INVITATION LETTER

Package Code: TEQIP-III/2019/ntst/106 **Current Date: 20-June-2019**

Package Name: NITS/TEQIP-III/CE/02 **Method: Shopping Goods**

Sub: INVITATION LETTER FOR NITS/TEQIP-III/CE/02

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:

S. No.	Item Name	Quantity	Place of Delivery	Installation Requirement (if any)
1	Instruments for Geotechnical Engineering Laboratory	As per Annexure -I	NIT Sikkim	YES

2. 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. **Qualification Criteria**:

The bidder/supplier should have:

3.1. **The bid should be accompanied with an EMD (Earnest Money Deposit) of Rs. 1,10,000/- (Rupees One Lakh Ten Thousand only) in favour of The Director NIT Sikkim in the form of Demand Draft (DD) drawn on any commercial bank payable at Ravangla/Gangtok.**

3.2. A minimum of 3 years experience of supplying similar items, substantiated by relevant documents.

3.3. A turnover of Rs.50Lakh in last three years.

3.4. Not been blacklisted by any Govt. Institution/Organization.

4. **Quotation:**

4.1. The contract shall be for the **full quantity** as described above.

4.2. The vendors are requested to quote lowest rate for the supply of all the items in the prescribed **Format for Quotation Submission.**

4.3. Corrections, if any, shall be made by crossing out, initialling, dating and re writing.

4.4. All duties and other levies payable by the supplier under the contract shall be included in the unit Price.

4.5. Applicable taxes shall be quoted separately for all items.The Institute has DSIR certificate (applicable GST would be 5%).

4.6. 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.

4.7. The Prices should be quoted in Indian Rupees only.

4.8. The vendor should submit trade licence/certificate of Registration (as applicable) in the required business/field, GST registration number and photocopy of the GST registration certificate, the PAN of proprietor/firm/company with photocopy of the PAN card. Please attach a certificate that the quoted price is not more than that of any govt. organization/Intuition in India. This has to be mention in the offer letter clearly.

5. Each bidder shall submit only one quotation.

6. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.

7. The quotation should include the following information:

   7.1. Authorization certificate from the OEM/Principal assuring full guarantee and warrantee obligations during the liability period, for the goods offered.

   7.2. The list of clients (IITs, NITs/Central Universities and other reputed Institution) duly supported by copies of purchase order.

   7.3. Details of service/supports centres located in India.

8. **Evaluation of Quotations**: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which:

   8.1. are properly signed; and

   8.2. Confirm to the terms and conditions, and specifications.

   8.3. The vendor should provide complete technical details (printed literature of the manufacturer along with model/make) and the same should be verifiable from the website of the vendor/OEM. Mere copying the technical specification provided in the Annexure-I may lead to cancellation of the bid.

   8.4. The Institute reserves the right for pre-inspection of the goods/equipment quoted by the vendor.

9. The Quotations would be evaluated for all items together.

10. **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.

    10.1. 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.

10.2. 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.

11. Performance Bank Guarantee:Performance Security has to be submitted by the successful bidder. A Bank guarantee issued by a Nationalized Bank in India towards PBG for an amount equal to 5% of total order value of purchase order and valid till the period of beyond the 2 months of completion of warrantee period should be submitted in favour of **Director NIT Sikkim**. In case, the vendor fails to provide satisfactory service, the PBG is liable to be forfeited.

12. Payment shall be made in Indian Rupees as follows:

    Satisfactory Delivery & Installation - 70% of total cost
    Satisfactory Acceptance - 30% of total cost

13. Liquidated Damages will be applied as per the below:

    Liquidated Damages per Day Min %: 0
    Liquidated Damages Max %: 10

14. **All supplied items are under onsite warranty of 5 years from the date of successful acceptance of items and AMC/Others is NA.**

15. You are requested to provide your offer latest by **17:30** hours on **15-July-2019.**

16. Detailed specifications of the items are at **Annexure-I**.

17. Training Clause (if any) **YES**

18. Testing/Installation Clause (if any) **YES**

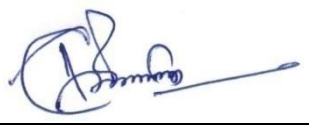
19. Performance Security shall be applicable**: 5%**

20. Information brochures/ Product cataloguemust be accompanied with the quotation clearly indicating the model quoted for.

