INDIAN INSTITUTE OF TROPICAL METEOROLOGY, PASHAN, PUNE-411008
(An Autonomous Body under the Ministry of Earth Sciences, Govt. of India)

GLOBAL TENDER NOTICE

Director, Indian Institute of Tropical Meteorology, Dr.Homi Bhabha Road, Pashan, Pune-411 008 (India) invites sealed tenders (Part-I – Technical Bid, Part-II – Commercial Bid) in separate sealed covers from Manufacturers / Suppliers and their accredited selling agents for the Supply, Commissioning and Installation and Satisfactory Demonstration of the following items:

i) **"Data Logger-I (with Data Storage Module and Multiplexer)" – Qty 05 Sets.**
"Data Logger-II (with Data Storage Module, Multiplexer and Relay Driver)" – Qty 05 Sets.
"Data Logger-III (with Data Storage Module)" – Qty 05 Sets.
(Tender No.PS/TENDER/04/2012)
ii) **"CHNS Analyzer (with Microbalance and Computer)" – Qty 02 Sets.**
(Tender No.PS/TENDER/05/2012)
iii) **"INTEGRATED pCO2 , pH, DO SENSOR for MOORED BUOY" – Qty 03 Sets.**
(Tender No.PS/TENDER/06/2012)

Last date of receipt of Tender at IITM, Pune : **17 October 2012 at 12:00 hrs.**
Opening of Tenders (Technical Bids only) : **17 October 2012 at 15:00 hrs.**

Tender documents with specifications can be obtained from Purchase and Stores Section of the Institute.

The Institute reserves the right to reject any or all tenders without assigning any reason thereof. For further details please visit our Website: **www.tropmet.res.in** and CPP Portal: **www.eprocure.gov.in**

Senior Technical Officer-II, for Director
Email: **vipin@tropmet.res.in**

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

ENQUIRY NO: PS/125/11/2012/ TENDER NOTICE No.: PS/TENDER/04/2012

Datalogger-I (with large number of input channels): Quantity: 5

General:

1. The datalogger, meant for meteorological applications and continuous outdoor use, should be capable of measurement and control, and data collection from a host of weather sensors (fast and slow), with different types of outputs. The sampling interval and averaging period should be selectable/ programmable in the range 0.05 sec to 60 minute and stored data should have the time stamps. High-frequency sampling should be possible at a rate of 20 Hz or higher.

2. The datalogger should have at least 4 MB internal RAM for program and data storage and it should be ensured that data, programs, and time remain intact while the datalogger is switched off or disconnected from external power source.

3. The datalogger should be suitable for analog, digital, rs232/RS485/RS 422, SDI-12, pulse/ frequency, current, resistance bridge and thermocouple temperature measurements. Digital sensor interface should allow baud rate selectable from 300 to 120 kbps. Should be able to connect multiple SDI 12 sensors (with different addresses) to the same input channel on the datalogger.

4. Datalogger should allow analog inputs in the range -5 V to + 5 V, and should be programmable/ selectable for different ranges within above limits. Analog to digital conversion should be of at least 16-bit resolution. Resolution should be of the order of few tens of microvolts and accuracy should be within 0. 1 % of the reading.

5. Should have either built in storage module or externally connected storage module to the datalogger through appropriate ports. The storage module should have the capability to store large amount of data, of the order of few Giga bytes.

6. Should be capable of providing current and voltage excitation, and switched and continuous voltage outputs to sensors as necessary. Excitation voltage range – 5 V to +5 V, excitation current -2.5mA to +2.5mA, and should be selectable/ programmable for different ranges in the above limits.

7. Should have built-in temperature reference junction for accurate thermocouple temperature measurements.

8. Datalogger should have provision to provide 5 V & 12 V continuous power for sensors as required.

9. The frequency counter in the datalogger should allow frequencies up to 250 KHz, with the voltage range – 20 V to + 20 V.

10. Datalogger should have terminals/ input channels to directly connect bare wires from sensors without the need for any additional connectors.

11. The datalogger should have provisions for connections to PC using RS232/ RS485/ RS 422, USB, Ethernet. The datalogger should be compatible for commonly used wireless data transmissions through the use of external modems and antennas. Cost of such devices be quoted separately.

12. The datalogger should be compact and suitable for continuous outdoor deployment in hot/ cold/ dry/ wet conditions. Should allow operation in the temperature range of -20° to +50°C (Tested for operating temperature in the range -20 C to 50 C) and in non-condensing relative humidity conditions.

13. Datalogger should have low power consumption with the capability to run on 12 VDC (external) as well as on 230 VAC. Necessary power adapters should be supplied.

14. The datalogger package should be complete with measurement and control electronics, communication ports, sensor wiring terminals, necessary software, communication/ interface cables, user manuals and accessory kits. The software, preferably windows based, should be provided to allow communication between the datalogger and computer, program the datalogger to perform desired measurement, sample and average data at specific intervals, view & retrieve data. The software should support data retrieval via direct connection, phone modems, Ethernet and radios. If the software has to be purchased, cost of the same should be mentioned separately in the quotation.

