



Institute of Technology, Gopeshwar, The Director, Institute of  
Technology, Gopeshwar, Kothiyalsain, Chamoli-246424, Uttarakhand

### INVITATION LETTER

Package Code: TEQIP-III/UK/iotg/91

Current Date: 09-Dec-2019

Package Name: ITG/GOODS/Equipments/ME/01

Method: Shopping Goods

To,

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**Sub: INVITATION LETTER FOR ITG/GOODS/Equipments/ME/01**

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	Mechanical Testing Lab	1	THE DIRECTOR, INSTITUTE OF TECHNOLOGY GOPESHWAR, KOTHIYAL SAIN CHAMOLI UTTARAKHAND (246424)	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. **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 **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:

<b>Payment Description</b>	<b>Expected Delivery Period (in Days)</b>	<b>Payment Percentage</b>
Satisfactory Acceptance	30	100

10. Liquidated Damages will be applied as per the below:  
 Liquidated Damages Per Day Min %: 0.10  
 Liquidated Damages Max %: 10

11. All supplied items are under warranty of **12** months from the date of successful acceptance of items and AMC/Others is **0**.
12. You are requested to provide your offer latest by **12:30** hours on **26-Dec-2019**.
13. Detailed specifications of the items are at Annexure I.
14. Training Clause (if any) **YES**
15. Testing/Installation Clause (if any) **YES**
16. Performance Security shall be applicable: %
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, **Institute of Technology, Gopeshwar, The Director, Institute of Technology, Gopeshwar, Kothiyalsain, Chamoli-246424, Uttarakhand**
19. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

