



# Indian Institute of Technology Kanpur

## Department of Mechanical Engineering

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Professor

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Enquiry No.: IITKME/BB/2018/Piezo

Bid Opening Date: 17/07/2018

Bid Submission Closing Date: 16/07/2018

### **NOTICE INVITING QUATATION**

Sealed Quotations are invited for Piezo Meter System of the following Specifications:

#### **Piezometer System**

Measurement of d33: Various ranges like (very high range, High range, Low range, very low range) with good accuracy and loading as 1.0uF.

Measurement of capacitance, dielectric loss, d31 & d15 and \*d33 (Static Force indicator) .

Capacitance range: 10 pF - 0.1 mF

Accuracy (< 100pF):  $\pm 2\% \pm 0.1$  pF

Accuracy (> 100pF):  $\pm 2\% \pm 1$  pF Test frequency: 1 kHz

dielectric loss (tan d) range: 0.0000 to 0.2000 Accuracy:  $\pm 2\%$

Test Frequency Range: 30 Hz to 300 Hz

Power supply 220-240V a.c. 50-60Hz 0.5A

Accuracy:  $\pm 0.1$  Hz Calibration is at 110Hz

Sample Size: 40- 50 mm in polarization direction.

Force amplitude: By an oscillatory force, by user setting between 0.05 to 0.50 N. Some amount of static force also required to grip the sample at least 10N.

Response Time: d33 Only: 5s to 1% of final reading.

C and tan d: 2s to 1% of final reading

d33, C and tan d: 10s to 1% of final reading

Maximum sample mass: 1 Kg with standard suspension.

Temperature Limits Storage: 0°C to 50°C Operating: 10°C to 40°C

Data storage: store up to at least 100 measurements.

Stand-Alone operation: Simple keypad to control all Piezometer functions. Printing facility directly with standard PC printer, providing tabulated output and statistical analysis.

Remote interface- RS-232C interface, DTE using 9 pin D-connector, 9600 baud

Printer Interface - Parallel printer interface, using 25 pin D-connector

Software: Must be Compatible with MS Windows-7 and above.

#### **General terms and conditions of purchase:**

1. All quotation must reach undersigned before or on 16/07/2018 at 15:00 Hrs.
2. Quotation must be valid for 60 days.
3. Delivery period should not be more than 75 days.
4. The supplier must have supplied similar product to any of the IITs or IISc. (details must be submitted for reference).

5. Minimum Warranty of 1 year at least. Longer warranty period preferred.
6. Quotation should carry proper certifications like proprietary certificate, authorization certificate from manufacturer, etc.
7. Maximum educational discount should be offered wherever applicable.
8. Installation, Testing and training of the product onsite is mandatory.
9. Mention F.O.R. destination or C.I.F. (New Delhi) prices separately if requires import.
10. The Quote should cover insurance and transport up to Kanpur.
11. Concessional rate of GST (@ 5%) will be applicable with reference to Notification No. 45/2017 Central Tax (Rate) dated 14/11/2017. We will provide relevant certificate for this purpose. On import items for research purpose presently the GST applicable is 0% (Zero). DSIR certificate along with CDEC has to be submitted for availing concession. Vendor should use these GST rates in their quotation.
12. Payment term,
  - a) For foreign currency through LC.
  - b) For Rupees payment 90% on delivery & 10% after satisfactory using /working.
  - c) Advance payment up to 100% against bank guarantee.
13. Please do mention tender number clearly on the envelope.
14. The institute is exempted for payment of Excise duty under notification No. 10/97 & partially custom duty (@5.15%), under notification 51/96 and a road permit will be provided, if applicable. The Concessional Form 'C/D' have been abolished w. e. f. Apr 01, 2007.
15. The indenter reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.

Your early response in this matter would be highly appreciated.

Sincerely,

Dr. Bishakh Bhattacharya

Professor

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