



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)

C-010/Hall

Date: 08.05.2013

M/s

As per list attached

Sub: Supply and Installation of Conference System.

Dear Sirs,

Sealed quotations are invited in two bid format from reputed and experienced vendors for "Supply & installation of Conference System" for Institute's Aryabhata Conference hall with buyback of existing equipment installed in the conference hall.

You are therefore requested to submit filled quotations in two bid format complying all the terms and conditions as mentioned in Annexure -III so as to reach this Institute on or before 27th May 2013 upto 1600 hrs.

Thanking you,

Yours sincerely,

(Shri.S.M.D.Jeelani)

Head, Computer and Data Division
For Director

- Encl : 1. Scope of Work
2. Specifications
3. Terms & Conditions

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)

ANNEXTURE- I**Scope of Work**

The Aryabhata Conference hall located at the 2nd floor of IITM library building is being equipped with Audio visual equipment. The Broad scope of the work comprises of disconnecting existing system for buyback and supply, installation and commissioning of conferencing system comprises of various mikes, ceiling speakers, DSP/Amplifier/Mixer/Feedback Reducer, cables & connectors. All necessary and essential software's for connecting & setting of Conference systems must be supplied free of cost along with the hardware.

Supply, Complete installation of conferencing systems needs to be done by the supplier. After installation and successful commissioning, training to user group is to be arranged by the supplier free of cost. The required features and specifications, BOQ are enclosed.

**Conferencing System for Aryabhata Hall with
1 Chairman Mic, 29 delegate mics and required hardware as below.**

1	Table Microphone (1 Chairman Mic and 29 delegate mics) (As in Specification 1)	30 Nos.
2	DSP/AMP/Automatic Mixer/Feedback Reducer/ Software (As in Specification 2)	1 set
3	Wireless Hand Held Mic Set (As in Specification 3)	2 Nos.
4	Wireless Collar Mic Set (As in Specification 4)	2 Nos.
5	Ceiling Speakers (As in Specification 5)	14 Nos.
6	Cables/Connectors (As in Specification 6)	1 set
7	Operational Programming (As in Specification 7)	1 Job
8	Installation/Commissioning/Training (As in Specification 8)	1 Job

**All the above items are for the same conferencing system.
Hence all should be compatible.**

SPECIFICATIONS**Spec. 1.****Table Microphones- Gooseneck with base and power switch with snap-fit foam windscreen****TECHNICAL SPECIFICATIONS**

Gooseneck length	18"
Frequency Response	50 to 17,000 Hz
Polar Pattern	Cardoid
Open Circuit Sensitivity	At 1 kHz, ref. 1 V per Pascal, 33.5 dBV (21.1 mV)
Maximum SPL (1kHz at 1% THD, 1 k-ohm load)	123.0 dB
Sensitivity	21mV/Pa
Equivalent Output Noise (A-weighted)	29.0 dB SPL
Signal to Noise Ratio (referenced at 94 dB SPL)	65.0 dB
Dynamic Range with 1 k-ohm load	94.0 dB
Common Mode Rejection	45.0 dB minimum
Mute Switch Attenuation	50.0 dB minimum
Preamplifier Output Clipping Level (1% THD)	-6.0 dBV (0.5 V)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pin 2 relative to pin 3 of XLR output connector.
Power Requirements	11 to 52 Vdc phantom, 2.0 mA
Relative Humidity	0-95%

Spec. 2

Digital Sound Processor, Automatic Mixer with Matrix Mixing, Multi Channel Amplifier, and Multi Channel Feedback Reducer for enabling 32 mics (along with necessary operational software for reprogramming, maintaining, editing of application settings)
(Single or multiple devices combined)

TECHNICAL SPECIFICATIONS

I/O Configuration

Mic / Line Inputs	32 Nos
Line Inputs	16 Nos
Line Outputs	40 Nos
Possibility to Expand Multiple Units for connecting more mics	Required
Bi-Directional Full Duplex Digital Expansion Bus	Required
GPIO Ports with Logic IN/OUTS	50 Pins

Auto Mixer Features

Type	First Mic priority based to avoid tunneling sound
Adaptive Ambient	System shall be able to monitor the ambient sound changes and set the Gating Parameters automatically.
Editable Gate Ratio	Required
Editable Off Attenuation Setting	Required
Editable Hold Time Setting	Required
Share Gating Groups between Units	Required

Power Amplifier & Feedback Reducer

Power Amplifier Channels	8 Ch x 35 W Each (8Ohms or 70/100V Selectable)
Feedback Reducer	8 Ch x Dynamic Automatic Feedback Reducer at the output stage to deal feedback required
Eight Channel Ring Eliminator	Required
Graphical Equalizer	Eight Channel and 10 band each
Fixed/Dynamic Nodes	16 Nodes shall be possible to apply on individual Channel and shall be user editable
Automated Setup	Feedback reducer shall support automated setup.

