

**Indian Institute of Technology, Kanpur**  
**Department of Mechanical Engineering**

**Tender Document**

**Sub: ENQUIRY LETTER FOR HOT WIRE ANEMOMETER AND HOT-FILM PROBES**

**Tender Enquiry Number: IITK/ME/PRJ/2022-23/08**

**Enquiry Date: 24.05.2022**

**Closing Date: 05.06.2022**

**Opening Date: 06.06.2022**

**Quotations are invited for the above-mentioned subject as per the technical specifications given below:**

**Specifications**

**Hot-wire anemometer:**

1. A constant-temperature hot-wire anemometer (CTA) system/module that works with a single hot-film probe for measurements of wall shear stress is required.
2. Anemometer bandwidth: DC to 10 kHz or better.
3. Allowable range of probe cold resistance: 4-16 Ohm or wider range is desirable.
4. Option of low-pass filters with multiple user-selectable cut-off frequencies is desirable.
5. Provision of adjusting DC offset and DC gain is desirable.
6. Noise: less than 1 mV peak-to-peak (top of bridge) at DC-5 kHz bandwidth desirable.
7. The anemometer should work with any ADC card with a +/-10 V input voltage range.
8. Operating temperature range: 0° to 50°C.
9. Accessories such as power supplies and adaptors, if any, and BNC cables must be included.

**Hot-film sensor:**

10. Two surface-mounted hot-film probes are required to measure wall shear stress. The probes are to be mounted flush with the wall and must be reusable, i.e., it should be possible to unmount them and use in a different setup.
11. The active length of the sensor must be 1 mm or smaller, and the active width of the sensor must be 0.25 mm or smaller.
12. Working fluid: water, aqueous solution of glycerin, and aqueous solution of Xanthan gum + glycerin.
13. The probes must be compatible with the CTA provided.
14. The probe-CTA system should have a bandwidth of DC-5 kHz or better.
15. All the accessories such as probe mounts, cables, etc. must be provided.

**Note: The quotations should reach the undersigned in sealed envelopes before 5 pm on 5th June 2022.**

**Indentor Details:**

**Dr. Pranav Joshi,**  
**Assistant Professor,**  
**Department of Mechanical Engineering**

**Terms and Conditions:**

1. Maximum discount should be offered.
2. Quotations must be valid for minimum 60 days
3. Delivery period will be 6-8 weeks after receipt of purchase order.
4. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
5. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
6. Manufacturer authorization certificate from principal company is required if you are a local supplier
7. Include Preparatory Item Certificate if applicable.
8. The Institute reserves the right of accepting or rejecting any quotation or bid without assigning any reason thereof.
9. All prices should be mentioned F.O.B/CIP/CIF New Delhi or Destination at IIT Kanpur.
10. Payment Terms: 100% after supply of the materials.
11. Bidder must clearly mention their contact details with address and email ID.



**Dr. Pranav Joshi**