

Government of Jammu and Kashmir
DEPARTMENT OF ECOLOGY, ENVIRONMENT AND REMOTE SENSING
S.D.A. Colony, Bemina, Srinagar, Jammu & Kashmir – 190018
Paryavaran Bhawan, Transport Nagar, Gladini, Jammu- 180006

Tender No: DEERS/NMSHE/01 of 2017

Dated: 23-12-2017

**Procurement of Equipments for Climate Change Center J&K under
NMSHE PROJECT**

APCCF/DIRECTOR
DEPARTMENT OF ECOLOGY, ENVIRONMENT AND REMOTE SENSING
Paryavaran Bhawan, Transport Nagar, Gladini, Jammu- 180006

Phone/Fax No. 0191-2474553

Website(s): www.jkdears.com
www.jknmshe-ccc.org

Government of Jammu and Kashmir
DEPARTMENT OF ECOLOGY, ENVIRONMENT AND REMOTE SENSING

Paryavaran Bhawan, Transport Nagar, Gladeni, Jammu
Website: www.jkdears.com email: dirjkers@gmail.com

e-Procurement Tender Notice

Main Portal: <http://jktenders.gov.in>

Department Portal: <http://www.jkdears.com>, www.jknmshe-ccc.org

Name of Work: Notice Inviting Tender for Procurement of Equipment for Climate Change Centre under NMSHE Project

For and on behalf of the Governor of Jammu & Kashmir State, the Department of Ecology, Environment and Remote Sensing, invites tender from experienced and qualified agencies for “**Procurement of Equipment for Climate Change Center J&K under NMSHE PROJECT**” sponsored by DST, New Delhi. The interested reputed firms, companies or consortium of companies may submit the sealed quotations in two-parts for the “Supply, training and installation of Telemetry Based Weather Equipment- 3 No, GPS Based Data Server-1 No, Respirable Dust Sampler-3 No, Water Analyser- 1 No, Power Generator-1 No, and Display for Projector-1 No as per the specifications given in Annexure-1 of the tender notice. The tender document can be downloaded from the departmental website. The following is the abstract of the tender document:-

e-NIT No: DEERS/NMSHE 01 of 2017 and Date: 23-12-2017

Notice Inviting Tender Details		
S.No	Description and Qty : For Full Specifications - Refer Annexure:1	
1.	Department Name	DEPARTMENT OF ECOLOGY, ENVIRONMENT AND REMOTE SENSING
2.	Tender Number	DEERS/NMSHE/ 01 of 2017
3.	Tender Subject	Procurement of Equipment for J&K Climate Change Center under NMSHE PROJECT
4.	Estimated Value of Tender (Approx.)	Rs. 48 lakhs
5.	Form of contract	Item-wise
6.	Nature of Bidding	Two Part Bidding: 1 st Part: Techno-Commercial Bid 2 nd Part: Price Bid
7.	AMC	One year
8.	Tender Category	Scientific Equipment
9.	Earnest Money Deposit (EMD) (In ₹)	1. Telemetry based Weather Equipment= 50,000 2. GPS based Data Server= 8,000.00 3. Respirable Dust Sampler= 12,000.00 4. Water Analyzer= 16,000.00 5. Power Generator= 7,000.00 6. Display for Projector= 3,000.00
10.	Bid Security Payable to	By CDR/DD in favour of Director, DEE&RS
11.	Processing Fee (INR)	NIL
12.	Schedule Tender Obtaining Date & time	23-12-2017 (10:00 Hrs)
13.	Online Bid Submission Closing Date	11-01-2018 (16.00 Hrs)
14.	Hardcopy Bid Submission Closing Date	12-01-2018 (16.00 Hrs)
15.	Technical Bid Opening Date	13-01-2018 (11.00 Hrs)
16.	Delivery Period	4 weeks from the date of purchase order
17.	Place of Tender Opening	OFFICE OF THE APCCF/DIRECTOR Department Of Ecology, Environment and Remote Sensing,

