



भारतीय उष्णदेशीय मौसम विज्ञान संस्थान  
INDIAN INSTITUTE OF TROPICAL METEOROLOGY,  
(पृथ्वी विज्ञान मंत्रालय का स्वायत्त संस्थान, भारत सरकार के अधीन)  
(An Autonomous Institute of the Ministry of Earth Sciences, Govt. of India)

No. PS/125/112/2011

Date :

Dear Sir,

We are interested in procurement of the following items. You are, therefore, requested kindly to submit your Quotation / Pro-forma Invoice in triplicate so as to reach this Institute on or before **06 September 2011 up to 12:00 hrs.** which will be opened on same day at **15:00 hrs.** The envelope should be super scribed "Enquiry Number PS/125/112/2011 due on **06 September 2011 up to 12:00 hrs.**"

| Sr. No. | Description of Stores   | Unit | Quantity |
|---------|---|------|----------|
| 01      | <b>Supply &amp; Installation of Three Axis High Frequency Anemometer along with Data Acquisition System (3-Axis Ultrasonic Anemometer)</b><br><br><b>Specifications: As per the Enclosure</b> | Set  | 01       |

The proforma invoice shall indicate the following information and also accompany relevant technical literature.

1. FOB / FCA value including packing, forwarding and inland freight charges.
2. C&F / CIF Mumbai (INDIA) value by airfreight.
3. Please indicate the name & address of your Indian agent. Please also indicate the amount of agency commission payable to him in Indian currency after the receipt of the consignments in good condition at our Stores and in case of equipment after the satisfactory installation & commissioning. Indian Foreign Exchange & Regulations Act do not permit the inclusion of Indian agency commission, discount or like rebates allowed by foreign suppliers in FOB value, payable to their Indian agents. Such commission, discount etc., if any, must be indicated separately in your offer;
4. Indicate the names of the Indian reputed organizations where you have supplied the similar equipment and may attach the satisfactory performance report of the equipment from users;
5. If you have supplied identical or similar equipment to other Govt. Organization CSIR/Labs/Institute., the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid;
6. Fax/e-mail tenders will not be considered

P.T.O.

तार : ट्रॉपमेट, पुणे Grams : TROPMET, PUNE

फैक्स : Fax : (020) 25893825 दूरभाष : Telephone : 25893600 / 25893675 - 81

डॉ. होमी भाभा मार्ग, पाषाण / Dr. Homi Bhabha Road, Pashan, पुणे / Pune - 411 008 ( भारत / India )

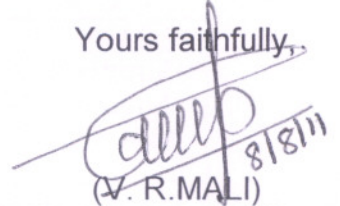
7. Please indicate clearly all bank charges (inside & outside India) shall be borne by the supplier/ beneficiary.
8. Details of services to be rendered by you.
9. The offer may be kept valid for minimum period of 180 days.
10. Proprietary Certificate in Original / Copy of Patent Certificate.
11. Country of Origin.
12. Terms & Period of Warranty.

We prefer to release the payment on Bill basis (excluding Indian agency commission) after the receipt of consignment in good condition. Alternatively, depending upon the value and foreign exchange regulations the payment can also be considered through Sight Draft/Letter of Credit through the State Bank of India for the order value excluding the Indian agency commission.

The payment shall be made by way of Letter of Credit through the State Bank of India, Pune - 411 001 (INDIA) excluding the Indian Agency Commission which shall be paid directly to Indian Agents in Indian rupees after receipt of materials in sound condition. Insurance shall be arranged by us if the mode of dispatch is air-freight.

Thanking you,

Yours faithfully,

A handwritten signature in black ink, appearing to read 'V. R. MALI', is written over a horizontal line. To the right of the signature, the date '8/8/11' is written vertically.