**Annexure I**

Sr. No	Item Name	Specifications																							
1	Mechanical Testing Lab	S.No.	Experiment Name	Specifications	QTY.																				
		1.	Digital Spring Testing Machine	<p><b>Digital Spring Testing Machine</b></p> <p>Spring testing machines are used for quick and accurate testing of tension and compression springs. The machine comprises of two hard chrome plated columns with fine cut single screw with hand wheel for manual loading and unloading arrangement. The machine uses a high precision load cell for measurement of force. For displacement measurement, mechanical linear scale or digital Vernier calliper or rotary encoder is used.</p> <p><b>GENERAL TECHNICAL SPECIFICATIONS:</b></p> <table border="1" data-bbox="740 1117 1425 1977"> <tr> <td>Load cell excitation</td> <td>± 5V DC</td> </tr> <tr> <td>Load cell connection</td> <td>2% ~ 100% FS</td> </tr> <tr> <td>Input signal range</td> <td>0 to 30 mV</td> </tr> <tr> <td>Spring diameter</td> <td>Upto 150 mm</td> </tr> <tr> <td>Display resolution</td> <td>Digital vernier scale with 0.01 mm resolution for displacement indication (6" or 12").</td> </tr> <tr> <td>Accuracy class</td> <td>+/- 1 % of indicated load or 0.5 % of full load</td> </tr> <tr> <td>Range of measuring capacity (N)</td> <td>0-2500</td> </tr> <tr> <td>Settings</td> <td>Through software</td> </tr> <tr> <td>Displays</td> <td>Digital display of load and deflection (least count 0.1 mm),5 Digit 7 segment LED</td> </tr> <tr> <td>Visual Indications (with LEDs)</td> <td>Overload Alarm, Peak Force, Set Points, Data</td> </tr> </table>	Load cell excitation	± 5V DC	Load cell connection	2% ~ 100% FS	Input signal range	0 to 30 mV	Spring diameter	Upto 150 mm	Display resolution	Digital vernier scale with 0.01 mm resolution for displacement indication (6" or 12").	Accuracy class	+/- 1 % of indicated load or 0.5 % of full load	Range of measuring capacity (N)	0-2500	Settings	Through software	Displays	Digital display of load and deflection (least count 0.1 mm),5 Digit 7 segment LED	Visual Indications (with LEDs)	Overload Alarm, Peak Force, Set Points, Data	01
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					Collection in progress, Data Collection Over						
				Audio Indication (with buzzer)	Overload condition						
				Operating temperature range	-10 <sup>0</sup> C to 70 <sup>0</sup> C						
				Operating voltage	30 VAC ±10% 50 Hz						
				Housing type and size	Table Top Mounting with Tilt Stand						
		2.	Computerized Torsion Testing Machine			01					
				<table border="1"> <thead> <tr> <th>S. No</th> <th>Equipment /Set Up Needed</th> <th>Specification</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Torsion Testing Machine  Technical Specification  Feature</td> <td> <p><b>Computerized:</b> Maximum torque Capacity: 2000 Nm. Torque range: 100,200,500,1000,2000 Nm Torsion speed and direction: 1 – 1.5 Rpm Reverse Angle of twist: 0.1 degree Clearance b/w grips: 0-1000 mm Grips for flat specimens &amp; thickness width: 10- 20 mm&amp; 60 mm. Grips for round specimens: 10-20,20- 30,30-40,40-50 mm. Power supply: 3phase, 400-440 V,50Hz AC</p> <p><b>Torsion test to give:</b> -Special comprehensive software - Torque Vs Angle of Twist graph. -The accuracy of torque indication is ±1% of the true torque</p> </td> </tr> </tbody> </table>	S. No	Equipment /Set Up Needed	Specification	1.	Torsion Testing Machine  Technical Specification  Feature	<p><b>Computerized:</b> Maximum torque Capacity: 2000 Nm. Torque range: 100,200,500,1000,2000 Nm Torsion speed and direction: 1 – 1.5 Rpm Reverse Angle of twist: 0.1 degree Clearance b/w grips: 0-1000 mm Grips for flat specimens &amp; thickness width: 10- 20 mm&amp; 60 mm. Grips for round specimens: 10-20,20- 30,30-40,40-50 mm. Power supply: 3phase, 400-440 V,50Hz AC</p> <p><b>Torsion test to give:</b> -Special comprehensive software - Torque Vs Angle of Twist graph. -The accuracy of torque indication is ±1% of the true torque</p>	
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						-Calculate various parameters like Torsional Shear Strength, Modulus of Rigidity.			
				2.	Computer With Data Acquisition System and software package	Processor-i7 Ram-8GB Graphic card- 2GB Storage- 500GB Monitor size- 19''		01	
				3.	Printer	LaserJet colour printer, multifunctional. (scan, copy, print)		01	
		3.	SALT SPRAY CHAMBER (CORROSION TEST APPARATUS)	<b>FEATURES:</b> <ul style="list-style-type: none"> <li>➤ The SALT SPRAY TESTER is used to test the anti-erosion quality of the surface of all materials after the rust-proof of painting, coating, electroplating, aboding and rust-proof of greasing</li> <li>➤ Test chamber: PVC gray impact resistance plate, 5-7 mm in thickness. Thermostat water tank.</li> <li>➤ Equipped with the auto water level controller to avoid the inconvenience to refill the water by manpower.</li> <li>➤ The upper cover of the test chamber uses transparent acrylic plate, 5-7 mm in thickness.</li> <li>➤ The barrel for refilling the reagent, equipped with a built-in water level gauge. The basket supporter inside the test chamber: use the gray PVC impact resistance plate.</li> </ul>					01
				<b>DESCRIPTION:</b>					

			<ul style="list-style-type: none"> <li>➤ Inner Chamber Size: 500 x 500 x 500 mm (L x W x H)</li> <li>➤ Interior Dimensions (working): As per chamber capacity.</li> <li>➤ Temp Test. NSS.ACSS 34 Deg C ±2</li> <li>➤ Temp. Air. NSS.ACSS 45Deg C ±3</li> <li>➤ Power AC220V±10% 1PH 50/60Hz</li> </ul> <p><b>CONTROL SYSTEM:</b></p> <ul style="list-style-type: none"> <li>➤ Temperature control of test chamber 0~99.9 Deg with accuracy in 1-2.5Deg C. PID</li> <li>➤ Automatic Safe temperature controller for liquid expansion in heating channel 0~110 2pcs.</li> <li>➤ The temperature controller of saturated air tank: 0~99.9 with accuracy in 1-2.5Deg C (able, PID automatic calculator: 1pc.</li> <li>➤ Total time: 0~9999.9 hr. - 1pc.</li> <li>➤ The first stage pressure adjusting structure: First pressure regulating valve with a set of pressure gauge (pre-adjust to 1.5-3kg/cm<sup>2</sup>)</li> </ul> <p><b>STANDARD ACCESSORIES:</b></p> <ul style="list-style-type: none"> <li>➤ 60-100 cm<sup>2</sup> standard fog collecting cup 1pc.1 to 2 ml/hr. (average up to 16 to 24 hrs.)</li> <li>➤ 50-100 ml graduated cylinder 1pc.</li> <li>➤ The detailed operational manual and standard documentation. 2 copy</li> </ul>	
4.	Automatic Digital Rockwell	<p><b>Product Description</b></p> <ul style="list-style-type: none"> <li>➤ Automatic testing, the preliminary and main test force is loaded automatically</li> <li>➤ LCD touch screen, easy operation</li> </ul>	01	