		Paryavaran Bhawan, Transport Nagar, Gladeni, Jammu- 180006
18.	Officer Inviting Bids/ Contact Person	APCCF/DIRECTOR
19.	Address/E-mail id	Department Of Ecology, Environment and Remote Sensing, Paryavaran Bhawan, Transport Nagar, Gladeni, Jammu- 180006 dirjkers@gmail.com / jkccdeers@gmail.com
20.	Contact Details/ Telephone, Fax	Ph/Fax: 0191-2474553, 9419551345, 9419784349
21.	Eligibility Criteria	As per Section II, Clause 2 of the enclosed bid document
22.	Procedure for Bid Submission	<p>The bidders shall submit their eligibility and qualification details, Technical bid, Financial bid etc., in the standard formats.</p> <p>The bidders shall submit the copies of all the relevant certificates, documents etc., in support of their eligibility criteria/ technical bids and other certificates/ documents.</p> <p>The bidder shall sign on the statements, documents, certificates, owning responsibility for their correctness/ authenticity.</p> <p>The bidder shall submit a copy of all the required documents to be attached along with with bid document to the tender issuing authority as per the tender notice and bid document before opening of the technical bid.</p> <p>The bidders are requested to submit the Hardcopy Original DD towards EMD, Technical and Financial tenders in separate sealed covers within a single sealed cover duly marked "Purchasing of Equipments for J&K Climate Change Center under NMSHE PROJECT" to the Tender Inviting Authority either personally or through courier or by post and the receipt of the same by DEE&RS within the stipulated time shall be the responsibility of bidder. Other documents shall be submitted at the time of concluding agreement. The department shall not take any responsibility for any delay or non-receipt. If any of the documents furnished by the bidder is found to be false/fabricated/bogus, the bidder is liable for black listing, forfeiture of the Bid Security, cancellation of work and criminal prosecution. The bidder is requested to get a confirmed acknowledgement from the Tender Inviting Authority as a proof of Hardcopies submission to avoid any discrepancy.</p>
23.	Tender Document:	<p>The bidder is requested to download the detailed tender document from the departmental website www.jkdears.com and read all the terms and conditions mentioned in the tender document and seek clarification if any from the Tender Inviting Authority.</p> <p>The bidder has to keep track of any changes by viewing the Addendum/Corrigenda issued by the Tender Inviting Authority on time-to- time basis. The Department calling for tenders shall not be responsible for any claims/problems arising out of this.</p>
24.	Bid Submission Acknowledgement:	The bidder shall complete all the processes and steps required for Bid submission and receive the acknowledgement of the same.
25.	Rights reserved with the Tender Inviting Authority	DEE&RS reserves the right to accept or reject any or all of the bids received without assigning any reasons. DEE&RS also reserves the right to split the tender and place orders on more than one bidder at its discretion.
26.	General Terms and Conditions	<ol style="list-style-type: none"> As per Tender Specification. Bidders shall submit requisite Bid Security in original by the stipulated price bid opening date/time, without fail. The price bid opening date indicated is tentative. If there is any change, alternate date will be communicated to the qualifying bidders separately. All disputes are subject to the jurisdiction of J&K Courts only.
27.	Scope / Description Of Work Technical Specification Details	Refer Annexure 1

BID DOCUMENT

Annexure: 2

PART I - BID FORM
Tender No DEERS/NMSHE/01 of 2017 dated: 23-12-2017

3

Name of the Bidder & Address:	Details of Bid Security
	D/D No. / Date
	Banker

To
Dear Sir,

We, the undersigned, declare that:

- a) We have gone through the terms and conditions of bid and enclosed a Bank Demand Draft towards the BID SECURITY for the bid.
- b) Having received and examined the conditions of contract and specifications in Bid Document of DEE&RS in Tender No. _____, the receipt of which is hereby duly acknowledged. We, undersigned, offer the services in conformity with the said conditions of contract and specifications, made part of this bid.
- c) We undertake, if our bid is accepted, to commence the services immediately and to complete schedule of all the services specified in the contract within the stipulated time period as specified in the contract from the date of issue of award of contract.
- d) If our bid is accepted, we will obtain the guarantee of a Nationalised/Scheduled Bank for a sum not exceeding 5% of the contract value towards performance security for the contract.
- e) We agree to abide by this bid validity for a period of 180 days from the date fixed for bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- f) Until a formal contract is prepared and executed, this bid together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.
- g) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared ineligible by any governmental organization.
- h) We understand that you are not bound to accept the lowest evaluated bid or any bid that you may receive.

Dated this day of201_.

Signature:
Name:
In capacity of:

Duly authorized to sign the bid for and on behalf of

Witness

Address

Signature

PART II - INFORMATION ON THE BIDDER

1. Name of the Bidder Firm / Company :
2. Address : _____

- Telephone No. : **Office**
Residence
Mobile
FAX
3. Address of Local set up(if the address is not same as above) : _____

- Telephone No. : **Office**
Residence
Mobile
FAX
4. Registration particulars of the Firm/Company viz. Proprietary, Partnership, Private Limited, Public Limited etc. (attach photocopy of the Certificate of Incorporation) :
5. Name of Proprietor/Partner/Director signing the tender document. :
6. Name/Designation/Address of the Authorized Signatory holding the Power of Attorney (if any) :
7. GST/Service Tax Registration No. (if applicable) : **ST:**
8. Income Tax Particulars :
Permanent Account Number (PAN) :
Income Tax Returns Certificate (2011-12) (attach photocopy of the same) : **No.**
Date
Year
- Name under which assessed :
Income Tax Circle/District where assessed :
Amount paid : **Rs.**
9. Details of Experience :

Certified that the information given above is true and if any information found to be false or misleading the tender/contract may be cancelled.

Name:
Signature

(Capacity in which signed)

PART III - LETTER OF AUTHORIZATION FOR ATTENDING BID OPENING

Subject : Authorization for attending the bid opening on 13.01.2018 in the tender of DEE&RS for Procurement of Equipments for J & K Climate Change Center under NMSHE PROJECT on behalf of

Following persons are hereby authorized to attend the bid opening for the tender mentioned above on behalf of _____ (Bidder) in order of preference given below.