DSP

Create Macros using Recorder as well as Command Lines Presets	Required Shall be possible to create a min of 30 Presets in a single system.
Real-time Changes Required.	Changes such as layout, routing, gain structuring, Present/macro Creation can be made in real time

Management

Event scheduling functionality	Required
Optional Table Top Controller	Required
Event scheduling functionality	Required
System Checks Functionality	Generate report of Microphone/Speaker Connection Status, Amplifier Status, Temperature etc
SNMP Agent	Required
Internal Web Server	Required
SMTP Agent	Required

Spec. 3.

Wireless UHF Hand held Mic Set

A. Wireless Transmitter

TECHNICAL SPECIFICATIONS

Polar pattern	Cardoid
Frequency Response	60 Hz to 15 KHz
Audio Input Level	-20 dBV maximum
Input Impedance	22k Ohms
RF Output	HI power mode: 10 mW maximum
LO power mode:	1 mW maximum
Power Requirements	Rechargeable batteries
Battery Life	Up to 10 hours (alkaline) or more
	254 mm X 51 mm diameter
Construction	Molded ABS
Steel mesh	Ball grille with built-in "pop" filter
Selectable frequencies per band	8
Compatible channels per band	4

B. Wireless Receiver

TECHNICAL SPECIFICATIONS

Audio Output Level	XLR connector into 100k Ohms load: -16 dBV
1/4" Jack connector into 100k Ohms load:	-22 dBV
	(Ref. ± 48 kHz deviation with 1 kHz tone)
Output Impedance	XLR connector: 600 Ohms
	1/4" Jack connector: 600 Ohms
RF Sensitivity	-105 dBm for 12 dB SINAD, typical
Image Rejection	>50 dBm, typical
Power Requirements	12 to 18 V DC at 130 mA, from external power supply
Construction	Molded ABS
Weight	245 g or less

Spec. 4.

Wireless UHF Collar Mic Set

TECHNICAL SPECIFICATIONS

A. Lavalier Wireless Microphone

Type	Condenser, electret bias
Frequency Response	60Hz to 12,000Hz* (see Frequency Chart)
Polar Pattern	Cardioid (unidirectional)
Output Impedance	1200Ω @1kHz*
Output Level	-47dBV/Pa (4.5 mV)*
Signal to Noise Ratio	66dB, 1kHz at 1 Pa*
Maximum	SPL 120dB
Dynamic Range	
(max. SPL to A-weighted noise level)	92dB*
Output Noise	28dB (typical, A-Weighted)*
Recommended Operating Voltage	+5VDC, 10V max (pin 2 to pin 1)
Polarity	Positive sound pressure on diaphragm produces positive voltage on pins 3 and 4 relative to pin 1 (ground) on the mini TA4F connector
Selectable frequencies per band	8
Compatible channels per band	4
Cable	1.22 m (48 in.) two-conductor shielded
Connector	Mini TA4F
Net Weight	23 g or less

B. Beltpack Transmitter

TECHNICAL SPECIFICATIONS

Audio Input Level	Mic setting -7 to -15 dBV, Line setting 9 to 1 dBV
Input Impedance	Mic setting 16k Ohms, Line setting 120k Ohms
Gain Adjust. Range	8 dB
RF Output	10mW Maximum
Power Requirements	Rechargeable batteries
Battery Life	Up to 10 hours (alkaline)
Weight	90 g without batteries or less
Construction	Molded ABS

C. Wireless Receiver

TECHNICAL SPECIFICATIONS

Audio Output Level	XLR connector into 100k Ohms load: -16 dBV 1/4" Jack connector into 100k Ohms load: -22 dBV (Ref. ±48 kHz deviation with 1 kHz tone)
Output Impedance	XLR connector: 600 Ohms 1/4" Jack connector: 600 Ohms
RF Sensitivity	-105 dBm for 12 dB SINAD, typical
Image Rejection	>50 dBm, typical
Power Requirements	12 to 18 V DC at 130 mA, from external power supply
Weight	245 g or less
Construction	Molded ABS

Spec. 5.

Ceiling Mountable Speakers with Metal Back Can

TECHNICAL SPECIFICATIONS

Speaker type	2-way ceiling speaker with metal back can
Frequency range	high-impact, fire-resistant (UL94V-0) plastic baffle/rim 70 Hz to 20 kHz, -10 dB, half space
Power capacity	75 W continuous pink noise power 150 W continuous program power
Nominal sensitivity	89 dB SPL, 1 W @ 1 m, 60 W tap, half space
Nominal coverage angle	110° conical coverage
Nominal impedance	16 ohms
Crossover frequency	3.5 kHz
Rotary switch taps	70 V: 60 W, 30 W, 15 W, 7.5 W, 16 ohms direct 100 V: null, 60 W, 30 W, 15 W, 16 ohms direct
Woofer	6.5" (165 mm) polypropylene cone with moisture resistant coating
Tweeter	1" (25 mm) titanium-coated dome
Overload protection	Full range power limiter with the 16 ohm direct input only, protecting the tweeter, woofer, and crossover
Input connector	(1) 5 mm captive screw connector, 4 pole (for 1 input and 1 loop-through)
Temperature/humidity	(0 to +50 °C) / 10% to 90%, non-condensing

Spec. 6.

