# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING POST SRINIVASNAGAR, MANGALORE – 575 025 (D K)

Phone: (0824) 2474000. Fax: (0824) 2474033

E- mail: info@nitk.ac.in Website: http://www.nitk.ac.in



#### **NOTICE INVITING QUOTATION**

Notification, No: NITK/EEE/SERB/1489 Dated: 13-09-2022

Notification: No. NITR/LLL/SLND/1409	Dateu. 13-09-2022
Name of Goods	1) Digital Storage Oscilloscope 2) AC/DC Current Probe
Estimated Amount:	₹ 2,20,000 (Including GST)
Time for Supply of item after release of Purchase order	120-140 <b>(Days)</b>
Document Download / Sale Start Date	13-09-2022 3:30PM
Clarification Start Date	14-09-2022 9:30AM
Clarification End Date	25-09-2022 5:30PM
Bid Submission Start Date	13-09-2022 3:30PM
Last Date for submission of bids	06-10-2022 before 3:00 PM
Bid Opening Date	07-10-2022 9:30AM
Address for Submission of bids	Dept. of Electrcal & Electronics Engineering, NITK Surathkal Dr. Md Waseem Ahmad, Assistant Professor Mob.No:7753058434



# NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

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Notification No: NITK/EEE/SERB/1489.

#### NOTICE INVITING QUOTATION (NIQ)

The National Institute of Technology Karnataka, Surathkal (in short – NITK, Surathkal) is an Institute Of National Importance Under Ministry of Education Govt of India, imparting Technical Education and engaged in Research Activities. It is proposed to procure the items for the departmental academic/research activities.

Sealed Quotations as per the Price Schedule given in this NIQ are invited for the following items subject to the terms and conditions, from the reputed manufacturers or its authorised dealers so as to reach on or before scheduled date and time. The quotations in the firm's Business letter head should be address to the "Director, NITK, Surathkal". The envelope shall be superscribed with the Quotation Notification Number and the Name of the Goods for which quotation is submitted.

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Sd/-[HOD]

Date: 13-09-2022

Note: Institute shall not be responsible for any postal delay about non-receipt /non-delivery of the bids or due to the wrong addressee.

### SECTION-1 Terms and Conditions

- 1. The rates should be quoted for preferably FOR destination from supply within India.
- 2. The bidder shall indicate the excise duty exemption for the goods if applicable.
- The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any. The rate should be quoted in INR only
- 4. Rate quoted should be inclusive of Testing, commissioning and Installation of equipment and Training.
- 5. Payment: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier.
- 6. Guarantee/Warrantee period should be specified for the complete period should be specified in section 3 of this tender document.
- 7. Period requirement for the supply and installation of item should be specified in section 3 of this tender document.
- 8. In case of dispute, the matter will be subject to Mangalore Jurisdiction only.

# SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

[ To be filled up by the Department / Centre of NITK, Surathkal ]

Item(s) Name to be Procured : 1) Digital Storage Oscilloscope

2) AC/DC Current Probe

Brief Specifications of the Item(s) : 1) DSO Digital Storage Oscilloscope- 200MHz, 4 Channel, 1GS/sec,

200,000 waveforms per sec,≤50ppm time base accuracy, 4 passive probes, minimum 3 year warranty, ≥ 7inches display, including

standard accessories.

2) AC/DC Current Probe- Clamp on type, 100kHz, 100A, with

minimum 3 year warranty.

(Attached Additional Sheet of specifications of both items)

Quantity : 01 each

Any other details / requirement :

Warranty Period required : 36 months

Delivery Schedule expected after placement of Purchase order

(in Weeks) : 18-20 weeks

# SECTION 3 PRICE SCHEDULE

[ To be used by the bidder for submission of the quotation]

1.	Item Name	:	
2.	Specifications (Conforming to Schedule of requirements Enclose additional sheets if necessary)	:	
3.	Currency and Unit Price	:	
4.	Quantity	:	
5.	Item Cost (SI No. 3 * SI. No. 4 )	:	
6.	Taxes and Other Charges (i) Specify the type of taxes and duties in percentages and also in figures. (ii) Specify Other Charges in figures.	:	
7.	Warranty Period (Conforming to the Schedule of requirements)	:	
8.	Delivery Schedule (Conforming to the Schedule of requirements)	:	
9.	Name and address of the Firm for placing purchase order	:	
10.	Name and address of Indian authorized agent ( in case of imports only)	:	
Signat	ure of the Bidder:		
Name	and Designation:		
Busine	ess Address :		
Place: Date:			Seal of the Bidder's Firm

# SECTION 4 CONTRACT FORM

[ To be provided by the bidder in the business letter head]

- 1. (Name of the Supplier's Firm) hereby abide by the delivery schedule mentioned in this document for supply of the items if the purchase order is awarded.
- 2. The item will be supplied conforming to the specifications stated in this document without any defect and deviations.
- 3. Warranty will be given for the period mentioned in this document and service will be rendered to the satisfaction of NITK, Surathkal during this period.