<u>Order of preference</u>	<u>Name</u>	<u>Specimen Signature</u>
I		
II		

Alternate Representative _____

Signature of Bidder
Or
Officer authorized to sign the bid on behalf of the Bidder.

- Note:
1. Maximum of two representatives will be permitted to attend bid opening. In cases where it is restricted to one, first preference will be allowed. Alternate representative will be permitted when regular representative are not able to attend.
 2. Permission for entry to the hall, where the bids are to be opened, may be refused in case the authorization as prescribed above is not received.

PART IV - PRE-STAMPED RECEIPT FOR REFUND OF BID SECURITY

Received with thanks from the _____, DEE&RS a sum of Rs. -----/ (Rupees -----
----- Only), towards the refund of Bid Security paid in respect of the tender
for Procurement of Equipments for J & K Climate Change Center under NMSHE PROJECT against
Tender No. Dated

Date:

Signature of Bidder
(On Two-Rupee Revenue Stamp)

Note: Bid Security will be returned to unsuccessful Bidders only after finalization of the tender.

Name & Address: _____

Annexure-3

Part- I

TECHNO-COMMERCIAL BID FORMAT

Procurement of Telemetry Based Weather Equipment- 3 No, GPS Based Data Server-1 No, Respirable Dust Sampler-3 No, Water Analyser- 1 No, Power Generator-1 No, Display for Projector-1 under NMSHE Project
TENDER NO DEERS/NMSHE/01 of 2017, DATED: 23.12.2017

Your offer Ref _____ Dated _____

Important Note:

- (1) Un-Price Bid Should Be Provided.
- (2) Price Should Be Quoted For Individual Sensors and Sub Items
- (3) Each Of The Automatic Weather Station (AWS) Should Be Quoted Separately Considering The Different Configuration.
- (4) Technical Brochure Of Individual Sensor/Data Logger Should Be Provided.

Name of the Tenderer	
Address	
E-Mail ID	
Phone Nos	
Detailed Technical Specification offered	
Make/Manufacturer	
Name of Indian Manufacturer/Make	
COMMERCIAL TERMS	100% after successful delivery and installation
Payment Term	
Delivery Period	4 Weeks from the date of Purchase Order/LOI
Delivery Term	Free Delivery of Materials at DEE&RS ON SITE
Delivery Place	DEE& RS Srinagar, Jammu & Ladakh
Offer Validity	4 weeks from the date of bid opening
Packing & Forwarding Charges	To Vendor's Account only
Excise Duty (if any) in %	
GST/VAT/CST in	
Freight & Transit Insurance Charges	To Vendor's Account only
EMD Details	
Tender Fee	Free
Acceptance to give 5% Security Deposit in the event of placement of order	YES
Acceptance for LD Clause as per Annexure-6	YES
Acceptance to receive payment after successful delivery and installation in DEE&RS Srinagar, Jammu and ladakh	YES
Acceptance to all other Tender norms, terms and conditions not mentioned herein	YES
Pan No	
GST/Service Tax Registration No	
Service Tax Category (In Words)	
Service Tax Accounting Code No	

Signature of the authorised person:

Name of the authorised person:

Designation of the authorised person:

Company's Seal :

Part II
PRICE BID FORMAT

“Supply and installation of Telemetry Based Weather Equipment- 3 No, GPS Based Data Server-1 No, Respirable Dust Sampler-3 No, Water Analyser- 1 No, Power Generator-1 No, Display for Projector-1 under NMSHE Project

TENDER NO DEERS/NMSHE/01 of 2017, DATED: 23-12-2017

Your Offer Ref _____ Dated _____

S. No	Description and Specification of the item	Qty. In Units	Unit Price In Rs.	Excise Duty %	CST/VAT/ GST %	Other Tax	Total Price in Rs
1.	Telemetry Based Weather Equipment						
2.	GPS Based Data Server						
3.	Respirable Dust Sampler						
4.	Water Analyser						
5.	Power Generator						
6.	Display for Projector						

Certified that the rates quoted are inclusive of all the applicable taxes, training and installation charges

Signature of the authorized person:

Name of the authorized person:

Designation of the authorized person:

Company's Seal:

Note:

The Bidder is allowed to quote for only one or more items as applicable.

The above financial template should strictly follow. Any deviation from the above template (in terms of description and specification of the item) may lead to cancellation of the tender.

ANNEXURE - 4

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Definitions

1.1 In this Contract, the following terms shall be interpreted as indicated:

- (i) "The Order" means the Purchase Order placed by the Purchaser including all the attachments and appendices thereto and all documents incorporated by reference therein;
- (ii) "The Contract Price" means the price payable to the Supplier under the Order for the full and proper performance of its contractual obligations;
- (iii) "The Goods" means all the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the Contract;
- (iv) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Supplier covered under the Contract;
- (v) "GCC" means the General Conditions of Contract contained in this section.
- (vi) "SCC" means the Special Conditions of Contract.
- (vii) "The Purchaser" as specified in Special Conditions of Contract.
- (viii) "The Purchaser's country" is "India".
- (ix) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
- (x) "Day" means calendar day.

