



**National Institute of Technology, Meghalaya  
Bijni Complex, Laitumkhrah, Shillong 793003**

**INVITATION LETTER**

**Ref No.: TEQIP III/2019/NITMGH/Shopping/160**

**Date: 14-Jun-2019**

**Package Code: TEQIP-III/2019/nimt/86**

**Current Date: 14-Jun-2019**

**Package Name: NITMGH/TEQIP III/CE/018 (Ground Water Flow Apparatus)**

**Method: Shopping Goods**

To,

**Sub: INVITATION LETTER FOR NITMGH/TEQIP III/CE/018 (Ground Water Flow Apparatus)**

Dear Sir,

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

<b>Sr. No</b>	<b>Item Name</b>	<b>Quantity</b>	<b>Place of Delivery</b>	<b>Installation Requirement (if any)</b>
1	Ground Water Flow Apparatus	01	National Institute of Technology Meghalaya, Bijni Complex, Laitumkhrah, Shillong - 793003	Yes

1. 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.

**2. Quotation**

- 2.1 The contract shall be for the full quantity as described above.
- 2.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.
- 2.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.
- 2.4 Applicable taxes shall be quoted separately for all items.
- 2.5 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.
- 2.6 The Prices should be quoted in Indian Rupees only.

3. Each bidder shall submit only one quotation.
4. Quotation shall remain valid for a period not less than **45** days after the last date of quotation submission.
5. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which
  - 5.1 are properly signed; and
  - 5.2 Confirm to the terms and conditions, and specifications.
6. The Quotations would be evaluated for all items together.
7. 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.
  - 7.1 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.
  - 7.2 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.
8. Payment shall be made in Indian Rupees as follows:  
  
**Satisfactory Delivery & Installation - 10% of total cost**  
**Satisfactory Acceptance - 90% of total cost**
9. Liquidated Damages will be applied as per the below:  
Liquidated Damages Per Day Min % :N/A  
Liquidated Damages Max % : N/A
10. All supplied items are under warranty of **24** months from the date of successful acceptance of items and AMC/Others is **As applicable**.
11. You are requested to provide your offer latest by **02:00** hours on **01-Jul-2019**.
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Yes**
14. Testing/Installation Clause (if any) **Yes**
15. Performance Security shall be applicable: **0%**
16. Information brochures/ Product catalogue, if any must be accompanied with the

- quotation clearly indicating the model quoted for.
17. Sealed quotation to be submitted/ delivered at the address mentioned below, **National Institute of Technology, Meghalaya, Bijni Complex, Laitumkrah, Shillong 793003**
  18. For authenticity/genuineness of the quoted product, the firm should be a reputable, well established and suppliers of the goods or services as part of their normal business.
  19. **Technical Presentation:** If necessary then the authority may ask the technically qualified bidders to give full presentation or live demonstration of the Quoted equipment at NIT Meghalaya before finalization of the tender as a support of their specification.
  20. Dealership Certificate: The bidder/tenderer should be either a manufacturer or authorized dealer of the foreign/Indian manufacturer. Dealers or Agents quoting on behalf of Manufacturer must enclose valid dealership certificate.
  21. We look forward to receiving your quotation and thank you for your interest in this project.

*[Handwritten Signature]*  
- 14/6/19

(Authorized Signatory)

Name & Designation

Coordinator *(Signature)*  
TEQIP- III  
National Institute of Technology  
Meghalaya

**Annexure I**

Sr. No	Item Name	Specifications
1	Ground Water Flow Apparatus	<p><b>(A) GROUND WATER FLOW Description</b></p> <p>Requires apparatus for three dimensional investigations of ground water flows. The apparatus should consist a tank in which sand can be filled, and various models such as cylindrical and rectangular rings can be placed on the sand bed.</p> <p>The front wall of the tank should be transparent for the visualization of various processes.</p> <p>The tank should consist of two horizontal perforated tubes connected to supply line via two valves and should have the provision to be operated separately via valves.</p> <p>The tank should also have two open seam tubes which will acts as wells for the investigations of various extractions and these walls should also have the provision to be activated separately via valves.</p> <p>Different models should be provided for the study of excavation pits.</p> <p>At the bottom of the tank there should be atleast 19 tapings in the base of the tank arranged in a cruciform configuration and should be connected to a multi-tube piezometer on the side of the tank. These indicate the profile of the water table in the sand.</p>

