

INVITATION FOR QUOTATION

TEQIP-II/2017/ntst/Shopping/12

03-Nov-2017

To,

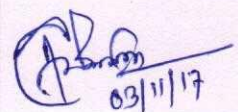
Sub: Invitation for Quotations for supply of Automated Di axial Testing Machine

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	Brief Description	Quantity	Delivery Period(In days)	Place of Delivery	Installation Requirement (if any)
1	Automated Di axial Testing Machine	1	30	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 II** 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, initialing, dating and re writing.


03/11/17

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 **45** 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.

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:

Delivery and Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **17:00** hours on **02-Dec-2017** .
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any)
14. Testing/Installation Clause (if any) **Installation required**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,
Dr. Achintesh Narayan Biswas
Nodal Officer (Procurement), TEQUIP-III
National Institute of Technology Sikkim
Barfung Block, Ravangla,
South Sikkim-737139.
17. We look forward to receiving your quotation and thank you for your interest in this project.



Dr. Achintesh Narayan Biswas
Nodal Officer (Procurement), TEQUIP-III, NIT Sikkim

Annexure I

Sr. No	Item Name	Specifications
1	Automated Di axial Testing Machine	<p>Automated Di Axial Testing Machine with Computer System: Conforming to IS: 2720 (Part XIII) & BS 1377 The unit is totally computer controlled, it has 2 servo motors, one for shear load and the second for maintaining normal load. Circuit for normal load is based on closed loop principal.</p> <p>Salient Features-</p> <ul style="list-style-type: none"> • Enables Direct shear tests through a total computer controlled operation • Conforms the test requirement of IS-2720 (Part-XIII) & BS 1377 • Programmable Normal stress from 0.01N/mm² to 0.5N/ mm² and maintain Stress level with in the limit of + 0.5% • Strain rate programmable Form 0.00001 mm/min – 9.9999 mm/min. • Shear box suitable for 60x60 mm sample (Optional 100x100mm sample) • Online plotting of Load vs Displacement, Load vs Time and Displacement vs Time curves and display of data for all the channels <p>Advanced Analysis Software The complete System consists of the following:-</p> <ol style="list-style-type: none"> i) Shear Box Assembly ii) Loading Frame iii) Shear box assembly, 60 mm square, complete with a U-bracket, guide pins and spacing screws, made of brass iv) Gripper assembly consisting of two plain grid plates, two perforated grid plates, one base plate and one loading pad, all made of brass v) Two porous stones 6 mm thick, fitting the shear box vi) Shear box housing of brass, complete with two roller strips vii) Specimen cutter for the specimen viii) PC based Control system and Control Software <ol style="list-style-type: none"> a. Signal Conditioning and Controlling Unit with Transducers b. Dedicated Computer for controlling and Data acquisition c. Control & Analysis software <p>Loading Frame Rate of strain : 0.0001 - 9.9999mm/min Shearing Load capacity : + 2000N Displacement range : +20mm Normal stress range : 0.01N/mm² – 0.5N/ mm²</p>

PC BASED CONTROL SYSTEM AND CONTROL SOFTWARE

Control system provides the digital control of the motors to apply normal stress and shearing load, data acquisition etc. for the continuous operation of the system.

a. Signal Conditioning and Control Unit with Transducers

The four-channel signal conditioning and control unit has drive cards that controls the operation of the two motors independently to set the normal stress and shearing strain. Signal conditioning unit also receives the output signal from the various transducers (Load cells and Displacement Transducers) and amplifies and process that signal as per the requirement and transfer it to computer through connecting cables where it is accepted by the data acquisition system. The readings of Shearing Load, Normal stress, Horizontal and Vertical Displacement are directly indicated in the computerized display.

The Load is displayed in terms of 'N' with a resolution of 1.0N, Normal stress in 'N/mm²' with resolution of 0.01 N/mm², Horizontal Displacement and Vertical Displacement in terms of mm with a resolution of 0.01mm each. Three analog output voltage points for each channel with ground is also provided in the unit.

Transducers Specification: -

1 Load Cell

- Capacity : 2000N

2. Linear Variable Differential Transformer (LVDT) Type (2 Nos.): -

- Stroke : ± 20 mm

b. Dedicated Computer for controlling and Data acquisition

System is provided with dedicated computer with built in data acquisition card. Broad specification of the computer and the data acquisition card is given below.

Intel i5 processor, 500 GB HDD,

4GB RAM, DVD R/W drive,

Key Board, Optical Mouse, USB Ports,

19" LCD Monitor, HP Deskjet Printer, UPS

c. Control and Analysis Software

Control software is the integral part of the system for precise controlling & Data Acquisition and analysis.

Salient Features-

- Windows based user friendly software
- Programmable Rate of shearing and Normal stress
- On-Line Data Acquisition from Signal Conditioning Unit to Computer
- Computer/Software programmable Safety Limits for each load & displacement

	<p>ment</p> <ul style="list-style-type: none"> • Independent Taring of each channel • Facility to Load and Unload the speci-men at specified rate • Facility to hold the shearing loading and restart the loading during the test. • Facility for Inching and release for adjustment of the gap • On-Line Data Acquisition from Signal Conditioning Unit to Computer • On-line display of readings of Shearing Load, Normal stress, Horizontal and Vertical Displacement • On-line display of Shear Load v/s Horizontal Displacement & Vertical Displacement v/s Horizontal Displacement graphs • Auto adjustment of graph scales • Calculations of various parameters • Facility to save the data after the test <p>Analysis Software</p> <ul style="list-style-type: none"> • Off-Line Data Analysis Software that does all the calculations of Direct Shear Test as per IS:2720 Part VIII. • Has option for manual as well as automatic recording of data. • Calculates Area, Volume, Bulk density, Dry density, Moisture content etc. of the specimen • Display the following Plots (Graphical) <ul style="list-style-type: none"> (a) Horizontal Displacement vs Shear Force (b) Horizontal Displacement vs Vertical Displacement (c) Normal stress vs Shear Force (d) Maximum value of the Dilation Angle
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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)
				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: _____