(V. R. MALI)  
Senior Technical Officer-II  
For Director

**INDIAN INSTITUTE OF TROPICAL METEOROLOGY  
PASHAN, PUNE – 411 008 (INDIA)**

(Enclosure to Enquiry Letter No. PS/125/112/2011/

dated 03.08.2011)

**Specifications of "Three Axis High Frequency Anemometer along with Data Acquisition System (3-Axis Ultra-Sonic Anemometer)" – Qty 01Set**

**Wind Speed Specifications**

**Range:** 0-45m/s

**Accuracy** <1.0% RMS (0-30m/s) for wind incidence up to  $\pm 30^\circ$  from the horizontal

**Resolution:** 0.01m/s

**Wind Direction Specifications**

**Range:** 0-359° or 1-360°

**Accuracy:** 0.5 - 2° (0-30m/s)

**Resolution:** 0.1°

**Sonic Temperature Range:** -40°C to +60°C

**Resolution:** 0.01°C

**Speed of Sound Range:** 300 - 370m/s

**Resolution:** 0.01 m/s

**Accuracy** <  $\pm 0.5\%$  (0-30°C)

**Measurement**

**Internal Sample Rate:** 20Hz (32Hz optional)

**Output Rates:** 1, 2, 4, 8, 10, 16, 20 Hz (32Hz option)

**Units of Measure:** cm/s, m/s, mph, km/h, knots, ft/min

**Output Formats:** UVW, Polar, NMEA

**Averaging:** Flexible 0-3600 s

**Digital Output**

**Communication:** RS232, 422, 485

**Baud Rates:** 1200 - 115200

**Format:** User programmable ASCII out configuration

**Data Acquisitions System:** Computer (Laptop) for display, control, with licensed system & application software (Upgradable on free of cost) with network connection to a site communications computer for automatic data transfer. This connection should allow remote access to the computer for upgrading or troubleshooting.

**Power Requirement**

**Anemometer:** 9-30V DC (25mA-110mA)

**Environmental**

**Humidity** <5% to 100% RH

**Operating Temperature:** -40°C to +60°C

**Precipitation:** 0.5-300mm/hr

**Analogue Outputs (Optional)**

**Resolution:** (12 or 14 bits) 4 channels available

**Selectable Range:** User selectable full-scale wind speed

**Output Type:** 0-20mA, 4-20mA, 0-5V,  $\pm 2.5V$ ,  $\pm 5V$

**Analogue Inputs (Optional)**

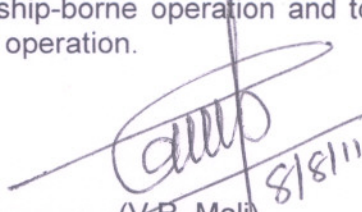
**Resolution:** (12 or 14 bits) Up to 4 single ended or 2 differential

**Input Type:**  $\pm 0$  to  $\pm 10V$

**Warranty:** Maximum permissible years warranty with extended warranty

**Mechanical:** Light Weight, Portable

**Essential Accessories / Spares:** Suitable mounts for ground and ship-borne operation and toolkit for field operations/ maintenance and essential spares for next few years' operation.

  
(V.R. Mali) 8/8/11  
Senior Technical Officer-II  
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भारतीय उष्णदेशीय मौसम विज्ञान संस्थान  
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(An Autonomous Institute of the Ministry of Earth Sciences, Govt. of India)

सं. पी. एस. / No. PS/125/112/2011/

दिनांक / Date :

मेसर्स. / M/s.

प्रिय महोदय / Dear Sirs,

“दिनांक \_\_\_\_\_ की पूछताछ से \_\_\_\_\_ की अनुक्रिया में दिनांक \_\_\_\_\_ की नवोदित दर सूची,” लिफाफे पर लिखे मुहरबंद निवोदित दर सूची निम्नलिखित भण्डारों की आपूर्ति के लिए संस्थान दिनांक \_\_\_\_\_ के 12.00 घंटों तक निमंत्रित है जिन्हे उसी दिन 15.00 घंटों तक खोला जाएगा।

Quotation in sealed cover superscribed there on Quotation due on **06/09/2011** response to Enquiry No. **PS/125/112/2011** dated **03/08/2011** are invited for the supply of under-mentioned stores so as to reach this institute latest by 12-00 hours on **06/09/2011** which will be opened on the same day at 15-00 hours.

