



International and Inter University Centre for Nanoscience and Nanotechnology

**MahatmaGandhiUniversity**  
**Kottayam-686560,Kerala,India**

Tel:0481-

2731043,2731669(Office),09447671962(Mobile)

E-mail:<nkkalarikkal@mgu.ac.in>,  
<cnnmgu@gmail.com>

**Dr. NandakumarKalarikkal**  
*Hon:Director*

Date: 01/09/2018

Tender No.11/Qut-Tend/IIUCNN/2018-2019

## INVITING TENDER

Tenders are invited from companies/firms for supplying the instruments mentioned below at the International and Inter University Centre for Nanoscience and Nanotechnology (IIUCNN), Mahatma Gandhi University, Kottayam

Name of the scientific equipment	6.5 digit, True-RMS Benchtop Precision DMM (Detailed specifications are given below)
Last date and Time of submission of relevant documents by speed post	15th September 2018, 3.00 PM
Date and time of opening of technical bid	17th September 2018, 11.00 AM

IIUCNN reserve the right to accept or reject any/all quotations without assigning any reason whatsoever. For more details, please visit <http://iiucnn.com/> & <https://www.mgu.ac.in/>

Regards

Sd/-

Director

## Specification of 6.5 digit, True-RMS Benchtop Precision DMM

<b>Measurements</b>	DC Voltage: Range:100mV to 1000V Max resolution: 100 nV Common mode rejection:120dB A/D Linearity : 0.0002% of measurement + 0.0001% of range Accuracy(@100mV/ 1Year : 0.0037+0.0035
	AC Voltage: Range:100mV to 1000Vrms Measurement Method: AC-coupled true RMS. Measures the AC component of input with up to 1000 VDC bias on any range AC Filter Bandwidth: 3 Hz - 300 kHz Max resolution:100nV Common mode rejection:70dB Accuracy @ 10Hz to 20KHz,(@100mV/1year): 0.06+0.04
<b>AC Voltage</b>	<b>Range:100mV to 1000Vrms</b>
	<b>Resistance: 2wire and 4 wire measurements</b> Range:10Ω to 1 GΩ Measurement Method : Current source referenced to LO input Max resolution:10μΩ Accuracy(@1MΩ/1year):0.01+0.001 Input protection: 1000V on all ranges
<b>DC Current</b>	<b>Range: 100μA to 10A</b>
	Max resolution:100pA@100 Ω shunt Input Protection: Tool-accessible 11 A / 1000 V and 440 mA / 1000 V fuses Accuracy: (@1mA/1Year): 0.05+0.005
<b>AC Current</b>	<b>Range: 100μA to 10A</b>
	Max resolution:100pA Input protection: Tool-accessible 11 A / 1000 V and 440 mA / 1000 V fuses Shunt Resistance: 0.01 Ω for 1 A to 10 A ranges 1 Ω for 10 mA and 400 mA Accuracy@10Hz to 5KHz: (@1mA/1Year): 0.1+0.04
<b>Frequency</b>	<b>Range: 3Hz to 1MHz</b>
	Measurement Method: Flexible counting technique. AC-coupled input using the AC voltage measurement function Input voltage range: 100mV to 1000V Gate Time: 10mS, 100mS, 1S Accuracy@3Hz to 5Hz/Year - 0.1 @(40Hz-300KHz/year): 0.01
<b>Continuity</b>	Continuity Threshold: 1 Ω 100 Ω Test Current: 1 mA Response Time: 300 S/s with audible tone
<b>Diode Test</b>	Test current : 100μA to 1mA Response Time 300 S/s with audible tone
<b>Capacitance</b>	Range: 1nF to 100mF Maximum resolution:1pF Accuracy@10nF(1Year): 1% ±0.5%
<b>Temperature</b>	Range:-200°C to 600°C Sensor: Platinum RT100 Best accuracy:0.06%
<b>Programmable</b>	Limit/Compare/Pass-Fail test facility
<b>Safety</b>	CAT I 1000 V, CAT II 600 V

Measurement features	Should have Trendplot, Histogram and statistics of data
Connectivity	Front and Rear 2×4 Measurement Inputs USB Host Port on Front Panel for Easy Storage of Measurement Data and Instrument Settings RS-232, LAN, and GPIB Ports on Rear Panel for PC Connectivity

Earnest Money Deposit (EMD) calculated @ 1% of the Purchase Assessment Cost (PAC), subject to a minimum of Rs. 1500/-, should be paid by the firm. The E.M.D. should be furnished in the form of Demand Draft in favor of Director, IIUCNN along with sealed tenders. Tender form and other details can be had from the office of IIUCNN on all working days, by paying the Tender Fee @ 0.2% of PAC rounded to the nearest multiple of Rs.100, subject to a minimum of Rs. 400/- and maximum of Rs. 1500/- + GST @ 12%. For ensuring the guarantee, terms and conditions, etc. relating to the article supplied, an Agreement on stamp paper worth Rs.200/- must be submitted by the qualified bidder along with a Security Deposit @ 5% of the PAC. Sealed Envelope containing tenders shall be addressed to International and Inter University Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University Kottayam, 686 560. Payment may be made via DD addressed to the Director, IIUCNN, payable at SBI Mahatma Gandhi University Branch

#### TERMS AND CONDITIONS:-

1. The quoted Price should be inclusive of all taxes/freight/Installation etc
2. Customs/ Excise Duty Exempted price should also be quoted
3. The tenders should have at least Three Months validity
4. Brand name of the equipments should be mentioned and Brochure to be enclosed
5. Warranty conditions, nearest servicing centers details, user reference, necessary supporting catalogues and demonstration should be provided
6. The right to accept or reject tenders without assigning any reason rests entirely with the undersigned
7. If the product has a Valid DGS & D rate contract, it may be quoted
8. If the date of receipt and opening of tenders is declared a holiday, the next working day shall be the last day for the purpose.
9. Atleast two users should be trained by the application engineers during the time of installation.

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