21. **The vendors should submit the technical and financial bids in two separate sealed envelopes. Financial bids of only the technically responsive bidders will be evaluated.**Sealed quotation to be submitted/ delivered at the address mentioned below:

    The Nodal Office (Procurement),
    TEQIP-III,
    National Institute of Technology Sikkim,
    Barfung Block, Ravangla, South Sikkim
    Pin Code-737139.

22. We look forward to receiving your quotation and thank you for your interest in this project.



Dr.Achintesh N. Biswas
Nodal Officer (Procurement)

Annexure-I

Sl. No.	Name of the Item	Quantity	Specification
1	**Unconfined Compression Tester for load measurement, with NABL calibration Certificate**	1	• Ref Standard: IS: 2720 (Part 10), ASHTO T208 • Should consist of Load Frame, Motorized three speed 50 kN. • Supplied complete with Plain Platen with Adapter and Steel Ball • Load measurement should be by means of a high sensitivity proving ring capacity 2kN • Displacement to measured with Dial Gauge 25 mm travel, 0.01 mm least count • Split Mould 38mm dia. × 76mm long • Rubber Sheath for 38mm dia. Specimen
2	**Universal Penetrometer, with NABL calibration Certificate**		Ref. Standards - IS:1448 (Part 60), IS:1203, IS: 2720 (Part 5), ASTM D 5, IP 49,ASTM D1321, ASTM D 2884, ASTM D1403, IP 310, BS:1377, BS:2000- (Part 49), BS:4691, BS:4698, ASTM D 937, ISO 2137, IP 50, IP 179, ASTM D 217, AASHTO T49, EN DDENV 1991-2/unit is compact with in-built timer to control duration of penetration preset in factory to 5 seconds. The instrument is provided levelling screws.
3	**Direct Shear Outfit, Electronic, 2kN, complete with Data Aquisition System , with NABL calibration Certificate**	1	Ref. Standards IS:2720 (Part 13), IS:11229/ • Digital readout minimises operator error. • Reduces operator time and involvement. • Direct reading in engineering units. • Pre-calibrated before despatch. • Plug-in transducer module system/ **Type of Shear :** Direct / Residual Measurement **Operation** : Motorised **Rates of Strain :** 1.25, 0.625, 0.25, 0.125, 0.05, 0.025, (mm/min) 0.01, 0.005, 0.002, 0.001, 0.0004, 0.0002 **Specimen Size** : 60 x 60 x 25 mm **Shear Box Assembly** This assembly comprises of : ✓ Halves of the Shear Box 2 Nos. ✓ Plane Gripper Plate 2 Nos. ✓ Perforated Gripper Plate 2 Nos. ✓ Porous Stone 2 Nos. • Top Loading Pad 1 No. • Base Plate 1 No. • Shear Box Housing with two linear bearing case with steer 1 No. • Specimen Cutter 1 No. • Surcharge Weights to attain normal stress of 3 kg/cm2 1 Set surcharge weight set comprises of following weights : ✓ 0.05 kg/cm^2: 4 Nos. ✓ 0.10 kg/cm^2: 1 No. ✓ 0.20 kg/cm^2: 1 No. ✓ 0.50 kg/cm^2: 3 Nos. ✓ 1.00 kg/cm^2: 1 No • Direct/Residual Shear • Electronic Conversion Kit with Digital Indicator:- 1 No • Mode of Display : Micro controller multi line