2. Application

2.1 These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Standards

3.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

4. Use of Contract Documents and Information

4.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance. The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the Contract.

4.2 Any document, other than the Contract itself, enumerated in GCC Clause 4.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

4.3 The purchaser may be under obligation to make any document/information submitted by the bidder in response to this bid public if required under the provision of Right to Information Act 2005. Therefore, bidder may explicitly indicate if any document/information in his tender includes information of commercial confidence, trade secrets or intellectual property, the disclosure of which would jeopardize the competitive position of the bidder.

5. Patent Rights

5.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6. Submission of the bids

6.1 All bids complete in every respect must reach this office within the last date and time of receipt of bid. No extension shall be allowed for any reason what so ever. Late tenders, Tenders received without Bid security/Earnest Money, cost of bidding documents, if applicable etc. shall be rejected summarily.

6.2 Tender documents are available for sale as per the information specified in Invitation for Bids. Interested bidders may purchase the tender documents on payment of the cost thereof or download directly from our website, as indicated in invitation for bids. The Purchaser is not liable for either non-receipt of the tender document or for late receipt of the tender documents.

7 Earnest money deposit (EMD)

7.1 The tenderer shall submit the Earnest Money Deposit by way of Demand Draft drawn in favour of Director Department of Ecology, Environment and Remote Sensing payable at Srinagar.

7.2 EMD shall not carry any interest. EMD shall be returned / refunded to the unsuccessful tenderers only after finalization of contract.

7.3 Offers without EMD Payment, will be rejected.

7.4 EMD shall be forfeited if the tenderer withdraws from the offer or modifies the terms and conditions thereof, without prejudice to DEE&RS rights any, suffered by DEE&RS, even after forfeiture of EMD.

7.5 Unreturned EMD in respect of earlier tenders, if any, cannot be adjusted against this tender.

7.6 EMD shall be released only after the successful execution (Supply & installation) of the item(s).

7.7 The original EMD Demand Draft should be directly submitted with tender to Department of Ecology, Environment and Remote Sensing **Paryavaran Bhawan, Transport Nagar, Gladini, Jammu- 180006** with clear superscription on the cover as EMD for Procurement of Item(s) name (Telemetry Based Weather Equipment- 3 No, GPS Based Data Server-1 No, Respirable Dust Sampler-3 No, Water Analyser- 1 No, Power Generator-1 No, Display for Projector-1 under NMSHE Project) **TENDER NO DEERS/NMSHE/01 of 2017, DATED:23-12-2017** on or before the date of closing of tender

8 Inspections and Tests

8.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing in a timely manner of the identity of any representatives retained for these purposes.

8.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at the point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.

8.3 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

8.4 The Purchaser's right to inspect test and, where necessary, reject the Goods after the Goods arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing

9.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, if any, specified in SCC and in any subsequent instructions ordered by the Purchaser.

10. Delivery and Documents

10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified by the Purchaser in the order within the period as indicated in the SCC. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

11. Insurance

11.1 The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in SCC.

12. Transportation

12.1 Where the Supplier is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the Contract Price.

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, including additional services, specified in SCC, if any:

- (i) Performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
- (ii) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (iii) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- (iv) Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (v) Training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

14 Spare Parts

14.1 As specified in the SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (i) Such spare parts as the Purchaser may elect to purchase from the Supplier, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and
- (ii) In the event of termination of production of the spare parts:
- (iii) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
- (iv) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

14.2 Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.

15 Warranty

15.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Purchaser's Specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. The warranty should be comprehensive and on site.

15.2 This warranty shall remain valid for 24 months after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, or for 30 months after the date of shipment whichever period concludes earlier, unless specified otherwise in the SCC.

15.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 05 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 07 days. If the supplier having been notified fails to remedy the defects within 07 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.

16 Payment

16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be as specified in the SCC.

16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the Purchaser normally within forty-five (45) days after submission of the invoice or claim by the Supplier.

16.4 Payment shall be made in currency as indicated in the order.

17 Prices

17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

18 Change Orders

18.1 The Purchaser may at any time, by written notice given to the Supplier pursuant to GCC Clause 30, make changes within the general scope of the Contract in any one or more of the following:

- (i) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (ii) The method of shipping or packing;
- (iii) The place of delivery; and/or
- (iv) The Services to be provided by the Supplier.
- (v) The delivery schedule.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within fifteen (15) days from the date of the Supplier's receipt of the Purchaser's change order.

19 Contract Amendments

19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

20 Assignment

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

21 Subcontracts

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

21.2 Sub-contract shall be only for bought-out items and sub-assemblies.

22 Delays in the Supplier's Performance

22.1 Since time is the essence of the contract, delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser in the Contract.

22.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s).