सामान्यतः खोलने के दिनांक से कम से कम 180 दिनों की अवधि तक यह निवेदित दरसूची वैध रहेगी।

The quotation shall normally remain valid for a minimum period of 180 days from the date of opening

इस पष्ठ की दूसरी और छपे अनुदेबजों को ध्यान में रख कर निवोदित दरसूची भरी जाएगी।

The quotation shall be filled in with the consideration to the instruction printed overleaf.

| क्रम सं.<br>Sr. No. | भण्डार का विवरण<br>Description of Stores  | इकाई<br>Unit | मात्रा<br>Quantity |
|---------------------|---|--------------|--------------------|
| 01                  | <b>Supply &amp; Installation of Three Axis High Frequency Anemometer along with Data Acquisition System (3-Axis Ultrasonic Anemometer)</b><br><br><b>Specifications: As per the Enclosure</b> | <b>Set</b>   | <b>01</b>          |

Note:- (1) Enquiry Letter No. and due date should be mentioned on the top of envelop.  
(2) The Technical Literature should be enclosed along with the quotation.

एस.टी./सी.एस.टी./आदि के लिए संस्थान कोई रियाती फार्म नहीं दे सकता।  
This Institute is unable to furnish any Concessional form for S.T / C.S.T. / etc.

भवदिय / Yours faithfully,

  
(V. R. Mali) 8/8/11  
Senior Technical Officer - II  
for Director

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# निविदा प्रस्ताव के लिये अनुदेश / INSTRUCTIONS TO TENDER

1. नियत तारीख के बाद प्राप्त दर सूची पर विचार नहीं किया जाएगा।

Quotation received after the due date will not be considered.

2. दर सूची सुवाच्य रूप में भरी जानी चाहिये और शब्दों पर शब्द /सुधार, काटछांट विलोपन यदि हो तो उनको सटीक अनुप्रमाणित करना चाहिये और आपके शीर्षपत्र पर होना चाहिए।

Quotation must be filled in legibly and overwriting/corrections, erasures etc. if any, must be duly attested, and ON YOUR LETTER HEAD ONLY.

3. पूछताछ पत्र में बताई इकायों के अनुसार दर सूचित किया जाना चाहिये। विशेष रूप से उल्लिखित इकाइयों से अलग इकाइयों पर यदि दर बताई जा रही है तो इन इकायों के सम्बन्ध का विवरण दिया जाएगा।

The rates shall quoted according to the units indicated in the enquiry letter. When the rates are quoted in units different from those specified, the relation between the units shall be furnished.

4. निवोदित भण्डार अधिमान्य रूप से तत्सम्बन्धित भारतीय मानक विनिर्देश के अनुसार होना चाहिए।

The Stores offered shall preferably be according to the relevant Indian Standard Specification.

5. निवोदित दर सूची में सुपूर्दगी की सही अवधि तथा सुपुर्दगी की शर्तें बताई जानी चाहिए।

The exact delivery period and terms of delivery shall invariably be mentioned in the quotation.

6. "पाषाण में इस संस्तान भवन से सुपूर्दगी। (स्थानिक फर्मों के लिए) और "एफ ओ आर पुणे" (बाहर गांव के फर्मों के लिए) सुपूर्दगी" के आधार पर निवेदित दरों को वरीय माना जाएगा।

preference shall be given to rates quoted as delivery at this Institute premises at Pashan (for local firms) and as FOR Pune (for outstation firms)

7. दरों में वरीय रूप से सब प्रभार कर ड्यूटी आदि में समाविष्ट करना चाहिए साथ ही इन प्रभारों को सुस्पष्ट और पृतक दिखाया जाना चाहिए।

The rates preferably include all charges, taxes, duties etc., also these charges shall be shown distinctly and separately.

8. विक्री कर की रियायत दर के लिए फार्म (डी) या फार्म (ए.एफ.) जो भी उपयुक्त है वह संस्थान दे नहीं सकेगा।

The Institute will not be in position to furnish form (D) or form (AF) as the case may be for concessional rate of Sales Tax

9. रकम का भुगतान ३० दिनों के अंदर किया जाएगा।

Payment will be made within 30 days.