Signature of the Bidd	er:	
Name	:	
Business Address	:	
Place : Date :		Seal of the Bidder's Firm

**Specifications of Digital Storage Oscilloscope** 

S.No	Parameter Parameter	Value
1.0	Specifications of Oscilloscope	
1.1	Number of Analog Channels	4 more
1.2	Bandwidth	≥200MHz
1.3	Rise Time	≤ 1.7 ns
1.4	Record Length Per Analog Channel Simultaneously	≥ 1 Million points
1.5	Sampling Rate Per Analog Channel Simultaneously	≥ 1 GS/sec
1.6	Input Coupling	AC, DC, GND
1.7	Input Impedance	$1M\Omega \pm 2\%$ , $10 \text{ pF} \pm 3.5 \text{pF}$
1.8	Vertical Sensitivity	500 μV/div to 10 V/div
1.9	Vertical Resolution	$\geq 8$ bits
1.10	Time Base Range	2 ns/div to 50 s/div (or better)
1.11	Time Base Accuracy	≤ 50 ppm ± 5 ppm
1.12	Minimum Detectable Pulse Width	≤ 10 nanosecond
1.13	Channel-to-Channel Isolation	Better than 100:1 at 200 MHz
1.14	I/O Interface	USB/Ethernet
1.15	Frequency Analysis Feature	Required
1.16	Display Type	Colour TFT
1.17	Display Size	≥ 7 inches
1.18	USB compatibility	Possibility to save screen shots and traces into USB pen drive.
1.19	Serial protocol analysis	Standard: I <sup>2</sup> C, SPI, UART/RS-232, CAN, LIN

1.20	Segmented memory / Mask/limit testing/ Built-in training signals/ Integrated digital voltmeter/ Frequency counter	Standard
1.21	Waveform math	Add, subtract, multiply, divide, FFT (magnitude and phase), low pass filter
1.22	Automatic measurements	14 amplitudes, 14 timing, and 4 pulse count measurements
1.23	Waveform update rate	≥200,000 waveforms per second
3.0	<b>General Specifications</b>	
3.1	Power Source	100 to 240 V, 50/60 Hz
3.2	Accessories to be supplied	4 Passive ×1 Probes of ≥ 200MHz
3.3	Warranty	Minimum of 3 year from the date of supply. Warranty certificate to be issued with the item.
3.4	User Manual	Detailed user manual/ operating instructions in English is to be provided in hard copy.
3.5	Service & Support	Should be available India, Minimum 5 Years Support
3.6	Delivery Period	18 to 20 weeks

Specifications of AC/DC Current Probe			
Sl.No	Parameters	Specification	
1	Туре	Clamp on	
2	Frequency range (Bandwidth)	DC to 100KHz (-3 dB)	
3	Max input current	100 A peak	
4	Output	10 mV/A, 100 mV/A	
	Current range	100 mV/A:100 mA to	
5		10 A peak	
3		10 mV/A:1 to 100 A	
		peak	
6	Output signal	1000 mV peak max	
		1) Range 100 mV/A (50 mA to 10 A peak)	
		Accuracy :≤ Range 3% of reading ± 50 mA	
7		2) 10 mV/A (500 mA to 40 A peak)	
,		Accuracy Range : $\leq 4\%$ of reading $\pm 50$ mA	
		3) 10 mV/A (40 A to 100 A peak)	
	AC current accuracy	Accuracy (40 A to 100 A peak)≤ 15% max at 100 A	
8		Range 10 mV/A: 480 μV	
	Noise	Range 100 mV/A: 3 mV	
9	Insertion impedance	0.01 Ω (50/60 Hz)	
10	Maximum common	600 Vrms CAT II or 300 Vrms CAT III	
	mode voltage		
11	Influence of adjacent conductor	< 0.2  mA/A AC	
12	Connector	BNC (Also BNC female to banana lead adapter is	
		required for connecting to multimeter)	
13	Battery level indicator and	Indication Required	
	overload	1	
14	2-m coaxial cable with an	Required	
15	insulated BNC. Power requirements	Battery Operated	
16	-	9 V alkaline (NEDA 1604A, IEC 6LR61)	
17	Battery Type Law bettery Indications	Green LED on when $\leq 6.5 \text{ V}$	
	Low battery Indications		
18	Battery life	55 hours typical	
19	Warranty	3 Year	
20	Operating Manual,Service Manual,User Guide	Softcopy to be provided	
21	Compatibility	Should be compatible with DSO	
22	Delivery Period	18-20 weeks	