15. Suitable weatherproof enclosure with accessories for mounting the enclosure on a tower also should be supplied.

16. Provisions to add peripherals such as multiplexers, relay drivers, serial and pulse input expansion modules, control output expansion module etc. will be an advantage in order to expand the datalogger's measurement and control capabilities in future.

Specific requirements:

i. Analog Inputs: Should have at least 28 single-ended/ 14 differential channels in-built in the datalogger. Additionally, the datalogger should have 32 additional single ended/ 16 differential channels either built-in or on a multiplexer which can be wired to the datalogger.

ii. Pulse counter: Should have at least four pulse input channels

iii. Switched Excitation Outputs: should have at least four switched voltage (± 5 V) and two switched current (± 2.5 mA) outputs to provide precision excitation for sensor measurements.

iv. Should have at least three ports/channels for SDI-12 connections and additional five digital I/O channels with multiple functions such as digital control output, pulse counting, serial sensor measurements, etc.

v. There should be at least 10 single-ended/ 5 differential channels in the datalogger that are suitable for Type E, Type K and Type T thermocouple temperature measurements.

vi. There should be at least one RS-232/RS-485/ RS-422 port for connecting computer, serial sensor, or RS-232 modem.

vii. Should have continuous 5 V and 12 V output terminals and at least one 12 V switched output to power sensors and peripherals.

viii. Data storage module should have a capacity of 2 GB or more.

Items to be supplied with above specifications

Datalogger (complete with the above specifications and accessories): Quantity 5

If software needs to be purchased separately, number of software copies to purchase will be decided at the time of placing order.

Integration of various sensors with the datalogger:

Integration of various weather sensors with different types of outputs (as mentioned in the specifications) will be the responsibility of the vendor. A sample list of sensors, number of each sensor to go on the datalogger, corresponding output types and sampling rate requirements are given in the table below. It should be noted that more number/ type of sensors with output types as mentioned in Item 3 of general specifications (but confined to the type and number of channels mentioned in specific requirements) may have to be integrated at the time of installation.

S. No.	Sensor	Quantity	Output type	Sampling rate/ interval requirement
1	Three-dimensional Sonic Anemometer-Thermometer	2	Digital (RS232), 4 channel analog (with user selectable voltage ± 5 V/ current ranges (0-20mA),	20 Hz or more
2	CO2-H2O Infrared gas analyzer	2	Digital (RS232) & Analog (user selectable volatage ranges (0 – 5V)	20 Hz or more
3	Fine-wire thermocouple temperature sensor (Type E, Type K or Type T)	2	Typical outputs: 50 µV /^{o}C. Datalogger should have appropriate in-built reference junctions	20 Hz or more
4	Multi-component compact weather station	4	SDI -12 & RS232/485/422	10 sec*
5	Net Radiometer (four components separate, with temperature correction)	1	4 analog channels for radiation comp. 1 voltage excitation & 1 analog channel for thermistor. 1 current excitation & 1 analog channel for pt-100 temperature.	2 sec*
6	Photosynthetic Active Radiation (PAR) sensor	1	Analog, in millivolt ranges	2 sec*
7	Line-PAR sensor	1	Analog, in millivolt ranges	2 sec*
8	Rain Guage (tipping bucket type)	1	Pulse count	2 sec*

9	Soil Heat Flux plate (self calibrating type using film heating)	2	One differential voltage channel (-10 to 20 mV) , one current (or voltage across a resistor: 0 to 2 V) and supply of switched 12 V	10 sec*
10	Integrated sensor for water content, electrical conductivity and soil temperature	3	SDI-12 & RS232	10 sec*
11	Soil Temperature sensor	5	Thermistor; Switched voltage excitation required, Analog	2 sec*
12	Infrared Thermometer (continuous recording)	1	2.5 V Voltage excitation; Analog: differential & single ended	2 sec*

* Averaging should be user selectable in the range 1 min – 60 min.

Datalogger-II (with relay driver): Quantity: 5

General:

1. The datalogger, meant for meteorological applications and continuous outdoor use, should be capable of measurement and control, and data collection from a host of weather sensors (fast and slow), with different types of outputs. The sampling interval and averaging period should be selectable/ programmable in the range 0.05 sec to 60 minute and stored data should have the time stamps. High-frequency sampling should be possible at a rate of 20 Hz or higher.

2. The datalogger should have a relay driver, either in-built or as a separate unit integrated to the datalogger.

3. The datalogger should have at least 4 MB internal RAM for program and data storage and it should be ensured that data, programs, and time remain intact while the datalogger is switched off or disconnected from external power source.

4. The datalogger should be suitable for analog, digital, rs232/RS485/RS 422, SDI-12, pulse/ frequency, current, resistance bridge and thermocouple temperature measurements. Digital sensor interface should allow baud rate selectable from 300 to 120 kbps. Should be able to connect multiple SDI 12 sensors (with different addresses) to the same input channel on the datalogger.