22.3 As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

22.4 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalty clause.

23 Penalty

23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the Percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 24.

24 Termination for Default

24.1 The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- (i) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
- (ii) If the Supplier fails to perform any other obligation(s) under the Contract.
- (iii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

24.2 For the purpose of this Clause:

(i) "Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

(ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;"

24.3 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause

24.1, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

25 Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22, 23 and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26 Termination for Insolvency

26.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

27 Resolution of Disputes

27.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

27.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in the SCC. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.

28 Governing Language

28.1 The contract shall be written in English language. Subject to GCC Clause 30, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

29 Disputes

29.1 The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in SCC.

30 Notices

30.1 Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address specified in the SCC.

30.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

31 Taxes and Duties

31.1 Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser.

Signature & Seal of Contractor

ANNEXURE-5
SPECIAL CONDITIONS OF CONTRACT (SCC)

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses

1 Definitions (GCC Clause 1)

1.1 The Purchaser is 'The Director, Department of Ecology, Environment & Remote Sensing, Bemina Srinagar.

2 The Director, DEE&RS, will be the designated officer from DEE&RS to whom the Contractor will report to and seek any clarification or further information required in respect of the work under the Contract. In the situation of absence or non availability of the Director, DEE&RS, the duties and functions of the Director, DEE&RS, will be discharged by an authorized In-charge Officer(s) of DEE&RS.

3 Inspection and Tests: Inspection and tests prior to shipment of Goods and at final acceptance are as follows:

3.1 After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier's plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer's test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The location where the inspection is required to be conducted should be clearly indicated. The supplier shall inform the purchaser about the site preparation, if any, needed for installation of the goods at the purchaser's site at the time of submission of order acceptance.

3.2 The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.

3.3 In the event of the ordered item failing to pass the acceptance test, a period not exceeding one week will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserves the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.

3.4 Successful conduct and conclusion of the acceptance test for the installed goods and equipments shall also be the responsibility and at the cost of the Supplier.

4 Manuals and Drawings

4.1 Before the goods and equipments are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.

4.2 The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.

4.3 Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.

5 Packing (GCC Clause 9) Add as Clause 9.3 of the GCC of the following:

5.1 Packing Instructions: Each package will be marked on three sides with proper paint/indelible ink, the following:

- (i) Item Nomenclature
- (ii) Order/Contract No.
- (iii) Country of Origin of Goods
- (iv) Supplier's Name and
- (v) Packing list reference number

6 Delivery and Documents (GCC Clause 10)

6.1 Delivery of the goods should be made within a maximum of 12 weeks from the date of placement of purchase order. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AWB etc and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- (i) 4 Copies of the Supplier invoice showing contract number, goods' description, quantity unit price, total amount;
- (ii) Acknowledgment of receipt of goods from the consignee(s) by the transporter;

- (iii) Insurance Certificate if applicable;
- (iv) Manufacturer's/Supplier's warranty certificate;
- (v) Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report; and
- (vi) Certificate of Origin.
- (vii) Two copies of the packing list identifying the contents of each package.

6.2 The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

7 Insurance (GCC Clause 11)

7.1 For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from supplier place to final destination at Department of Ecology, Environment & Remote Sensing, Bemina Srinagar on "All Risks" basis including War Risks and Strikes.

8 Incidental services (GCC clause 13) The incidental services also include:

8.1 Furnishing of 01 set of detailed operations & maintenance manual.

9 Warranty (GCC Clause 15)

9.1 Warranty period shall be 24 months from date of acceptance, installation and testing of Goods or 30 months from the dates of Shipment, whichever occurs earlier. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. The warranty should be comprehensive on site.

9.2 If a different (read higher) period of warranty has been specified in the 'Technical Specifications' Chapter, then the period mentioned in Clause 9.1 above shall stand modified to that extent.

10 Payment (GCC Clause 16)

10.1 100% Payment shall be made by the Purchaser against delivery, inspection, successful installation, commissioning and acceptance of the equipment at Department of Ecology, Environment & Remote Sensing in good condition and to the entire satisfaction of the Purchaser.

11 Penalty Clause (GCC Clause 23)

11.1 For delays: GCC Clause 23.1 -- The applicable rate is 1% per week and the maximum deduction is 10% of the contract price.

12 Resolution of Disputes (Clause 28): Add as GCC Clause 27.3 the following:

12.1 The dispute resolution mechanism to be applied pursuant to GCC Clause 27 shall be as follows:

(i) The dispute shall be referred to the Director Department of Ecology, Environment & Remote Sensing, Bemina Srinagar and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

13. Applicable Law (GCC Clause 29) Add as Clause 29.2 of the GCC the following:

13.1 The place of jurisdiction would be Jammu & Kashmir.

14. Notices (GCC Clause 30)

14.1 For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.

(i) Purchaser: The Director,
Department of Ecology, Environment and Remote Sensing
Paryavaran Bhawan, Transport Nagar, Gladini, Jammu- 180006

(ii) Supplier: (To be filled in by the supplier)

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.....
.....

