



DEPARTMENT OF ENGINEERING DESIGN  
INDIAN INSTITUTE OF TECHNOLOGY MADRAS, IIT POST,  
CHENNAI - 600 036, INDIA  
PHONE: 044 22575630, FAX: 044 22574732

Dr. Deepak Ronanki  
Assistant Professor

INFORMATION OF TENDER TO UPLOAD IN CPP PORTAL.

DATE : 09/06/2023

1.	Purchase from	INSTITUTE
2.	Tender Reference No.	ED/DEEP/001/06/2023-24
3.	Name of the item	200MHz Digital Storage Oscilloscope
4.	Tender Category (GOODS/WORKS/SERVICES)	GOODS
5.	Type of Tender (Limited)	Limited
6.	No. of Bids : ( 1/ 2)	2
7.	Tender Start Date	12-06-2023
8.	Tender Due Date & Time	26-06-2023
9.	Bid Opening Date & Time	27-06-2023
10.	Bid Opening Venue	CONFERENCE HALL NO. 103
11.	Pre-bid meeting Date & Time	-
12.	Pre-bid Meeting Venue	-
13.	Quotation Validity Days	30 DAYS
14.	Tender Validity Days	60 DAYS
15.	Completion of work	-
16.	Quotation May be Sent to (Inviting Officer Name & Address)	Dr. Deepak Ronanki, Dept. of Engineering Design, IIT Madras -36
17.	No of documents to be uploaded in CPP portal	2

C.S. Shankar

विभागाध्यक्ष / Head  
अभियांत्रिकी अभिकल्प विभाग  
Department of Engineering Design  
आई आई टी मद्रास, चेन्नई-६०० ०३६  
IIT Madras, Chennai-600 036

R. Deepak  
Dr. Deepak Ronanki

Dr. Asokam. T.

Dr. Kavitha Annachalam

Dr. Nishu Kumar Patel.



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**Dr. Deepak Ronanki**  
**Assistant Professor**

**Ref No: ED/DEEP/001/06/2023-24**

**Date: 12-06-2023.**

**Due Date: 26-6-2023**

**Dear Sir,**

Quotations are invited in duplicate for the various items **shown below**/overleaf/enclosed list.

1. The quotations are to be in **two parts** as:  
**Technical Offer and as Commercial offer**  
The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in one bigger envelope duly sealed and super scribed with reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above.
2. The quotations duly sealed and super scribed on the envelope with reference no. and due date, should be addressed to the undersigned so as to reach him or before the **due date** stipulated above.
3. Quotations should be valid for 60 days from the due date and period of delivery be indicated.
4. Local firms to quote for free delivery to this Institute. If quoted for Ex-godown delivery charges are indicated separately.
5. Relevant literature pertaining to the items quoted with full specifications.
6. Sales Tax/General Taxes/ED if applicable and such other taxes legally legible and intended to be claimed should be distinctly shown along with the price quoted. If this is not indicated no such claim will be admitted at any stage.
7. Goods should be supplied in carriage paid and insured.
8. Goods shall not be supplied without an official supply order.
9. Every effort will be made to make payment within 30 days from the date of bill/acceptance of goods whichever is later.
10. The Guarantee period of the item may be indicated clearly.
11. In case of LC. Payment 90% of the payment will be made after completion of the supply. The balance 10% of the payment will be made after satisfactory installation of the equipment.
12. IIT Madras is exempt from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand. IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.
13. **Acceptance and Rejection-** I.I.T. Madras has the right to accept the whole or any part of the Tender or portion of the quantity offered or rejects it in full without assigning any reason.
14. **Fax and Email quotations are not acceptable.**