5. Datalogger should allow analog inputs in the range -5 V to + 5 V, and should be programmable/ selectable for different ranges within above limits. Analog to digital conversion should be of at least 16-bit resolution. Resolution should be of the order of few tens of microvolts and accuracy should be within 0. 1 % of the reading.

6. Should have either built in storage module or externally connected storage module to the datalogger through appropriate ports. The storage module should have the capability to store large amount of data, of the order of few Giga bytes.

7. Should be capable of providing current and voltage excitation, and switched and continuous voltage outputs to sensors as necessary. Excitation voltage range – 5 V to +5 V, excitation current -2.5mA to +2.5mA, and should be selectable/ programmable for different ranges in the above limits.

8. Should have built-in temperature reference junction for accurate thermocouple temperature measurements.

9. Datalogger should have provision to provide 5 V & 12 V continuous power for sensors as required.

10. The frequency counter in the datalogger should allow frequencies up to 250 KHz, with the voltage range – 20 V to + 20 V

11. Datalogger should have terminals/ input channels to directly connect bare wires from sensors without the need for any additional connectors.
12. The datalogger should have provisions for connections to PC using RS232/ RS485/ RS 422, USB, Ethernet. The datalogger should be compatible for commonly used wireless data transmissions through the use of external modems and antennas. Cost of such devices be quoted separately.

13. The datalogger should be compact and suitable for continuous outdoor deployment in hot/ cold/ dry/ wet conditions. Should allow operation in the temperature range of -20° to +50°C (Tested for operating temperature in the range -20 C to 50 C) and in non-condensing relative humidity conditions.
14. Datalogger should have low power consumption with the capability to run on 12 VDC (external) as well as on 230 VAC. Necessary power adapters should be supplied.
15. The datalogger package should be complete with measurement and control electronics, communication ports, sensor wiring terminals, necessary software, communication/ interface cables, user manuals and accessory kits. The software, preferably windows based, should be provided to allow communication between the datalogger and computer, program the datalogger to perform desired measurement, sample and average data at specific intervals, view & retrieve data. The software should support data retrieval via direct connection, phone modems, Ethernet and radios. If the software has to be purchased, cost of the same should be mentioned separately in the quotation.
16. Suitable weatherproof enclosure with accessories for mounting the enclosure on a tower also should be supplied.
17. Provisions to add peripherals such as multiplexers, relay drivers, serial and pulse input expansion modules, control output expansion module etc. will be an advantage in order to expand the datalogger's measurement and control capabilities in future.

Specific requirements are as follows:

i) Datalogger

i. Analog Inputs: Should have at least 16 single-ended/ 8 differential channels.

ii. Pulse counter: Should have at least two pulse input channels

iii. Switched Excitation Outputs: should have at least three switched voltage (± 2.5 V) outputs to provide precision excitation for sensor measurements.

iv. Should have at least three ports/channels for SDI-12 connections and additional three digital I/O channels with multiple functions such as digital control output, pulse counting, serial sensor measurements, etc.

v. There should be at least 8 single-ended/ 4 differential channels in the datalogger that are suitable for Type E, Type K and Type T thermocouple temperature measurements.

vi. There should be at least one RS-232 port for connecting computer, serial sensor, or RS-232 modem.

vii. Should have continuous 5 V and 12 V output terminals and at least one 12 V switched output to power sensors and peripherals.

viii. Data storage module should have a capacity of 2 GB or more.

ii) Relay driver

The relay driver, either in-built or a separate unit integrated to the datalogger, should have capability to control up to 12 external AC or DC devices. Each relay-set should be able to control through the datalogger.

The relay driver should operate on 12 VDC, with current drain of the order of few mA.

Operating temperature: -20 to 50 C.

Items to be supplied with above specifications

Datalogger (complete with the above specifications and accessories): **Quantity 5**

If software needs to be purchased separately, number of software copies to purchase will be decided at the time of placing order.

Integration of various sensors with the datalogger:
Integration of various weather sensors with different types of outputs (as mentioned in the specifications) will be the responsibility of the vendor. A sample list of sensors, number of each sensor to go on the datalogger, corresponding output types and sampling rate requirements are given in the table below. It should be noted that more number/ type of sensors with output types as mentioned in Item 3 of general specifications (but confined to the type and number of channels mentioned in specific requirements) may have to be integrated at the time of installation.

S. No.	Sensor	Quantity	Output type	Sampling rate requirement
1	Solenoid valve (Direct current)	6		
2	Three-dimensional Sonic Anemometer-Thermometer	1	Digital (RS232), 4 channel analog (with user selectable voltage ± 5 V/ current ranges (0-20mA),	20 Hz or more
3	CO2-H2O Infrared gas analyzer	1	Digital (RS232) & Analog (user selectable volatage ranges (0 – 5V)	20 Hz or more
4	Fine-wire thermocouple temperature sensor	1	Typical outputs: 50 µV /°C. Datalogger should have appropriate in-built reference junctions	20 Hz or more
5	Multi-component compact weather station	2	SDI -12 & RS232/485/422	10 sec*
6	Net Radiometer (four components separate, with temperature correction)	1	4 analog channels for radiation comp. 1 voltage excitation & 1 analog channel for thermistor. 1 current	2 sec*

			excitation & 1 analog channel for pt-100 temperature.	
7	Photosynthetic Active Radiation (PAR) sensor	1	Analog, in millivolt ranges	2 sec*
8	Rain Guage (tipping bucket type)	1	Pulse count	2 sec*

Datalogger-III Quantity: 5

General:

1. The datalogger, meant for meteorological applications and continuous outdoor use, should be capable of measurement and control, and data collection from a host of weather sensors (fast and slow), with different types of outputs. The sampling interval and averaging period should be selectable/ programmable in the range 0.05 sec to 60 minute and stored data should have the time stamps. High-frequency sampling should be possible at a rate of 20 Hz or higher.