10. पूर्ती के आदेश जारी किये जाने के बाद आदेश में दर्शायी गयी-अवधि तक पूरी सुपूर्दगी की जानी चाहिए। रद्द सामग्री को बदलने में असफल होने पर आदेश बिना पूर्व सूचना से रद्द किया जा सकता है, और आगे जोखिम और लागत पर अन्य स्थान से सामग्री प्राप्त की जायेगी।

An order for supply when placed, must be completed in full within the delivery period indicated on the order. Failure to supply or replace the rejected materials if any, will render the order liable to be cancelled without notice and the material will be procured elsewhere at your risks and cost.

11. ऊपर बताए अनुदेशों को पूर्ति न करनेवाली दर सूचियों पर विचार नहीं किया जाएगा।

Quotations, not fulfilling the above instructions, are not likely to be considered.

12. किसी निविदा दर सूची या उसके अंश को कारण नहीं बताते हुए स्वीकृत अथवा अस्वीकृत करने का संस्थान अधिकार रखता है।

The Institute reserves the right to accept or reject any quotation or part thereof without assigning any reason there of.

13. प्रतिभूति पूर्तिकर्ता यह प्रतिभूति १२ महिनो की अवधि के लिए देगा कि पूर्ति के किये जानेवाले माल, कारीगरी, माल और विनिर्माण की सब त्रुटियाँ और दोषों से मुक्त हो, उच्च कोटि के हो और संस्थापित और सामान्य रूप से स्वीकृत मानको के साथ मिलते हो, विशेष विवरण की पुष्टी करते हो और यदि प्रचलित होते हो तो सटीक ढंग से प्रचलित होना चाहिए।

Warranty : The supplier shall give a warranty for a period of 12 months to the effect that the materials supplied shall free from all defects and faults in material, workmanship and manufacture shall be of the highest grade and consistant with the established and generally accepted standards shall be inconfirmatory with the specifications and shall be if operable operate properly.

नियम और शर्तें (जारी)  
Terms and Conditions (contd.)

14. दर पत्र में निम्नांकित बातों के संदर्भ में स्पष्ट जानकारी दी जानी आवश्यक है जैसे कि यूनिट कीमत, विक्री कर, परिवहन, संक्रमणकालीन बीमा, स्थापित करने का खर्च और एक वर्ष की उसी जगह की वॉरंटी । विक्री कर में कोई माफी या छूट मिलने के बारे में संस्थान कोई प्रमाणपत्र जारी नहीं करेगा । अपूरी जानकारी देनेवाले दरपत्रोंके बारे में कोई विचार नहीं किया जाएगा तथा रद्द किया जायेगा ।  
Quotations must clearly indicate the features offered Unit Price[ Sales Tax, Transport, Transit Insurance, Installation charges and one year on-site warranty. Institute cannot furnish any certificate for exemption or reduction in Sales Tax etc. Incomplete Quotation will not be considered and rejected.
15. अग्रिम का भुगतान नहीं किया जाएगा ।  
No advance can be paid.
16. केन्द्रीय उत्पाद शुल्क कर के वेतन से संस्थान को छूट प्राप्त हुई और और अगर आवश्यक हो तो, अनुरोध पर विमोचन प्रमाणपत्र जारी किया जायेगा ।  
Institute is exempted from the payment of Central Excise duty and exemption certificate will be issued on requested, if required.
17. अगर कोई ऑक्ट्रॉय कर का भुगतान हो तो, उसका कृपया अलग उल्लेख किया जाए ।  
Octroi payment if any, the same may please be shown separately.
18. भुगतान नियम निम्न प्रकार से है :-  
Payment terms will be as follows :
- i) सन्तोषजनक प्रतिष्ठापना के बाद **90%** भुगतान ।  
**90%** Payment after satisfactory installation.
- ii) राष्ट्रीयकृत बैंक द्वारा बैंक गारंटी का प्रत्यक्ष क्रियान्वयन होने के पश्चात् **10%** का भुगतान होगा, यह वॉरंटी अवधि के समापन तक लागू रहेगी, जिसकी अवधि बढ़ाई जा सकती है ।  
**10%** Payment after execution of Bank Guarantee from a Nationalised Bank which will be valid till the expiry of warranty period including extension if any.
19. उपकरण स्थापित करने के पश्चात् स्वीकृति की सभी मानके जाँच पड़ताल की जाएगी । स्वीकृति के ऐसे परीक्षण पूरे हो जाने के बाद ही संबंधित उपकरण का स्वीकार किया जायेगा ।  
All standard acceptance tests will be carried out after installation the equipment will be taken over only after successful completion of acceptance tests.
20. उसकी कीमत स्थिर और अपरिवर्तनीय होनी चाहिए और उसमें कच्चा माल और घटकों की लागत में वृद्धि होने पर या रूपया-विदेशी मुद्रा के विनिमय दर में बदलाव आने पर भी कोई परिवर्तन नहीं होगा ।  
The price should be firm and irrevocable and not subject to any change whatsoever, even due to increase in the cost of raw materials and components and Rupee-foreign exchange conversion rate.
21. उपकरण प्राप्त होने के पश्चात् एक महिने की अवधि में स्थापना प्रक्रिया पूरी होनी चाहिए ।  
The installation process should be completed within one month from the date of delivery.