Cables and Connectors

All cables and connectors required should be of high quality for complete installation.

Spec. 7.

Operational Programming

Complete programming for optimum working of all Mics, DSPs, Mixers, Amplifier, Speakers and Cables and Connectors should be done by the supplier. Software license has to be provided along with the hardware free of cost.

Spec.8.

Installation, Commissioning and Training

Complete installation of the Conferencing Systems including all Mics, Amplifier, Speakers, Power supply, Cables and Connectors and operational software needs to be done by the supplier.

After installation and successful commissioning, training to user group needs to be arranged by the supplier free of cost.

INDIAN INSTITUTE OF TROPICAL METEOROLOGY PUNE 411 008

TERMS & CONDITIONS

ENQUIRY NO: C-010-Hall

Tender Notice No: C-010-Hall/Tender/01/2013

- 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. This tender is not transferable.
3. Complete tender document is available on Institute's website <http://www.tropmet.res.in>. A sum of **Rs.300 (Rs. Three Hundred only) (Non-refundable)** has to be paid in the form of Demand Draft drawn in favour of "The Director, Indian Institute of Tropical Meteorology, Pune" preferably from **Nationalized Bank** for Tender fee along with Technical bid only.
4. Tenders addressed to the Director, Indian Institute of Tropical Meteorology, . Pune 411008 are to be submitted two separate bids in two separate envelopes and you may keep both the bid envelopes in an envelope. Superscribed with Tender No. for "**Supply & Installation of Conference Systems for Institute's Aryabhata Conference Hall due on 27th May 2013 at 1600 hrs.**
5. i) Technical Bid envelope will contain only the TECHNICAL SPECIFICATIONS of the indented equipment and other required documents asked for.
ii) Commercial envelope will contain only the price and any other related information, which has financial implications, will only be given.
6. Please indicate page nos. on your quotation i.e. If the quotation is containing 25 Pages, please indicate as 1/25, 2/25, 3/25 -----25/25.
7. Cost of the items should be mentioned clearly in the Commercial Offer (Part-II) only and should be quoted in Indian Rupees.
8. Last date for the receipt of completed tender is up to 16:00 hrs. on **27th May 2013 & technical bids** will be opened on the next day at 1500 hrs .
9. The tender must be valid for a period of at least **90** days from the date of opening.

10. 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.
11. Systems can be inspected on any working day between 10.00 AM to 17.00 PM.
12. Supplier shall finally warrant that all the stores, equipment and components supplied under the SUPPLY ORDER shall be new and of the first Quality according to the specifications and shall be free from all the defects (even concealed fault, deficiency in the design material and workmanship).
13. Tender must clearly indicate the features offered unit price, VAT tax, transport, transit-insurance, installation charges etc. The vendor should mention the price of the equipment and the duties/taxes to be paid such as customs duty/excise duty/VAT/Octroi etc. separately.
14. The complete equipment including operational manuals should be supplied within 6 weeks and the vendor should install the equipment within fifteen days after the delivery of the equipment.
15. As this Institute is exempted from payment of Custom Duty, Excise Duty exemption certificates will be issued on request.
16. The equipments must carry on-site warranty for **One Year** from the date of taking over of the equipments after the acceptance tests. Warranty period will stand extended for a period of total downtime of the equipments.
17. The vendor has to furnish a Bank Guarantee to the extent of 10% of the order value from a nationalized bank in the prescribed format valid for the entire period of warranty including extension if any.
18. No advance can be paid.
19. The payment terms shall be as follows:
 - i) 90% payment after supply, satisfactory installation, and successful completion of acceptance tests and training.
 - ii) 10% payment after execution of Bank Guarantee from a Nationalized Bank. The Bank Guarantee will remain valid until the expiry of warranty period including the extensions if any.
20. **Penalty Clause: If the supplier fails to Supply and Install 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.**