2. The datalogger should have at least 4 MB internal RAM for program and data storage and it should be ensured that data, programs, and time remain intact while the datalogger is switched off or disconnected from external power source.

3. The datalogger should be suitable for analog, digital, rs232/RS485/RS422, SDI-12, pulse/ frequency, current, resistance bridge and thermocouple temperature measurements. Digital sensor interface should allow baud rate selectable from 300 to 120 kbps. Should be able to connect multiple SDI 12 sensors (with different addresses) to the same input channel on the datalogger.

4. Datalogger should allow analog inputs in the range -5 V to + 5 V, and should be programmable/ selectable for different ranges within above limits. Analog to digital conversion should be of at least 16-bit resolution. Resolution should be of the order of few tens of microvolts and accuracy should be within 0. 1 % of the reading.

5. Should have either built in storage module or externally connected storage module to the datalogger through appropriate ports. The storage module should have the capability to store large amount of data, of the order of few Giga bytes.

6. Should be capable of providing current and voltage excitation, and switched and continuous voltage outputs to sensors as necessary. Excitation voltage range – 5 V to +5 V, excitation current -2.5mA to +2.5mA, and should be selectable/ programmable for different ranges in the above limits.

7. Should have built-in temperature reference junction for accurate thermocouple temperature measurements.

8. Datalogger should have provision to provide 5 V & 12 V continuous power for sensors as required.

9. The frequency counter in the datalogger should allow frequencies up to 250 KHz, with the voltage range – 20 V to + 20 V

10. Datalogger should have terminals/ input channels to directly connect bare wires from sensors without the need for any additional connectors.
11. The datalogger should have provisions for connections to PC using RS232/ RS485/ RS 422, USB, Ethernet. The datalogger should be compatible for commonly used wireless data transmissions through the use of external modems and antennas. Cost of such devices be quoted separately.
12. The datalogger should be compact and suitable for continuous outdoor deployment in hot/ cold/ dry/ wet conditions. Should allow operation in the temperature range of -20° to +50°C (Tested for operating temperature in the range -20 C to 50 C) and in non-condensing relative humidity conditions.

13. Datalogger should have low power consumption with the capability to run on 12 VDC (external) as well as on 230 VAC. Necessary power adapters should be supplied.
14. The datalogger package should be complete with measurement and control electronics, communication ports, sensor wiring terminals, necessary software, communication/ interface cables, user manuals and accessory kits. The software, preferably windows based, should be provided to allow communication between the datalogger and computer, program the datalogger to perform desired measurement, sample and average data at specific intervals, view & retrieve data. The software should support data retrieval via direct connection, phone modems, Ethernet and radios. If the software has to be purchased, cost of the same should be mentioned separately in the quotation.
15. Suitable weatherproof enclosure with accessories for mounting the enclosure on a tower also should be supplied.
16. Provisions to add peripherals such as multiplexers, relay drivers, serial and pulse input expansion modules, control output expansion module etc. will be an advantage in order to expand the datalogger's measurement and control capabilities in future.

Specific requirements are as follows:

i. Analog Inputs: Should have at least 16 single-ended/ 8 differential channels.

ii. Pulse counter: Should have at least two pulse input channels

iii. Switched Excitation Outputs: should have at least three switched voltage (± 2.5 V) outputs to provide precision excitation for sensor measurements.

iv. Should have at least three ports/channels for SDI-12 connections and additional three digital I/O channels with multiple functions such as digital control output, pulse counting, serial sensor measurements, etc.

v. There should be at least 8 single-ended/ 4 differential channels in the datalogger that are suitable for Type E, Type K and Type T thermocouple temperature measurements.

vi. There should be at least one RS-232 port for connecting computer, serial sensor, or RS-232 modem.

vii. Should have continuous 5 V and 12 V output terminals and at least one 12 V switched output to power sensors and peripherals.

viii. Data storage module should have a capacity of 2 GB or more.

Items to be supplied with above specifications

Datalogger (complete with the above specifications and accessories): **Quantity 5**

If software needs to be purchased separately, number of software copies to purchase will be decided at the time of placing order.

Integration of various sensors with the datalogger:

Integration of various weather sensors with different types of outputs (as mentioned in the specifications) will be the responsibility of the vendor. A sample list of sensors, number of each sensor to go on the datalogger, corresponding output types and sampling rate requirements are given in the table below. It should be noted that more number/ type of sensors with output types as mentioned in Item 3 of general specifications (but confined to the type and number of channels mentioned in specific requirements) may have to be integrated at the time of installation.