Hardness Tester

- Convert to other Rockwell scales, HV or HB automatically
- Low and high limits
- Insert USB flash disk, save the testing results as Excel
- Self-correcting the hardness value for curved work piece
- Force loading by electric motor (without weights)
- The test force is selected automatically according to hardness scale

**GENERAL TECHNICAL SPECIFICATIONS**

Hardness scale with standard indenters	HRA, HRB, HRC, HRD, HRF, HRG
Hardness scale with Operation indenters	HRE, HRH, HRK, HRM, HRR, HRS, HRV
Preliminary test force	95N/10kg for Rockwell
Test force	578 N(60KG),988 N(100KG),1471 N (150 KG)
STAGE Elevation	Manual
Load control	Automatic (load/dwell, unload)
Load dwell time	0-60 second
Resolution	0.1 HR
Maximum work piece height	220 m.m
Maximum work piece depth	220 m.m
Power supply	220 V,50/60 hz
Dimension	510*260*780 m.m
weight	50-70 kg

**Additional accessories**

Computer	Processor: Intel Core i5 8 <sup>th</sup> generation with 2 GB Graphics Card, 1TB Hard Disc, 8 GB RAM, 19'' Monitor with UPS
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			Printer	Multifunction LaserJet Printer with speed of 20-30 ppm, USB and wireless Connectivity									
			UPS	Independent set up for both computer and machine									
	5	Surface roughness tester	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>➤ Portable, handheld device used to measure surface roughness in shop, metalworking, manufacturing, and quality control (QC) applications</li> <li>➤ Auto-calibration for accurate measurement of 39 parameters, five profiles, and storage of up to 10 measurement conditions, and one measured profile</li> <li>➤ Displays total and sectional measurement, and evaluation curve, bearing area curve (BAC), amplitude distribution curve (ADC), and waveform results</li> <li>➤ Micro-SD card stores up to 10,000 results and supports screen capture</li> </ul> <p><b>Applications</b> Ideal for the following applications: Manufacturing, Machining, Metalworking, Quality Control</p> <p><b>Product Specification</b></p> <table border="1"> <tr> <td>Measuring Speed</td> <td>Measuring: 0.01, 0.02, 0.03 in/s (0.25mm/s, 0.5mm/s, 0.75mm/s) Returning: 1mm/s</td> </tr> <tr> <td>Measuring Force/Stylus Tip</td> <td>0.75mN Type: 0.75mN / 2µmR 60° 4mN Type: 4mN / 5µmR 90°</td> </tr> <tr> <td>Skid Force</td> <td>&lt;400mN</td> </tr> <tr> <td>Assessed Profiles</td> <td>Primary Profile, Roughness Profile, DF Profile, Roughness Profile-Motif</td> </tr> </table>		Measuring Speed	Measuring: 0.01, 0.02, 0.03 in/s (0.25mm/s, 0.5mm/s, 0.75mm/s) Returning: 1mm/s	Measuring Force/Stylus Tip	0.75mN Type: 0.75mN / 2µmR 60° 4mN Type: 4mN / 5µmR 90°	Skid Force	<400mN	Assessed Profiles	Primary Profile, Roughness Profile, DF Profile, Roughness Profile-Motif	01
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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)
<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. \_\_\_\_\_