### Technical Details

Tank:

Material: stainless steel SS304

Front wall: transparent (toughened glass)

Dimensions: 1000 X 615 X 350 mm (appx.)

### Models

Excavation pit: 610 X 464 X 150 mm

Excavation pit: 256 X 464 X 150 mm

Structure with waterproof bottom

Outer ring with waterproof base dimension:

Dia: 180 mm height: 150 mm

Inner tube for water level between the ring:

Dia: 40 mm, height: 330 mm

Pressure : 0 .....350 mmWC

### Experimentation

- Hydraulic gradients in ground water flow, including the effect of permeability
- Cone of depression for a single well in an unconfined aquifer
- Abstraction from a single well in a confined aquifer
- Cone of depression for two wells
- De-watering of an excavation site using two wells
- Draining of a polder or lake

### (B) OPEN PAN EVAPORIMETER

#### Specification

1. The Pan-Evaporimeter should be made from Copper sheet of  $1.0 \pm 0.1$  mm thickness and dia.1220mm. The dimension for pan-evaporimeter should be as per I.S.: 5973-1970. The reservoir should be covered with wire mesh netting to protect the pan from birds and animals.
2. The fixed-point gauge should be made from non-rusting metal rod of 10 mm. Diameter. It should consist of a stilling well made from non-rusting metal tube of 102 mm. outside diameter with a wall thickness of 3.0 mm.
3. The calibrated measuring cylinder should be made from copper sheet.
4. A suitable thermometer and its clamp should be provided in the pan.
5. The wooden platform should be made of good quality wood and painted with white enamel paint.

### (C) DOUBLE RING INFILTROMETER

#### Specifications

1. Infiltrometer Apparatus, complete with one inner ring 30cm dia., one outer ring 45cm dia.
2. Height of rings 30 cm
3. Driving Plate with Hammer weight and Hammer Guide rod
4. Water Level Gauge
5. Stop Watch

### (D) RAIN GAUGE

**Specifications**

Resolution: 0.2 mm

Sensor type: Double-spoon tipping bucket

Output: Pulse

Case material: ABS

Rain Gauge Dimension: 17 cm x 14.2 cm

**Datalogger**

Sensor input ports: 6 (Should support analog, digital, or pulse sensors)

Logging interval: 5 min to 12 h

Data storage: 8 MB (40,000 to 80,000+ records depending on configuration)

Memory type: Non-volatile flash, full data retention with loss of power

Global position: Integrated 56-channel GPS/QZSS receiver

GPS position update: Daily (automatic) and on-demand (manual)

GPS position accuracy:  $\pm 3$  m, with good sky view

Timekeeping: Synchronize automatically and on-demand; GPS system, cellular, or software

Battery capacity: 6 AA NiMH or alkaline batteries

NiMH battery charging: Solar energy harvesting or USB

NiMH battery life: 3+ years with unobstructed view of sun

Computer communication: Standard USB cable, USB A to micro-B

Cellular specifications: UMTS 3G 5-band cellular module with 2G fallback

Cellular coverage: T&T® and T-Mobile® in USA, 200+ global partner carriers.

Cellular and data hosting service provided by METER.

Internet downloads: SSL/TLS encrypted

**FORMAT FOR QUOTATION SUBMISSION**  
(In letterhead of the supplier with seal)

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

To: \_\_\_\_\_  
\_\_\_\_\_

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 and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
<b>Total Cost</b>							

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. \_\_\_\_\_