S. No.	Sensor	Quantity	Output type	Sampling rate requirement
1	Three-dimensional Sonic Anemometer-Thermometer	1	Digital (RS232), 4 channel analog (with user selectable voltage ± 5 V/ current ranges (0-20mA),	20 Hz or more
2	CO2-H2O Infrared gas analyzer	1	Digital (RS232) & Analog (user selectable volatage ranges (0 – 5V)	20 Hz or more
3	Fine-wire thermocouple temperature sensor	1	Typical outputs: 50 µV /^{o}C. Datalogger should have appropriate in-built reference junctions	20 Hz or more
4	Multi-component compact weather station	1	SDI -12 & RS232/485/422	10 sec*
5	Soil Heat Flux plate	2	One differential voltage channel (-10 to 20 mV) , one current (or voltage across a resistor: 0 to 2 V) and supply of switched 12 V	10 sec*
6	Integrated sensor for water content, electrical conductivity and soil temperature	3	SDI-12 & RS232	10 sec
7	Soil Temperature sensor	5	Thermistor; Switched voltage excitation required, Analog	2 sec

General conditions valid for all three types of datalogger:

Demonstration

Vendors/ manufacturers will have to physically demonstrate that their datalogger meets the given specifications and that different type of sensors can be successfully integrated to their datalogger. The demonstration will have to be done at IITM with the actual product on a date agreeable to IITM and the vendor, but within 30 to 45 days from the last date of receiving quotations. A set of sensors will be provided by IITM.

The vendor should show their proven capability that their dataloggers have been used for micro-meteorological observations by different governmental research organizations, R&D Laboratories etc.

INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE 411 008 (INDIA)

GENERAL TERMS & CONDITIONS

File No.PS/125/11/2012 **TENDER No.: PS/TENDER/04/2012**

1) The Tenderers are requested to give detailed sealed tender in their own forms in two Bids i.e.
   Part-I Technical Bid.
   Part-II Commercial Bid

   Both the bids addressed to
   The Director,
   Indian Institute of Tropical Meteorology,
   Dr. Homi Bhabha Road, NCL Post,
   Pashan, Pune – 411 008, INDIA.

2) You have to submit two separate bids in two separate envelopes and you may keep both the bid envelopes in an envelope for sending to us.

   One envelope will contain only the **TECHNICAL SPECIFICATIONS** of the indented equipment.

   Another envelope will contain only the financial bid in which price, maintenance, AMC, CMC, OMC etc. and any other information, which has financial implications, will only be given.

3) Please indicate page nos. on your quotation ex. If the quotation is containing 25 Pages, please indicate as 1/25, 2/25, 3/25 ----------25/25.

4) The main envelope, which will contain both the bids, should be super scribed with our tender enquiry No.**PS/PS/125/11/2012/** due on **17 October 2012.**

5) The technical bids will be opened on the specified due date in the presence of tenderers who wish to be present & the financial bids of only those bidders will be opened whose technical bid is found suitable by us.

6) The Date and Time of opening for Part-II (Commercial Bid) will be intimated only to pre-qualified and technically acceptable Tenderers for the item at a later date.

   Last Date and Time for receipt of Tenders: **Upto 12.00 hrs. on 17 October 2012.**
   Date and Time of opening of Tenders: **At 15:00 hrs. on 17 October 2012.**
   (Part-I Technical Bids only)

   Tenders addressed to the Director, Indian Institute of Tropical Meteorology, Pune 411008 are to be submitted for each item in duplicate in double cover, under two bids system. Superscribed with Tender No. **PS/PS/125/11/2012/** for purchase of **"Data Logger-I, II & III" – Qty - 05 Sets each** due on **17 October 2012.**

7) This tender is **not transferable**.

8) **Fax / E-mail / Telegraphic / Telex tenders will not be considered**

9) If a request is made to IITM, Pune for Tender Documents, a sum of **Rs.1,000.00 (Rs. One Thousand only)** for indigenous suppliers / Indian agents (Non-refundable) and **USD 50.00 (USD Fifty only)** for foreign suppliers (Non- refundable) has to be paid in the form of Demand Draft only drawn in favour of **The Director, Indian Institute of Tropical Meteorology, Pune** enclosed in Technical Bid only.

10) a) The Equipments are required for **IITM, Pune** and to be installed in and around **PUNE (INDIA) at different locations** and subsequently Training is to be provided to the concerned scientists / personnels of IITM, Pune.
b) Packing, Forwarding, Freight & Insurance and Commissioning Charges, if any extra may be quoted separately in Commercial Bid.
c) In case if your quote is FOR/FOB basis, estimated Insurance coverage charges may please be indicated.
d) CIF, Mumbai value both by Airfreight.
e) Octroi Payment if any, the same may please be shown separately.

11) Cost of the items should be mentioned clearly in the Commercial Bid (Part-II) only. The optional and any other essential items / accessories required for the maintenance of the equipment for the next five years should also be specified in the offer separately.