15. Progress of Supply

15.1 Supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:

- (i) Quantity offered for inspection and date;
- (ii) Quantity accepted/rejected by inspecting agency and date;
- (iii) Quantity dispatched/delivered to consignees and date;
- (iv) Quantity where incidental services have been satisfactorily completed with date;
- (v) Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date;
- (vi) Date of completion of entire Contract including incidental services, if any; and
- (vii) Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).

16. Right to Use Defective Goods

16.1 If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

17. Supplier Integrity

17.1 The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

18. Training

18.1 The Supplier is required to train the designated Purchaser's technical and end user personnel to enable them to effectively operate the total equipment.

Signature & Seal of Contractor

Annexure-1

List of Equipment's for e-tendering for Climate Change Centre under NMSHE Project

Sr. No.	Name	Unit	Quantity	SPECIFICATIONS
1.	Telemetry Based Weather Equipment/Station with Mast*	Set	3	<p><u>Data Acquisition System having following features:</u>with following specifications or better</p> <ul style="list-style-type: none"> • Should have 18 bit resolution with built in display • Robust, Real Time & Stand alone, low power data logger • Capability of Remote Monitoring & Control using various communication methods as RS232, RS485, GSM, Spread Spectrum • Removable Terminal Base Assembly • User definable memory allocation & mode • Easy Configurable Web Based Software • The system shall be able to transfer data continuously from the monitoring site to the central lab. • Capability of putting SMS alerts. • System to be provided with internal battery backup so that in case of supply failure it will be automatically switched on to Battery. • Display to be provided separately which can show all the mentioned weather parameters continuously. <p><u>System Specifications:</u></p> <ul style="list-style-type: none"> ○ LCD display with 2 line 16 characters with back light and keypad facility for function execution. ○ Operating Temperature range : -45 °C to 70 °C or better ○ Display functions – channel data, alarms and system status ○ Real Time Clock : resolution 200 μs accuracy +/- 1 min /year or better ○ Power supply – 10 to 30 Vdc and facility to connect additional power source to system. ○ 5W power consumption or better ○ 6V (1.2Ahr) lead acid internal battery with 21 days of operating capacity with I hour sampling or better ○ Weight shall not be more than 2.0 Kg ○ Inbuilt signal conditioning for various parameter i.e. voltage, current, temperature (TC, RTDs , Thermistors, etc.) and various IC sensors ○ Universal channel concept to allow the same terminals to be used for other type

of sensors

Analog Inputs:

- 2 -6 number of analog channels
- Measures voltage, current, resistance and frequency
- Resolution up to 0.25 μ V and 2.5 nA, 1.5 m Ω . or better
- Accuracy 0.1% or better
- Should have isolation between the inputs
- Input impedance > 100 M Ω programmable or better
- Sampling Resolution: 18 bit or better
- Linearity : 0.01 % or better
- Facility to expand the number of channels to at least 90 channels or better

Digital Channels:

- 4 Flexible Digital channels
- 8 Bi-directional channels for state & count input and state output
- Digital Input Type : 4 logic level measures state or low speed count
- Digital Output type : 3 with open drain FET
- 1 latching relay
- 4 dedicated counters or 2 phase encoders
- 1 SDI – 12 inputs, shared with digital channels
- 2 channels available and programmable for data to be logged from smart sensors with Host and Dedicated port

Alarms with high, low, within range and outside range conditions, delays.

Memory:

- Internal storage capacity should be at least 128 MB i.e 100,00,000 data points which can be expanded 90,000 data points per 1MB using memory stick
- Expandable memory up to 32GB using USB drive/ memory stick or better
- DAQ system has up to 11 numbers of schedules with schedule rates of 10 msto days to program logging times and triggering facilities or better

WIND DIRECTION SENSOR: with following specifications or better

Sensor : Wind vane coupled to a Linear endless Potentiometer

Range : 0 to 359 degrees from North

Accuracy: + 3 degrees.

Linearity: Within the accuracy limit

Output: 0 to 5 K ohms resistance corresponding to the range option of 0 to 1 Volt or 0 to 2.5 Volt for the range

Power input: 5 to 12 Volt depending on the users requirement.
Termination: On a 4/5 pin MS connector (including Anemometer)

WIND SPEED SENSOR: with following specifications or better

Sensor : 3 cup rotor coupled to a chopper and IR emitter/ detector circuit.

Range : Wind speed 0 to 60 Meters /sec

Accuracy : + 2% of full scale

Starting Threshold : 0.3 Meters /sec

Linearity : Within the accuracy limits.

Output : TTL level pulses frequency proportional to W .Speed.
Approx. 15 Hz/ Mtr/sec

OPTION – Voltage output 0 - 1 V or 0 – 2.5V for 0 to 60 Meters /sec

AIR TEMPERATURE SENSOR :with following specifications or better

- Sensor : Standard Platinum RTD element (PT1000, or PT100 mounted inside weather shield)
- Range : - 40 degrees to + 60 degrees Celsius.
- Resolution : 0.1 degrees Celsius.
- Accuracy : + 0.2 degrees Celsius.
- Output : Resistance
- Weather Shield: Weather shield coated with weather proof reflective white paint
- Size of body: 320(H) x 90 mm diameter (with weather shield).

