



Women Institute of Technology, Sudhowala, Dehradun, New Uttarakhand
Technical University campus P.O. Sudhhowala Premnagar Dehradun

INVITATION LETTER

Package Code: TEQIP-III/2019/UK/wits/164

Current Date: 11-Sep-2019

Package Name: WIT/EE/003

Method: Shopping Goods

To,

Sub: INVITATION LETTER FOR WIT/EE/003

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	Electrical Machine Lab-I (Accessories)	1	WIT, Sudhhowala, Dehradun	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 **90**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:

Payment Description	Expected Delivery Period (in Days)	Payment Percentage
Satisfactory Acceptance	30	100

10. Liquidated Damages will be applied as per the below:
Liquidated Damages Per Day Min %: N/A
Liquidated Damages Max %: N/A
11. All supplied items are under warranty of **12** months from the date of successful acceptance of items and AMC/Others is **NA**.
12. You are requested to provide your offer latest by **04:30** hours on **26-Sep-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: **0%**
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, **Women Institute of Technology, Sudhowala, Dehardun, New Uttarakhand Technical University campus P.O. Sudhhowala Premnagar Dehardun**
19. We look forward to receiving your quotation and thank you for your interest in this project.

Dr. Ashok Manori

(Authorized Signatory)

Name & Designation

Annexure I

Sr. No	Item Name	Specifications
1	Power Quality Analyser (1Nos) and DSO (2Nos)	As per the following specifications

Specifications

Specification Of Three-phase Power Quality Analyzer- 1Nos

The three-phase power quality analyzer should be of portable in nature and supplied with 4 Flexible clamp on current probes with the following features.

Measurement:

- The analyzer should measure
- Three phase and phase wise voltage, current, power, power factor, Cos Phi,
- Energy and demand
- Dips, Swells, interruptions, crest factor and unbalance.
- Transient detection upto 6kV 200kHz on all phases simultaneously
- Inrush current
- Flicker
- Phaser diagram and waveforms
- Frequency
- Harmonics for voltage, current and power upto 50th order, Interharmonics
- Upto seven power quality parameter in one screen according to EN 50160
- Min, Max and Avg value for all RMS measurements.
- Energy loss Calculation in terms of monetary value due to Reactive Power, Neutral current, unbalance and Harmonics
- Inverter Efficiency (automatic calculation of inverter efficiency in terms of % along with input and output values of V,I & Power)

Other features

- Graphical screen with display of measurement, waveform, trends and harmonic spectrum
- The instrument should comply to class A standard as per IEC 61000-4-30.
- The instrument should have the capability for GPS time synchronization for correct time stamp if required
- The instrument should comply to the latest IEC standard for Flicker, Harmonics and power quality
- Mains Signaling recording
- Minimum of 500 samples per cycle for RMS measurement
- Analysis of trend in the meter display itself with curser and zoom function

- Power backup with Standard battery of 8 Hrs and Extended Battery option of 16Hrs
- 8GB (Expandable to 32GB) Memory to store the data upto 400 parameters, event and waveform
- Unlimited (Limited only by Memory size) Screen shots to be stored in the memory
- All the measurement should be recorded for trending automatically without any setup
- The wiring configuration should be displayed in the meter for various configuration (1 phase, star, delta, etc)
- Optically isolated USB Communication port to connect to the PC to download and analyse measurement, waveform, trends and events.
- Software for data downloading and analysis.
- The instrument should be minimum warranted for a period of 3 years.
- The instrument should have the programming capability for CT/PT ratio upto 10000/1.
- Data transfer through wifi SD Card should be available

Detailed specification

Parameter	Range	Accuracy
Voltage	1-1000 V	+/- 0.1% of nominal voltage
Current(RMS)	0.5A - 6000 A	+/- 0.5% +/- 5 counts
Frequency	43 – 57 Hz	+/- 0.01 Hz
Power factor	0-1	+/- 0.033
Cos Phi	0-1	+/- 0.033
Transient	Upto 6kV PV Min time duration 5 micro sec	

Safety rating – 600V Cat IV / 1000V CAT III for both meter and clamp

IP Protection – IP 51 or better

Display resolution – 320 X 240 pixels or better with user adjustable contrast and brightness

Built in Real time clock to facilitate time stamped trending and events.

Operating temp - 0 °C to +50 °C battery only, 0 °C to +40 °C with adapter

Specification of Digital Storage Oscilloscope 200MHz 4 Channel-		2Nos
Parameter		
Channels	4 Nos.	
Bandwidth	200MHz	
Min. V/div @ 1 M Ω	1 mV	
Max. sampling rate	2 Gsample/s	
ADC resolution	8-bit	
Max. Memory depth	2 Mega Points	
Waveform update rate	80,000 waveforms/s	
Rise time	1.75ns	
Display	8 inch 800*600 High Resolution TFT LCD Display	
Bandwidth Limit (-3dB)	20MHz/100MHz	
Waveform Signal Process	+, -, $\times$, $\div$, FFT, FFTrms, d/dt, $\int$ dt, $\sqrt{}$	
Automatic Measurement	36 sets: Pk-Pk, Max, Min, Amplitude, High, Low, Mean, Cycle Mean, RMS, Cycle RMS, Area, Cycle Area, ROVShoot, FOVShoot, RPRESshoot, FPRESshoot, Frequency, Period, RiseTime, FallTime, +Width, -Width, Duty Cycle, +Pulses, -Pulses, +Edges, -Edges, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF, Phase	
Built-in Segmented Memory and Waveform Search Functions	Available	
Interface	RS232C, USB Port (Device and Host)	

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. _____