12) In case of foreign quote, the Principal supplier should clearly indicate the address of the Indian Agent and percentage (%) of Agency Commission payable if any, to be paid to the Indian Agent in Indian Currency. If Agency Commission is not applicable, the same may kindly be mentioned clearly in the offer.

13) Percentage & amount of Indian Agency commission payable in Indian currency after the receipt of consignment in good condition at our Stores & satisfactory installation and commissioning of the ordered equipment on submission of copy of DGS&D registration wherever it is applicable.

14) 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 user Organization.

15) a) If you have supplied identical or similar equipment to other Institutes under Ministry of Earth Sciences and Ministry of Science & Technology, the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid.
b) Based on the above information IITM will have its option to obtain details of the equipment, their performance, after sales services etc. for evaluation of the tender, directly from the concerned Labs. /Scientists etc.

16) **All the Bank Charges inside and outside India, including opening of LC, communication, confirmation, amendments etc., if any to Beneficiary's Account only. This may please be noted.**

17) Details of services rendered by you as well as after-sales services offered by you are to be made clear in the tender.

18) The Tenderer's conditions printed on the tender or otherwise sent along with the tender shall not be binding on IITM.

19) The vendor should have appropriate facilities and trained personnel for supply, installation, commissioning and warranty-maintenance of the equipment to be supplied. Detailed information in this regard may be furnished.

20) **Delivery Period:** As time is the essence of the contract, Delivery period mentioned in the Purchase Order should be strictly adhered to.

21) Details regarding terms of payment including period of warranty. However we prefer to release the payment on BILL Basis (excluding Indian Agency Commission) after receipt of consignment in good condition and satisfactory installation, and commissioning thereof. 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. However, the detailed payment for Sight Draft / Letter of Credit is mentioned at clause No. **30 (b), (c) & (d)** of this tender terms and conditions.

22) Supply means "Supply, Installation, Commissioning and satisfactory demonstration of the whole system and training". If any charges extra for Installation, Commissioning and training, the same should be specified in the commercial offer.

23) Kindly attach a copy of your latest DGS&D, New Delhi registration Certificate under the compulsory Scheme of Ministry of Finance regarding the registration of Indian Agent of foreign supplier wherever it is applicable.

24) a) The Tenderer is required to furnish the Permanent Account Number (PAN) Allotted by the Income Tax Department. If registered with the National Small Industries Corporation, the registration number, purpose of registration and the validity period of registration' etc. should also be provided in Technical Bid for Indian Agents.

b) A copy of latest Income Tax Clearance Certificate from Income Tax Department (INDIA) for Indian Agents.

25) In case of foreign quote, the address of Principal's / Manufacturer's and their Banker's details should be furnished.

26) The item should be supplied with manuals and the manuals including technical / Electronic drawings / circuit diagrams should be complete in all respects to operate the system without any problem.

27) The import license is covered under OGL policy of 2009-2014.

28) a) In case of Indigenous Items the offer should contain the Basic Price and percentage of Excise Duty should be shown separately, since IITM, Pune is exempted from payment of Excise duty vide Govt. Notification No.10/97-Central Excise dated 15t March, 1997.

b) IITM is exempted from payment of Customs Duty vide Govt. Notification No.51/96-Customs dated 23rd July, 1996. However as per the Govt. of India further notification No.24/2002-Customs dated 15t March, 2002 and notification No.19/2006-Customs' dt. 01.03.2006 Customs Duty is levied on all imports meant for IITM. Since the suppliers are requested to quote only on FOB basis, applicable freight, insurance and customs duty to R&D Institutions will be borne by IITM.

29) Tender must clearly indicate the features offered unit price, VAT tax, transport, transit insurance, installation charges. Institute cannot furnish any concessional certificate for exemption or reduction in VAT tax or any other duty / tax except mentioned above at 28 a) and b). The vendor should mention the price of the equipment and the duties / taxes to be paid such as customs duty / excise duty / VAT taxes etc. separately.

30) a) No advance can be paid.

b) **PAYMENT: 80%** payment shall be made by Sight Draft / an Irrevocable Letter of Credit established in favour of the supplier through the State Bank of India, Main Branch, Camp, Pune 411 001 (India) for the order value, excluding the Agency Commission due to the Indian Agents, against the presentation of original Shipping documents, **10%** payment shall be released after completion of satisfactory installation, commissioning, demonstration of the whole system, after imparting training and Balance **10%** will be released upon receipt of Bank Guarantee from Indian nationalized bank for 10% of total Order value towards performance bank guarantee to be valid for one year from the date of installation. However Letter of Credit/Sight Draft arrangement will be made for 100% order value.