Yours faithfully,

  
**Dr. Deepak Ronanki**

**Item required: 200MHz Digital Storage Oscilloscope**



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	<p>and Hardware-based mask limit &amp; measurement limit testing.</p> <ul style="list-style-type: none"><li>❖ Independent vertical control knobs per channel for fast operation.</li><li>❖ Dedicated Search and Navigation Helps you Navigate Deep Memory</li><li>❖ Display: 8.5" WVGA Capacitive Touch Colour LCD Display</li><li>❖ Standard calibration cycle 3 Years</li><li>❖ Continuous record the trace data for all channels and measurement trend data logging</li><li>❖ Accessories: 4 Nos Passive Probe</li><li>❖ Maximum Input: 300Vrms</li><li>❖ Storage Facilities: Internal Memory &amp; Built-in-Front Panel USB Flash Memory Port</li><li>❖ Interfaces Required: USB, LAN, VGA</li><li>❖ USB keyboard and mouse are supported for additional ease of use.</li><li>❖ Input Power: 240V AC, 50Hz</li></ul>	
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**Dr. Deepak Ronanki**

  
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**Technical Specifications:**

<b>General Specifications</b>		
<b>Item Name</b>	<b>Item Description</b>	<b>Quantity</b>
<b><u>200MHz Digital Storage Oscilloscope</u></b>	<p style="text-align: center;"><b><u>200MHz Digital Storage Oscilloscope</u></b></p> <ul style="list-style-type: none"> <li>❖ Display Update Rate: &gt; 950,000 Waveforms/s in all operating modes</li> <li>❖ Analog Channels: 4 Ch with 200MHz Bandwidth</li> <li>❖ Sensitivity: 1mV/div to 5V/div</li> <li>❖ Acquisition memory for Scope: 4MB &amp; also Segmented Memory should be available</li> <li>❖ Sample Rate for Scope: 5 GSa/s half channels, 2.5 GSa/s all channels</li> <li>❖ Min Detectable Pulse Width: 5ns</li> <li>❖ Input impedance Selectable: 1 M<math>\Omega</math>, 50 <math>\Omega</math></li> <li>❖ Time base: 2 ns/div to 50 s/div</li> <li>❖ Time Base Accuracy: <math>\pm</math> 1.6 ppm</li> <li>❖ Mode: Main, zoom, roll, XY</li> <li>❖ Standard 8-digit Frequency counter, DVM, gated FFT, Advance Math, Waveform &amp; measurement histograms and totalizer</li> <li>❖ Should be License based upgradeable in Bandwidth.</li> <li>❖ Educator and training kit</li> <li>❖ Should be License based upgradeable from DSO (Digital storage oscilloscope) to MSO (Mixed signal oscilloscope).</li> <li>❖ Logic Channels: 16 Channel with Logic levels for TTL, CMOS, ECL &amp; User defined levels (Optional).</li> <li>❖ Inbuilt 20 MHz arbitrary/function generator</li> <li>❖ Waveforms: Sine, square, ramp, pulse, DC, noise, sine cardinal (sinc), exponential rise, exponential fall, cardiac, Gaussian pulse, and arbitrary</li> <li>❖ Modulation types: AM, FM, FSK</li> <li>❖ Trigger: Auto Level, Normal, Single</li> <li>❖ Trigger Modes: Zone touch Trigger, Edge, Pattern, Pulse Width, Runt, Set up / Hold, Rise Time / Fall Time, Time Qualified Pattern, OR, Video &amp; USB</li> <li>❖ Combination Triggering: Should be able to set trigger condition Simultaneously &amp; trigger on both Analog &amp; Digital Channels</li> <li>❖ Serial Protocol Triggering and Decoding: Standard: I<sup>2</sup>C, SPI, I<sup>2</sup>S, RS232/422/485/UART, and USB-PD &amp; Optional: CAN, CAN-FD (CAN-FD ISO), CAN-dbc, LIN, LIN symbolic, FlexRay, SENT, CXPI</li> <li>❖ Frequency Response Analysis (Bode plot), Power Analysis Application, Enhanced HDTV video analysis</li> </ul>	<p>1 No</p>