(V. R. Mali)  
Senior Technical Officer-II  
For Director

INDIAN INSTITUTE OF TROPICAL METEOROLOGY  
PASHAN, PUNE – 411 008 (INDIA)

(Enclosure to Enquiry Letter No. PS/125/112/2011/

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**Range:** 0-45m/s

**Accuracy** <1.0% RMS (0-30m/s) for wind incidence up to  $\pm 30^\circ$  from the horizontal

**Resolution:** 0.01m/s

**Wind Direction Specifications**

**Range:** 0-359° or 1-360°

**Accuracy:** 0.5 - 2° (0-30m/s)

**Resolution:** 0.1°

**Sonic Temperature Range:** -40°C to +60°C

**Resolution:** 0.01°C

**Speed of Sound Range:** 300 - 370m/s

**Resolution:** 0.01 m/s

**Accuracy** <  $\pm 0.5\%$  (0-30°C)

**Measurement**

**Internal Sample Rate:** 20Hz (32Hz optional)

**Output Rates:** 1, 2, 4, 8, 10, 16, 20 Hz (32Hz option)

**Units of Measure:** cm/s, m/s, mph, km/h, knots, ft/min

**Output Formats:** UVW, Polar, NMEA

**Averaging:** Flexible 0-3600 s

**Digital Output**

**Communication:** RS232, 422, 485

**Baud Rates:** 1200 - 115200

**Format:** User programmable ASCII out configuration

**Data Acquisitions System:** Computer (Laptop) for display, control, with licensed system & application software (Upgradable on free of cost) with network connection to a site communications computer for automatic data transfer. This connection should allow remote access to the computer for upgrading or troubleshooting.

**Power Requirement**

**Anemometer:** 9-30V DC (25mA-110mA)

**Environmental**

**Humidity** <5% to 100% RH

**Operating Temperature:** -40°C to +60°C

**Precipitation:** 0.5-300mm/hr

**Analogue Outputs (Optional)**

**Resolution:** (12 or 14 bits) 4 channels available

**Selectable Range:** User selectable full-scale wind speed

**Output Type:** 0-20mA, 4-20mA, 0-5V,  $\pm 2.5V$ ,  $\pm 5V$

**Analogue Inputs (Optional)**

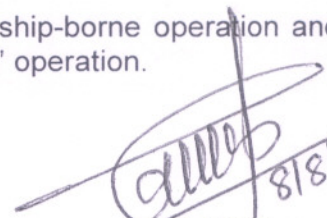
**Resolution:** (12 or 14 bits) Up to 4 single ended or 2 differential

**Input Type:**  $\pm 0$  to  $\pm 10V$

**Warranty:** Maximum permissible years warranty with extended warranty

**Mechanical:** Light Weight, Portable

**Essential Accessories / Spares:** Suitable mounts for ground and ship-borne operation and toolkit for field operations/ maintenance and essential spares for next few years' operation.

  
A.R. Mali

Senior Technical Officer-II  
For Director