The Agency Commission to the Indian Agent will be paid only after successful installation, commissioning and satisfactory demonstration and acceptance of the items ordered for by the end user.

c) For Indigenous items, **80%** payment shall be made against delivery of indigenous goods, **10%** payment shall be released after completion of installation, commissioning and on acceptance test as per Purchase Order at site and

balance **10%** shall be made after receipt of performance Bank Guarantee from Indian nationalized bank for 10% of the total order value, to be valid for entire period of warranty including extension if any. If no Bank Guarantee is given, the balance 10% will be paid after assessing, after sales service during warranty period i.e. payment after warranty period.

d) To ensure due performance of the contract, the successful bidder has to furnish the Performance Security in the form of bank guarantee for **10%** of the Order value from the Indian nationalized bank before execution of ordered work but not later than 15 days from the date of receipt of the Purchase Order. The same will be returned to the successful bidder only after completion of satisfactory installation, commissioning, demonstration of the whole system.

31) The prices quoted should be firm and irrevocable and not subject to any change whatsoever, even due to increase in cost of raw material components and fluctuation in the foreign exchange rates and excise duty.

32) The Tenderer has to state in detail the Electrical Power/UPS requirements, floor Space, head room, foundation needed and also to state whether Air-conditioned environment is needed to house the system and to run the tests. i.e. pre-installation facilities required for installation may please be intimated in the technical bid.

33) **INSTALLATION**: Bidder shall be responsible for installation / demonstration wherever applicable and for after sales service during the warranty and thereafter.

34) Acceptance tests to be prescribed later will be carried out after installation and the items will be taken over only after successful completion of the acceptance tests.

35) The tenders must be clearly written or typed without any cancellations / corrections or overwriting.

36) The tenders will be received in the Institute till **17 October 2012**up to **12:00 hrs.** and shall be opened on **17 October 2012** at **15:00 hrs.** in presence of the tenderers or their authorized agents who wish to be present.

37) IITM will not be responsible:
   a) For delayed / late quotations submitted / sent by Post / Courier etc.
   b) For submission / delivery of quotations at wrong places other than the Office of Director, IITM, Pune**,**

38) In case of Foreign Quote, the mode of dispatch should be by Air Post Parcel/Ocean Freight/Air Freight (By Air India Freight) and on Freight to-pay basis only. The approximate dimensions of· the packages and weight of consignment are to be indicated.

39) The makes / brand and name and address of the manufacturer, Country of Origin,

Country of Shipment and currency in which rates are quoted are to be mentioned.

40) The Technical Bid should accompany with complete specification, Manufacturer's name, address and relevant Technical Literature/Brochures with Warranty Terms.

41) The payment of local currency portion shall be payable in equivalent Indian Rupees, within 30 days after the receipt of the equipment in good condition and after satisfactory installation and commissioning and demonstration.

42) The tender / quotation / offer submitted by you should be valid for a minimum period of **One Hundred Eighty (180) days** from the date of opening the tender.

43) The quotation should be only in Indian Rupees for indigenous items. In case of foreign quote, the vendors may quote their rates in, Indian Rupees as well as in Foreign Currency.

44) The bidder who submits the tender on behalf of their principals should produce documentary evidence in support of their authority to quote or submit proforma invoice of their principals.

45) Installation demonstration to be arranged by the supplier free of cost and the same is to be done within 15 days of the arrival of the equipment at site after site readiness.

46) IITM will not provide any accommodation/transportation for the Engineers/ Representatives for attending Installation, Commissioning and Demonstration Work. It is the absolute responsibility of the Principal Supplier/Indian Agent to make their own arrangements.

47) **WARRANTY/GUARANTEE**:

(a) The equipment should be guaranteed for trouble free performance for a minimum period of **ONE YEAR** after installation.

(b) The equipment should be guaranteed for trouble free performance during warranty period after installation. Supplier shall finally warrant that all the stores, equipment and components supplied under the ORDER shall be new and of the first quality according to the specifications and shall be free from the defects (even concealed fault, deficiency in the design material and workmanship). The defects, if any, during the guarantee period are to be rectified free of charge by arranging free replacement wherever necessary. Further, the technical specifications and requirements may also be verified.

(c) Instrument should remain operational at least 90% of the time in a year and should not remain non-functional continuously for more than **Two weeks**. In case of non-compliance a penalty of 2-5% of the order value amount or the Warranty

period will be extended proportionately. The instrument should be commissioned, regularized and operational after the order is executed without any additional facility and cost to IITM excepting the infrastructure which includes well furnished laboratory space with 230V standard Indian power supply. **Warranty period will stand extended for a period of total downtime of the equipment.**

(d) Kindly mention the charges for Annual Maintenance Contract (AMC) / Comprehensive Maintenance Contract (CMC) separately in **commercial bid** (for Post Warranty / Extended Warranty period).

48) Details of onsite warranty, agency that shall maintain during warranty. In case of foreign quote, the Indian Agent who shall maintain during warranty an. After warranty period (post warranty) who will maintain equipment / instrument. Indicate the name of Firm, address, contact person, phone no. And fax no. etc in your technical bid.

49) The supply of spare parts is to be guaranteed at least for a period of 10 years after the supply of the equipment.

50) Please mention that during warranty period who will maintain system/ equipment / instrument. Indicate the name of firm, address, contact person, phone no. and fax no. etc in your technical bid.