			• alpha numeric VFD display for all simultaneous channel (No need for channel selection) • load cell:- 1No Capacity : 2 kN Universal Type, TCPR with 3 meter long cable without hooks. • Max. overload : 110% of the rated capacity. • Sensing element : Strain Gauges in full bridge configuration. • Displacement Sensor 2 Nos. • Range : ± 20 mm. Displacement sensor with 3 meter long cable • Sensing element : LVDT • Data Acquisition through Data Logger:- • Dual Channel Isolation Technology/Up to 6 Analog (± 50V) sensor inputs/ 8 flexible digital terminals/1 Serial 'Smart Sensor' port/SDI-12 (multiple networks)/programmable Analogue Output/Modbus for SCADA connection/ Web & FTP client / server/USB memory for easy data and program transfer/Analog channels: 2 analog input channels, each channel is independent and supports: one isolated 3-wire or 4-wire input, or two isolated 2-wire inputs, or three common reference 2-wire inputs. • The following maximums apply./2-wire with common reference terminal: 6 • 2-wire isolated: 4 • 3- and 4-wire isolated: 2 Integrates over 50/60Hz line period for accuracy and noise rejection • Maximum sample speed: 40Hz • Effective resolution: 18 bits • Linearity: 0.01% • Common mode rejection: >90dB • Line series mode rejection: >35dB • Low Speed Counters • 4 counters shared with digital inputs. • Low speed counters do not function in sleep mode. • Size: 32 bit Max Count rate: 10 Hz • Dedicated Counter Inputs • 4 high speed inputs • Size: 32 bit Max Count rate: 100 kHz • Input type: 2 logic level inputs (max ±30V), 2 sensitive inputs (100mV) for magnetic pickups (max ±10V) • Data Storage: Internal Store: ✓ Capacity: 128MB (approx 10,000,000 data points) ✓ Larger storage available refers to technical support. ✓ Removable USB store device (optional accessory) ✓ Types: compatible with USB 1.1 or USB 2.0 drives, e.g. Flash drive. ✓ Capacity: approx. 90,000 data points per megabyte. • Display and Keypad Type: LCD, 2 line by 16 characters, backlight. • Display Functions: channel data, alarms, system status. • Keypad: 6 keys for scrolling and function execution. • Status LEDs: 4 for sample, disk, attention and power. • Firmware Upgrade Via: RS232, Ethernet, or USB memory. • Real Time Clock Normal resolution: 200s

			• Accuracy: ±1 min/year (0°C to 40°C), ±4 min/year (-40°C to 70°C) • Power Supply • External voltage range: 10 to 30Vdc • Peak Power: 12W (12Vdc 1A) • Average power Consumption • Using 12Vdc external power source • PC with 8 GB Ram, i5 7th gen or upgraded version with windows 10 professional, 1 TB hard drive
4	**Laboratory Vane Shear Apparatus, Motorized, with NABL calibration Certificate**	2	Ref. Standard IS: 2720 (Part 30) Consists of a special motor, adjustable in height by means of a lead screw rotated by a drive wheel to enable the vane to be lowered into the specimen. Rotation of the vane is by means of an electric motor turns the upper end of a calibrated torsion spring to give a rotation of 0.10/sec. The vane shaft is attached through the hollow upper shaft to a resettable pointer which indicates the angle of torque on a dial graduated in degrees. The dial reading multiplied by spring factor gives the torque. Rate of rotation: 1/60 rpm Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply.
5	**Universal Automatic Compactor with Mild Steel compaction mould as per IS:2720 , with NABL calibration Certificate**	1	• The electrically operated mechanical compaction process eliminates the tedious hand compaction process and results in a considerable saving of time. • Two rammers with two different stroke lengths are provided. This makes the apparatus suitable to carry out all the normal compaction operations required in soil testing laboratories including the CBR tests. • This is a new design motor driven mechanical compactor, useful for soil compaction in 100 mm or 150 mm dia. moulds. • The rammer travels across the mould and the table rotates the mould in equal steps on a stable base. • The number of blows per layer can be set at the beginning of the test. • **Rammer –** ✓ Circular faced 50mm dia. ✓ Adjustable to 2.6kg or 4.9kg weight. ✓ Drop - Adjustable to 310mm or 450mm. ✓ Supplied with Mould, 100mm dia x 127.3mm height 1,000 ml volume and 150 mm ID, 127.3 mm height 2,250 ml volume The equipment is suitable for operation on 220 V, 50 Hz, Single Phase, AC supply.

