# NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR

*(An Autonomous Institute of National Importance Established by the Act of Parliament)*

## OFFICE OF THE COORDINATOR TEQIP III

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**No.: NIT/TEQIP/20/741**
**Dated: 23–11-2020**

## Minutes of Pre-Bid Meeting

With reference to the Invitation for Bids for the supply of Triaxial Equipment vide IFB No. TEQIP-III/2020/nits/303 and Re- Invitation for Bids vide IFB No. TEQIP-III/2020/nits/311 and TEQIP-III/2020/nits/313 and Tender ID No. 2020_WBNIT_572346_3 Dated 16-11-2020, a pre-bid meet was held on 22-11-2020 at 11:30 am through google meet.

Following members attended the meeting as per schedule:

| S. no | Member Name | Role |
|---|---|---|
| 1. | Dr. Shahid Saleem | Chairman (Purchase Committee TEQIP III) |
| 2. | Prof. B.A Mir | Member (Purchase Committee TEQIP III)/Intender |
| 3. | Mr Saif Mobin | Representative ZS Infra Test LLP |
| 4. | Mr Gaganpreet Singh | Representative Aimil Limited |
| 5. | Mr Kandarp Bhatt | Representative Aimil Limited |

Representatives of above mentioned firms participated in the meeting and sought some clarification. The commercial and technical specifications were discussed. The commercial terms were found to be in order and to the satisfaction of the representatives, hence did not require any changes. However, minor changes have been made in the technical specifications and the revised technical specifications can be found at Annexure A.

Moreover, the bid security and tender fee should be paid through NEFT /RTGS in the bank account mentioned below with intimation to the TEQIP III Office at teqip3@nitsri.ac.in

Account Name: TEQIP III NIT Srinagar
Account No.: 0391040100011025
Bank Name: J&K bank
Branch: REC Srinagar
IFSC Code: JAKA0RECSGR
MICR Code: 190051054

Other terms and conditions are same as issued earlier in the Standard Bidding Document (IFB No. TEQIP-III/2020/nits/313.

SAIF MOBIN Digitally signed by SAIF MOBIN Date: 2020.11.23 17:40:05 +05'30'

**(Mr Kandarp Bhatt)  (Mr Gaganpreet Singh)  (Mr Saif Mobin)  (Prof. B.A Mir)  (Dr. Shahid Saleem)**

***ANNEXURE A***

## MODIFIED SPECIFICATIONS

**Name of the Equipment: Fully Automatic Static Triaxial System**

**Ref. Standards:** BS1377-7:1990, BS 1377-8:1990, BS EN ISO 17892-7:2017, BS EN ISO 17892-8:2018, BS EN ISO 17892-9:2018, ASTM D2166-13, D2166-16, D2850-03, D2850-15, D4767-95, D4767-11, D7181-20

**Description of the specifications:**

**Fully Automatic Static Triaxial System [with computer controlled Load Frame applicable for testing 100 mm dia, soil sample, Fully automated Hydraulic Pressure-Volume Controller] consisting of:**

Fully Automatic Triaxial Testing System should be capable of providing fully automatic total and effective Triaxial testing for samples up to **100 mm diameter** and Loads up to 50 kN including:

Consolidated Drained (CD)
Consolidated Undrained (CU)
Unconsolidated Undrained (UU)
Stress Path tests &
Slow Cyclic Testing up to 0.1 Hz (Optional)

**The Fully Automatic Static Triaxial System should consist of the following:**

**1. Load Frame**

- 50 kN capacity for testing of soil samples up to 100 mm diameter
- Closed loop control of displacement and load
- Integrated TouchScreen Colour Display for Standalone use
- USB or Ethernet Interface for PC control
- Inbuilt minimum 4 channel data-logger with 4GB or more data storage
- Tabular and graphic display of sensor readings
- User selectable speed from 0.00001 mm/min to 99.9999 mm/min.
- Platen travel 100mm, Vertical Clearance 1000 mm, Horizontal Clearance 380 mm.

**2. Fully automated Hydraulic Pressure-Volume Controller:**

- Maximum pressure: 3000 kPa or more
- **Pressure Accuracy/resolution: 0.25% FRO / 0.1 kPa**
- Volume change capacity: 200 ml or more
- **Volume Accuracy/ resolution: 0.25% FRO/ 0.001 cc**
- Integrated TouchScreen Colour Display for Standalone use
- USB or Ethernet Interface for PC control
- Two independent channels, each with Pressure and Volume control and feedback for cell and back pressure control
- Two additional External Channels to allow for secondary pressure measurements
- Automatic Solenoid Back Pressure valve to completely automate testing from start to finish with no user intervention
- Inbuilt data-logger with 4GB or more data storage
- Tabular and graphic display

**3. Triaxial Cell with sample preparation accessories for 100 mm dia samples**

- Stainless steel lo friction loading ram
- Five inlet/outlet ports with zero volume change valves
- Hard anodized for increased corrosion protection
- Transparent acrylic chamber

- Air bleed screw for efficient de-airing
- Compatible with quoted load frame
- Possibility to be used with internal submersible load cells
- Facility for Interchangeable pedestals and top caps for different sample sizes (supplied separately)
- Supplied with 100mm top cap and base pedestal and sample preparation kit
- **Sample preparation kit should include the following for 100mm dia samples:**
  - **Split former (for non-cohesive samples)**
  - **Split Mould (for cohesive samples)**
  - **40 membranes**
  - **1 membrane stretcher**
  - **20 O rings**
  - **1 O ring placing tool**
  - **4 porous stones**
  - **2 base discs**

**4. Sensors with mounting accessories**

- Load Cell: 10 kN, Non-repeatability: 0.01% Full Scale
- Strain Transducer: 50 mm, Non-linearity: 0.01% Full Scale
- Pore Pressure Transducer with deairing block: 3000 kPa, for cell and pore pressures each

**5. Water distribution Panel and Deaired water system**

De-Airing System of 15 or more litres capacity with suitable vacuum pump and 2 way water distribution panel with pressure gauge for independent check of pressures

**6. PC: 24 inch ALL in One PC i5 8th Gen, 8GB Ram [upgradable to 16 GB], 256SSD and 1TB HDD with Triaxial Software Module with following features:**

- Cell / Back pressure saturation ramp
- B-Check
- Isotropic Consolidation
- UU, CU, CD & Effective Stress Triaxial Testing
- Single/Multi stage tests
- Tests automatically stopped at user defined criteria
- Automatic docking and undocking with sample at start and end of test.
- Live Tabular display of logged and calculated data
- Live Graphical display of logged and calculated data
- User defined views / graphs / tables
- Standard predefined presentation reports
- Export of data to Excel or Paste to clipboard
- UPS for PC-All in One-1KVA

**7. Following should be included with the Triaxial system**

- **One-week training to be provided after the installation.**
- **Calibration Certificate from NABL accreditated lab**