51) After successful installation what will be the minimum down time of equipment/instrument in case of breakdown. If the identified firm or person fails to put the system into working condition what is the further alternative course of action suggested by you to adhere to minimum down time.

52) No sub-contracting will be allowed for installation or maintaining system/ equipment / instrument during or after warranty period.

53) You have to quote rates for AMC, if any, only in commercial bid.

54) Any upgrade in Operating System (OS) and associated other software during the warranty period should be supplied free of charge.

55) Discount offered should be mentioned clearly in the commercial bid only.

56) The Tenderers are requested to quote for Educational Institutional Prices for Equipment and Software, since we are eligible for the same.

57) This Institute is an autonomous scientific research organization under the Ministry of Earth Sciences and is a recognized centre for studies leading to M.Sc. and Ph.D. of the University of Pune and various other Universities. As such, all possible concessions / discounts / rebates applicable for educational Institutions may be given.

58)a) The Earnest Money Deposit of **Rs.1,70,000.00 (Rs. One Lakh Seventy Thousand only)** must be paid / sent along with your technical bid in the form of a Demand Draft, Banker cheque or Bank Guarantee (from a Indian Nationalized Bank only) drawn in favour of The Director, Indian Institute of Tropical Meteorology, Pune payable at Pune, otherwise your technical & financial bids will not be considered at all. The Earnest Money of successful bidder will be returned only after installation, commissioning, satisfactory demonstration and on acceptance of the equipment by the user Scientist / HOD as per the terms of our purchase order. If the successful bidder fails to fulfill the contractual obligations before the due date, he will forfeit the EMD.

The Earnest Money of the unsuccessful bidder whose technical bid has not been found suitable will be returned within **FORTY FIVE DAYS** after receipt of Technical Committee recommendations.

b) Those who are registered with Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation or the concerned Ministry / Department need not to furnish EMD along with their bids.

c) Though EMD has to be submitted by Demand Draft, Banker's Cheque or Bank Guarantee, we prefer to have Bank Guarantee for easy return to the bidders once a decision is taken by IITM. (Specimen of Bank Guarantee is enclosed at Annexure 'A').

d) Tenders not accompanied with Demand Draft / Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.

59)a) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.

b) Unsigned Tenders will also be rejected.

c) Part and incomplete tenders are liable to be rejected.

60) If the supplier fails to Supply, Install and Commission the system as per specifications mentioned in the order within the due date, the Supplier is liable to pay liquidated damages of one percent value of the Purchase Order awarded, per every week delay subject to a maximum of 10% for every week beyond the due date and such money will be deducted from any money due or which may become due to the supplier.

61) Goods should not be dispatched until the Vendor receives a firm order.

62) The purpose of certain specific conditions is to get or procure best Equipment / service etc. for IITM. The opinion of Technical Committee shall be guiding factor for Technical short listing.

63) Firms which have already supplied similar equipment to IITM and have not completed required installation / commissioning / after sales service / warranty replacements etc. such firms' offers will not be considered for further evaluation and no enquiries thereafter will be entertained.

64) In the event the Manufacturer / Supplier proposes for amalgamation, acquisition or sale of its business to any firm during the contract period, the Buyer/Successor of the Principal Company are liable for execution of the contract and also fulfillment of contractual obligations i.e. supply, installation, commissioning, warranty, maintenance/replacement of spares accessories etc. with the same cost / ordered value while submitting your bid, you may confirm this condition.

65) Conditional Offers will not be considered.

66) All disputes are subject to exclusive jurisdiction of Competent Court and Forum in Pune, India only.

67) The Director, Indian Institute of Tropical Meteorology, Pune 411 008, India reserves the right to accept any tender in full or in part or to reject the lowest or any or all tenders without assigning any reason.

68) In case of any dispute regarding part-shipment, non-compliance of any feature etc., The Director, Indian Institute of Tropical Meteorology, Pune will be the final authority to decide the appropriate action and it will be binding on the Vendor.

69) Last Date and Time for receipt of Tenders: **Up to 12.00 hrs. on 17 October 2012.**

70) Date and Time of opening of Tenders: **At 15:00 hrs. on 17 October 2012.**
(Part - I Technical Bid only)

(V. R. MALI)
Senior Technical Officer-II
For Director
Email: vipin@tropmet.res.in
Tel: ++91-20-25894483

BID SECURITY FORM

Whereas 1 (hereinafter called “the Bidder") has submitted its bid dated (*date of submission of bid*) for the supply of _____ (*name and/or description of the goods*)(hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE _____ (*name of bank*) of (*name of the country*), having our registered office at (*address of bank*)(hereinafter called "the Bank"), are bound unto (*name of Purchaser*) (hereinafter called "the Purchaser") in the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ___ day of 20___THE CONDITIONS of this obligation are:

1. If the Bidder withdraws it's bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of it's bid by the Purchaser during the period of bid validity:
   a) fails or refuses to execute the Contract Form if required; or
   b) fails or refuses to furnish the performance security, in accordance with the Instruction to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, Without· the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to one year after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(Signature of the Bank)
Name of Bidder