Housing : Nylon body with weather shield and brass system to mount the sensor. The sensor is fitted with a three pin MS connector for easy removal.

HUMIDITYSENSOR: with following specifications or better

- Sensing: Solid state capacity type sensor.
- Resolution: 0.1 %.
- Range: 0 to 100 % operating at - 40 °C to +50° C
- Accuracy: ± 3% of full scale reading.
- Operating Temperature: - 40 °C to +50° C
- Power requirement: + 5 volts DC.
- Power consumption: ~ 4 mA.
- Output : 0- 1V for 0 to 100% humidity
- Weather Shield: Weather shield with weather proof reflective white paint coating.

- Size of body: 250 (H) x 90 mm diameter. (With weather shield)

RAINFALL SENSOR: with following specifications or better

Sensor: Tipping bucket rain gauge.

- Sensing: Magnet and reed switch (on-off output).
- Resolution: 0.5 mm.
- Accuracy: better than + 5%
- Operating Temperature: -40 ° C to +50 ° C with built in heater (optional)
- Rim diameter: 203 mm.
- Collecting area: 325 mm².
- Rain gauge is made of FRP.
- Bucket is made of stainless steel and mounting assembly of powder coated brass.(SS316 body optional)
- Capacity: Unlimited.
- Sensitivity: 0.5 mm or, 0.2 mm (rainfall per pulse)

Solar Radiation Sensor :with following specifications or better

- Sensor : 72 element thermopile.
- Spectral range : 0.3 to 3 μ meters
- Sensitivity : ~ 20 micro volts/W/M².
- Time constant : < 30 seconds.
- Range : 0 – 1500 W/ Sq.m
- Output : 0 to 25 milli volts.

Installation

Fencing and civil work-Labor, Cement, Concrete Base, Paint

PC Software for Windows Standard **or** Microsoft Windows 7 Professional – For Configuration of Data Logger

Portal Software

To retrieve process and store the data received in real time from three weather stations remotely via GSM technology.

* The Data Logger should incorporate the latest state-of-the-art technology and must

				<p>consume very low power. Since the equipment will have to operate under stringent weather conditions in hilly regions, the system should be rugged and sealed to avoid ingress of moisture. The complete details of the current set up of the data logger should be provided. The loading of setup/program will be demonstrated with compact Flash card and Tough book separately. The user manual should spell out the settings. A separate copy of the set up programme should be provided in a CD. The design of the data logger should be modular and the replacement of the modules should be easy and user friendly. The data loggers should have least tuning parts (preferably none) and should provide consistent performance for at least two years. The Data loggers should be enclosed in a weatherproof enclosures & IP66 rated enclosure made of Reinforced Polyester (FRP) composite material. Keeping in view the low temperature conditions in the field, there should be a provision for quick and easy replacement of the Data loggers from the weatherproof enclosures. The mounting/ dismounting of the Data loggers in the enclosure should be with the help of latches. Further, it should be possible to lock/ unlock these latches with gloves-in-hand. User manual for the station will also be provided by the firm which will include the setup/program details, calibration constants, wiring diagram of the concerned sensors, and any other station specific details.</p> <p>Installation is to be done at any place in three different regions of J&K viz Jammu, Kashmir and Ladakh</p> <p>Onsite installation i.e., Jammu, Ladakh and Kashmir with 1 year maintenance</p> <p>Should be able to send data in real time to a data server placed remotely at Srinagar HQ via GSM technology</p>
2	GPS Based Data Server	Unit	1	<p>Intel @Xenon Quad Core Dual Proc Capable E3-1220 v2 2.5 GHz/16GB, DDR3 RAM/HDD 2 x 1TB, Non-hot Plug SATA/DVD ROM/, Rack Type, TFT monitor for high resolution graphic computer (24 inch), IPS Technology with Keyboard and Mouse with *Online UPS and *Stabilizer.</p> <p>*Online UPS: 10.0 KVA, indicative backup time: 60 Minutes with isolation transformer suitable for single phase AC input & single phase AC output</p> <p>*Stabilizer:10.0 KVA Automatic</p>
3	Dust Sampler	Unit	3	<p>Key Features:</p> <ul style="list-style-type: none"> • Dual Channel enables measurement of PM-10 & PM 2.5 Simultaneously • PM-10 Confirms to 40 CFR, Part 50 Appendix J of USEPA • PM-2.5 Confirms to 40 CFR, Part 50 Appendix L of USEPA • Microprocessor based precision flow control for each channel • Data logging of all parameters for each channel • Data Retrieval by USB and RS-232 ports • Portable and foldable tripod stand and carry case

SPECIFICATIONS:

PM 2.5 Size Separator: Separate set of inlet assembly with EPA PM 2.5 WINS Impactor

PM 10 Size Separator: EPA Omni- directional ambient particle inlet with 10 μ separation assembly & sample transport tube

Flow Rate Meter & Volume Totalizer (USEPA Procedure Followed): Flow in LPM on Digital Display for both the channels with a Resolution of 0.01 LPM under actual operating conditions. Flow rate maintained constant @ 16.67 LPM with ± 2 % Accuracy throughout sampling period using microprocessor based digital.

