

	INDIAN INSTITUTE OF TECHNOLOGY MADRAS Chennai 600 036 Telephone: (044) 2257 4676 E-mail: aramesh@iitm.ac.in	
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Prof. Ramesh A
Project Coordinator

Ref: ME/1920/ARAM/OSCILLO
Dated: 17.03.2020

Limited Tender No: ME/1920/ARAM/OSCILLO

Due Date: 08.04.2020, 3:00pm

Pre-Bid meeting: - Not required.

Bid opening meeting on Due Date: 08.04.2020, 4:00pm

Dear Sir/Madam,

On behalf of the Indian Institute of Technology Madras, offers are invited for the supply of “OSCILLOSCOPE” conforming to the specifications given in (Annexure-I).

Terms and Conditions of Limited Tender

1. **Preparation of Bids:** - The Limited tenders should be submitted under **one bid system** (i.e.) Technical-cum-Financial bid.
2. **Delivery of the tender:** - The tender shall be sent to the below-mentioned addresses either by post or by courier (duly sealed and super scribed on the envelope with the reference No and due date) so as to reach the following address before the due date and time specified in our Schedule:

**Prof. Ramesh A,
Department of Mechanical Engineering
IIT Madras
Chennai - 600 036.**
3. **Price:** - The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges to **Department of Mechanical Engineering.**
 - a. The offer/bid should be exclusive of taxes and duties. The percentage of tax & duties should be clearly indicated separately. IIT Madras is eligible for concessional GST and relevant certificate will be issued.
 - b. In case of import supply, the price should be quoted without custom duty. IIT Madras is exempted from levy of IGST on Imports and eligible for concessional custom duty (not exceeding 5%) and the price should be quoted on EX-WORKS and CIP (stating the Cost, Insurance, Freight separately) and indicating the mode of shipment.
4. **Terms of Delivery:** - The item should be supplied to our Departments as per Purchase Order. In case of import supply, the item should be delivered at the cost of the supplier to our Institution. The Installation/Commissioning should be completed as specified in our important conditions.
5. **Catalogue:** Original catalogue (not any photocopy) of the quoted model duly signed must accompany the quotation in the Technical-cum-financial bid
6. **Late offer:** - The offers received after the due date and time will not be considered
7. **Payment:** - No Advance payment will be made for Indigenous purchase. However, 90% Payment against Delivery and 10% after installation are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful installation wherever the installation is being done).

8. **Advance Payment:** - No advance payment is generally admissible. In case of specific percentage of advance payment is required, the Vendor has to submit a Bank Guarantee from a Nationalized Bank of India equal to the amount of advance payment.
9. **On-site Installation:** - The equipment or machinery has to be installed or commissioned by the successful bidder within number of days (as prescribed by PI's) from the date of receipt of the item at site of IIT Madras.
10. **Warranty/Guarantee:** - The offer should clearly specify the warranty or guarantee period for the machinery/equipment.
11. **Validity:** Validity of Quotation not less than 60 days from the due date of tender
12. **Bid Opening:** The bid will be opened on **08.04.2020, 4:00 pm at the Department of Mechanical Engineering, IIT Madras.**
13. **Accept /Reject:** IIT Madras reserves the full right to accept / reject any tender at stage without assigning any reason.
14. **Settlement of Disputes:** Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Chennai in Tamil Nadu.
15. **Risk Purchase Clause:** - In the event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from other sources on the total risk of the supplier under risk purchase clause.
16. **Unsolicited offers:** "This notice is being published **for information only** and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected registered suppliers. Unsolicited offers are liable to be ignored. However, suppliers who desire to participate in such tenders in future may apply for registration as per procedure." The Website for Registration of vendors is <http://web.iitm.ac.in/supplier/> and the mail address for queries is "workflow@rt.iitm.ac.in".

Yours sincerely,

**Prof. Ramesh A,
Department of Mechanical Engineering
IIT Madras
Chennai - 600 036.**

Tender for Oscilloscope - Specifications

Sl. No	Parameter	Specifications required
1	Bandwidth	200MHz
2	No of Analog Channels	4
3	A/D resolution	8-bits
4	Input impedance	1 Mohm
5	Input coupling setting	AC, DC, GND
6	Vertical (voltage) accuracy	2mV - 10V or better
7	Bandwidth Limits	20 MHz (minimum bandwidth, higher will be preferred)
8	Maximum Input voltage	250V (rms) 350V (peak) minimum without attenuation probe
9	No of Digital Channels	8 (minimum)
10	Maximum Sampling Rate on all Channels	1GS/s (Minimum sampling rate. Higher sampling rate is preferred, when other requirements are met)
11	Maximum Memory Length	At least 1Mpt / Ch (Higher memory length is preferred)
12	Trigger modes	Auto, Normal, Single
13	Trigger Types	Edge/Pulse/Logic/Pattern/Trigger/Rise & Fall time (any other additional trigger features such as CAN, UART, etc based trigger is preferred, when other requirements are met)
14	Measurement types	Max, Min, P-P, High, Low, RMS, Mean, Pulse Count, Edge Count, Freq, Period, Burst, Rise, Fall, Width, Duty, Delay (any other additional measurement features are preferred, when other requirements are met)

15	Cursor measurement	Standard cursor measurements
16	Search function	Standard search and navigate functions
17	Math Function	a) Standard Math functions to be available b) Features like FFT, LP/HP Filters, Window function, etc. will be preferred
18	Display	8- Inch or above TFT color display
19	Display Resolution	800 x 480 pixel (or) above (higher resolution is preferred)
20	Display & Zoom functions	Horizontal and vertical zoom/scale functions
21	Snapshot	To be Available
22	Built-in storage media	2 internal Waveforms and 10 setups
23	Communication	USB Additional Ethernet preferable
24	Software	Software to connect the scope and PC/Laptop via LAN/USB and view waveforms and transfer acquired data to be provided. (Software compatibility/availability with all the future Windows OS versions at no extra cost to be ensured as a part of the scope)
25	Wave form updation Rate	$\geq 75,000$ wave forms /sec
26	Probes	All essential probes should be a part of the Supplied Oscilloscope

Essential Supplier Qualification Requirements:

- The vendor to be qualified for the opening of the bid should have supplied three numbers of the same system or a higher version in the last two years to IITs/IISc or Central Government labs. Proof of supply has to be provided along with the bid.

Warranty:

Three Years.