6	**Relative Density Apparatus, with NABL calibration Certificate**	1	**Relative Density Apparatus:** • Relates the dry density of cohesionless soil to the maximum and minimum densities. • The degree of compaction of cohesionless soil can be stated in terms of relative density. • Suitable for operation on 220 V, 50 Hz, single phase,AC supply. Ref Standard IS: 2720 (Pt XIV):- **Consisting of :-** ✓ Vibrating Table ✓ Cylindrical Metal Unit Weight Mould, 3000ml capacity 1 No. ✓ Guide Sleeve with clamp assembly:-1 No. ✓ Surcharge base plate Handle ✓ Surcharge Weight ✓ The total weight together with is equivalent to 140g/cm2 for the mould being used ✓ Cylindrical Metal Unit Weight Mould 15000 ml capacity 1 No ✓ Guide Sleeve with clamp Assembly:-1 No. ✓ Surcharge base plate ✓ Surcharge weight the total weight together is equivalent to 140g/cm2 for the mould being used. ✓ Dial Gauge Holder 1 No. ✓ Calibration Bar, 75x300x3 mm 1 No. ✓ Dial Gauge 25 mm travel, 0.01 mm least count, with an extension piece 1 No. ✓ Weights Handing Equipment
7	**Swell Test Apparatus with Load Frame, Hand operated, with NABL calibration Certificate**	1	• 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 thick. • Spacer 100 mm dia x 12.7 mm thick. • Pair of Porous Stones 100 mm dia x 12.7 mm thick • Load Transfer Bar • Steel Ball • Soaking Tank, 250 mm dia. x 210 mm high
8	**Standard Penetration Test (SPT)**	1	• Ref. Standards IS:2131, IS:9640/Resistance is measured as the number of blows 'N' required to drive a split spoon sampler to a depth of 300 mm using a 65 kg weight falling freely through a height of 750 mm/ Split Spoon Sampler 50.8 mm OD and 38 mm ID. 1 No. • Body split lengthwise./ Shoe hardened with an inside cutting edge./ Head fitted with a ball check valve and adapter to connect 'A' type drill rod/Drive Weight Cast Iron, 63.5 kg, 78 mm bore ID approx. 1 No. • Guide Pipe Assembly Bore 73 mm OD approx. 1 No. • Tripod with Pulley and built-in Ladder. 1 No. • 'A' Type Drill Rods 0.5m. 2 Nos and 1 m 10 Nos. • Manila Rope 19mm dia. 10 m 1 No.

9	**Tri axial Testing Machine, with Data Acquisition System, with NABL calibration Certificate**	1	**Tri-axial Testing Machinewith Data Acquisition System:** Comprising of the following :- Digital Load Frame It is an Advanced version of mechanical load frames. In this load frame rate of strain is controlled through combination of electronic and server motor. The unit operates on 220 Volts 50Hz single Phase supply. Specification: Capacity of the load frame - 50kN Vertical Clearance - 325mm Horizontal Clearance - 325 mm Platen Diameter - 150mm Platen speed - 0.0001-9.9999mm/min Weight - 110kg App. Universal Triaxial Cell Pressure Range - 1000 Kpa Suitable for performing triaxial tests on soil specimen of varying diameter from 38mm to 100mm with lateral pressure upto 10.5kg/cm2.The cell has four take off positions and is fitted with three no volume change valves. Supplied Complete with one set of following accessories for each of 38mm, 50mm, 75mm and 100mm dia specimens. Pneumatic Control Panel ,2 lines The unit have precision pressure regulators for controlling confining pressure, back pressure Capacity : 10.5kg/sq cm, Complete with Mechanical Volume Change apparatus AIR COMPRESSORS, 10kg/sq.cm. It is a single stage compressor fitted over an air receiver, ON-OFF switch, Pressure gauge & pressure outlet valve are provided as standard. Suitable for operation on220 volt 50 Hz, single phase supply. De-airing Chamber with vacuum Pump It has a vacuum regulator, 20ltr, water chamber and additional lines for vacuum mm and vacuum Gauge. Electronic Data Acquisition The four Channel micro controller base signal conditioning & touch panel display unit is suitable to measure Axial Load, pore /back pressure, vertical displacement & volume change (optional) directly indicated in their respective engineering units during Triaxial testing. The system receives the output signal from the sensor i.e Load cell, pore/back pressure sensor attached to the Triaxial Shear Test apparatus. The data of all four channels of Triaxial shear test can be transferred to computer through Ethernet & can be online monitored. The unit also provides the facility of online monitoring of data of all the sensor on Touch Panel Display provided at the front. Broadly the following facilities are incorporated in the system: -Touch Panel is provided to perform various operations such as TARE,PROGRAMMING,START,STOP etc -Independent Taring of each channel -Data transfer interval is programmable (between 10 second to 1 hour) -Automatic data saving on stop bottom there are 25 set result having maximum of 200 data points pee set can be stored in the electronic unit. The sample number can be programmed. -Online data & time of test will be stored along with the data. -Online (while the test is in progress) data transfer to the computer through Ethernet port. Note - The Electronic unit operates on 220V AC+ 10%,50Hz Sensor Specification:

			Load Cell Capacity :1000kg Type : S -Shaped Excitation Voltage : 10VDC Nominal output : 3.0m V/V Non-Linearity : <+0.025% FSO • Hysteresis: <+0.02%FSO • Non Repeatability :<-0.01% FSO • Creep (30 minutes) : <+0.03% FSO • Zero Balance : 1.0% FSO • Input resistance : 392 + 15 Ohms • Output Resistance : 350 + 3 Ohms • Insulation Resistance :> 1000 M Ohms • Safe Over Load : 150% of rate capacity • Ultimate Over load : 250% of rated capacity • Temp. Range : 0degree to 60 degree cc • Temp. Effect on output : <1.0015% FSO/Degree cc • Temp. Effect on zero : <0.0020% FSC /degree PRESSURE TRANSDUCER • Capacity : 2000Kpa • Excitation Voltage : 12VDC • Nominal Output : 4-20mA • Over Pressure Limit : 2 times F.S • Burst Pressure : 3 times F.S • Max. Loop Resistance : <(UB-12V)/0.02A • Isolation Resistance :> 100MOhms at 50VDC • Isolation Voltage : 250VAC • Supply Current : 20mA for 4-20mA output • Operating Temp. Range:-40degree c to 50degree c LINEAR VARIABLE DIFFERENTIAL TRANSFORMER (LVDT) • Stoke : = +- 20mm • Linearity Deviation =1% of rated capacity • Repeatability : +- 0.1% of rated capacity • Hysteresis : +-0.5% of rated capacity • Excitation :2- volt rms 2 KHz sinusoidal • Sensitivity : 1m V/V/mm • Safe Temperature Range: 0 degree-50 degree cc • Core Fixture : Spring Loaded Plunger Software Specification: -Data acquisition from signal conditioning unit to computer -PC with 8 GB Ram, i5 7th gen or upgraded version with windows 10 professional, 1 TB hard drive -Off line Tri-axial data analysis Software that does all the calculations of UC,UU,CU,CU Bar & CD Tri-axial test -has option for manual as well as automatic recording of data Calculates Dry Density, Moisture Content, Void Ratio, Degree of Saturation, 100% Saturation Moisture Content etc. -Display the following Plots (Graphical) (a) Consolidation Curve (b) Stress -Strain Curve for every test (c) Axial Strain vs Pore Pressure (d) Effective Stress Ration vs Axial strain (e) A- parameter vs Axial strain (f) p-q plot and gives the value of c and f in terms of effective Ratio (g) Calculate the following: 1. Evaluates t100 2. Strain rate depending upon the drainage condition for CD and CU test.

10	**Hydrometer**	5	Standard 152 H hydrometer with the calibration chart for each hydrometer to calculate the effective height of fall from the hydrometer reading
11	**Helical Auger**	1	The standard helical hand operated auger having 100 mm diameter with handle. 10 Nos. of extension road of 1 m length. Rod should be connected with each other through threads.
12	**Posthole Auger**	1	The Posthole auger having 100 mm diameter with handle. 10 Nos. of extension road of 1 m length. Rod should be connected with each other through threads.

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: .....

To,

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

Gross Total Cost (A+B): Rs. .....

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. .....(Amount in figures) (Rupees ..... 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.: .....