The Manufacturer should have trained and qualified customer support staff with ample experience in the required field. The details of the same should be provided.
- The bidders should submit the proof of supplying the required items to the reputed institutions like IIT, NIT and other TEQIP III funded colleges in the last three years.
- The bidder should provide undertaking regarding installation/commissioning, and after sales service of the instruments and training/ demonstration to at least two persons of the Lab/Department of the institution.
- Certificate to the effect is required to be submitted by the bidder undertaking that the "price quoted is not more than the cost of the equipment (with same / similar specifications) which was sold to other Govt. organizations, Universities and institutions during last one year".
- Bidder must have executed a single supply order for the similar items of amounting equal to or higher than this contract during the last 3 years. Documentary proof in support of this must be attached with your quotation.
- Manufacturer should have NABL accredited testing and calibration facility from at least 5 years.

#### FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

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

То:\_\_\_\_\_

Sl. No.	Description of goods \ (with full Specifications, Make and Model)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and of In %	her taxes payable In figures (B)
Total Cost				ost			

Gross Total Cost (A+B): Rs.

amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of \_\_\_\_\_\_ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.