21. 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.
22. Vendor should arrange appropriate training to the users free of charge.
23. Indicate the names of the Indian reputed Organizations where you have supplied the AV equipment and may attach the satisfactory performance report of the work from user Organization.
24. 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.
25. The Institute is autonomous scientific research organization under the Ministry of Earth Sciences and is a recognized center 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.
26. The vendor should have appropriate facilities and trained personnel for supply, installation and warranty-maintenance of the equipment to be supplied. Detailed information in this regard may be furnished in the technical bid.
27. 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.
28. 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.
29. Vendor should clearly mention the following in Technical Bid:
- **Make and model of every item quoted.**
 - Delivery period.
 - Company profile with a list of those institutes/users should be attached where vendor has supplied the equipments in question in past.
 - A letter of AUTHORISED REPRESENTATIVE from the Principal should invariably be attached with quotation

- Earnest Money Deposit and Tender fee
- A copy of latest Income Tax clearance Certificate from Income Tax Department (INDIA)

30. Company should have annual turnover of minimum Rs.50 lakhs at least. supporting

31. The vender should compulsorily quote for the buyback of existing equipment as per Annexure V. Discount offered towards the buyback should be mentioned clearly in the commercial bid only. Lowest party will be evaluated based on quote for BOQ minus the buyback value offered.

32. Octroi payment if any, the same may please be shown separately.

33. The Tenderers are requested to quote for Educational Institutional Price for equipment, since we are eligible for the same.

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 equipments are required to be installed in Aryabhata Hall at IITM, Pune and subsequently Training is to be provided to the concerned persons of the Institute free of cost.

36. The items 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.

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

38. 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.

39. Earnest Money Deposit:

- a) The Earnest Money Deposit of Rs. 40,000/- must be paid / sent along with your technical bid in the form of a Demand Draft, Banker cheque or Bank Guarantee (from a Nationalized Bank only) drawn in favor 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, 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 **One Month** 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.
 - d) **Tenders not accompanied with Demand Draft I Bank Guarantee towards "Earnest Money Deposit" will summarily be rejected.**
40. Part and incomplete tenders are liable to be rejected.
41. Conditional Offers will not be considered.
42. The tenders must be clearly written or typed without any cancellations / corrections or overwriting.
43. **Fax / E-mail / Telegraphic / Telex tenders will not be considered.**
44. 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 – 411 008.
45. **Venders should submit a bar chart along with technical bid for supply of equipment and for completion of work, failing which technical bid shall not be considered. The entire work of supply & installation is to be completed within 15 days from the date of issue of LOI.**
46. 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.
47. The Vendor Should give an SLA for (24X7) support valid for warranty/extended warranty with 2 hours response time and same day resolution.
48. The vendor needs to have a full fledged office, PoC or testing centre to showcase and test the functionality of the ordered equipments in Pune.
49. The vendor should have a full fledge office in Pune, with sufficient Certified Engineers on his pay roles and relevant documents are to be produced.
50. **Any physical changes, cutting of ceiling/ removal of paint should be restored to the original finish by the supplier without additional cost.**
51. **Any minor fault or repair should be rectified with one working day and major fault or repair should be rectified within three working days. Necessary spares/materials should be kept ready at IITM premises and standby equipment should be made available for any event/ function if required.**

52. Delay in non performing clause no. 51 will attract penalty at the rate of 1% per week and minimum upto 10% of the total order value and such money will be deducted from any money due or which may become due to the supplier.

53. Last Date and Time for receipt of Tenders: Upto 1600 hrs. on 27th May 2013. and Time of opening of Tenders : At 1500 hrs. on 28th May 2013. (Part - I Technical Bid only).

54. Director reserves the right to reject any or all tenders without assigning any reason.



(Shri.S.M.D.Jeelani)
Head, Computer and Data Division
For Director

ANNEXURE- IV

Bill of Quantity

Sr. No.	Description	Qty	Unit Rate	Taxes	Total Amount
1.	Table Microphone (1 Chairman Mike and 29 delegate mikes) (As in Specification 1)	30 nos.			
2.	DSP/AMP/Mixer/Feedback Reducer (As in Specification 2)	1 set			
3.	Wireless Hand Held Mike Set (As in Specification 3)	2 nos.			
4.	Wireless Collar Mike Set (As in Specification 4)	2 nos.			
5.	Ceiling Speakers (As in Specification 5)	14 nos.			
6.	Cables/Connectors (As in Specification 6)	1 set			
7.	Operational Programming (As in Specification 7)	1 job			
8.	Installation/Commissioning/Training (As in Specification 8)	1 job			
10	Buyback value for existing system	1 set			
11	Extended Warranty with Annual Maintenance for 2 nd year	1 job			
12	Extended Warranty with Annual Maintenance for 3 rd year	1 Job			

ANNEXURE- V**Buyback Items: -**

Sr. No.	Description	Qty.	Make/model
1	Table mikes with speaker	29 nos.	Alpha make
2	Collar mikes	2 nos.	Proton, Studio Master & ,Mipro
3	Hand mike	2 nos.	Studio Master
4	Speakers	14 nos.	
5	Amplifier	1 no.	Alpha make
6	Mixer Amplifier	1 No.	Ahuja make