Clock/ Timer System: Programmable Real Time control system with automatic start & stop & digital display of date & time & time of sampling.

Temperature Sensors: For Ambient temperature & Two Filter temperature for PM 2.5 and PM 10 each. Range -5 $^{\circ}$ C to 50 $^{\circ}$ C with a Resolution of 0.1 $^{\circ}$ C.

Bar Press Sensor: Range 600 to 800 mm Hg. Resolution, 1 mm Hg

Leak Test: Internal & External leak check feature for accurate sampling

MICROPROCESSOR BASED DIGITAL FLOW CONTROLLER

Sample Flow Rate: Flow in LPM on digital display for both the channels with a Resolution of 0.01 LPM under actual operating conditions. Flow rate maintained at 16.67 LPM (1 m³ /hr) ± 5 %. Accuracy ± 2 of reading throughout the sampling period.

Volume Totalizer: volume totalized from flow rate & available on display with a resolution of 0.01m³.

Interval Data: 5 minute average of Ambient Temperature, Filter temperature, Barometric Pressure, Real Time Flow

User Interface: A simple menu driven interface & soft function keys for easy operation even by unskilled personal

Flow Rate Computation: Flow is recorded as average flow rate, total volume sampled and percentage coefficient of variation

Display: Switchable display to select parameter for Channel-1 or Channel-2 20 \times 4 LCD display showing parameters in real time.

- Flow rate (16.67) LPM
- Volumetric Flow
- Barometric Pressure
- Ambient Temperature
- Filter Temperature

Warning Flag Indicator: Warning Flag Indicators for certain conditions going out of specification

				<p>Data Transfer Options: Convenient in- field data transfer on a USB drive by an optional USB interface. Enables user to generate reports even while sampling at remote locations. Default option is RS-232 serial port</p> <p>ACCESSORIES OF FINE DUST SAMPLERS</p> <p>OPTIONAL ACCESSORIES</p> <ul style="list-style-type: none"> • SB Interface for remote data logging into PEN/USB drive.(Data Transfer Module) • Thermoelectric Gaseous Sampling Attachment IPM 117 <p>OPERATIONAL SPARES FOR PM 2.5</p> <ul style="list-style-type: none"> • Filter Carrier with Cover • Attachment for Measurement of TSPM Silicon Oil for WINS impactor (100ml) • Delrin Filter Cassette • Carry Bag for Sampler and its Accessories • Extra Set of Impingers (35ml. capacity) Pack of 4 • Compatible Batteries for operation (3 No) <p>WHATMAN BRAND FILTER PAPER</p> <ul style="list-style-type: none"> • GFA – 37mm (Pack of 100 Papers) • GFA – 47mm (Pack of 100 Papers) • PTFE (Pack of 50 Papers)
4	Water Analyzer	Unit	1	<p>Potable Automatic Water Quality Multi parameter meter (Individual probes or composite Multiprobe): capable of measuring: pH, Temperature, ORP, Conductivity, TDS, Salinity, DO, BOD, Na, Cl, Ammonium, Nitrate</p> <p>SPECIFICATIONS</p> <p>Internal Data Storage: 500 (<i>Expanded storage with external USB storage device</i>)</p> <p>Resolution: 0.1/ 0.01/ 0.001</p> <p>Interface Language: English</p> <p>Bench top: with stand</p> <p>PC Data Transfer Software, AC and USB Operation</p> <p>User-defined custom buffer sets, Barometric Pressure Measurement: For automatic compensation of DO, Battery Requirements: 4, AA, Benchtop: with stand BOD5/CBOD resolution, Cable resistance correction: Digital Calibration Curves Display: Calibration summary data Calibration Intervals/Alerts/Reminder: 2 hours to 7 days Custom Calibration Standards: User-defined standard sets</p>

				<p>Data Export: Download via USB connection to PC or flash stick. Automatically transfer of entire data log or as readings are taken. Data Memory: 500 results Automatic store in "press to read" mode and interval measurement modes. Manually store in "continuous read" mode. Display: Display readings from one or two probes Simultaneous readings from two probes</p> <ol style="list-style-type: none"> i. pH with following minimum specifications (Range: 2 - 14 pH, Resolution: at least 0.01 pH, Accuracy: ± 0.02 pH); ii. Temperature with following minimum specifications(-5° C to 50° C); iii. ORP with following minimum specifications (Range: -1999 to + 1999 mV, Accuracy: ± 20 mV in redox standards); iv. Conductivity with following minimum specifications (Range: Cond.: 0.01 μS/cm - 200 mS/cm, Resolution: EC: 0.01 μS/cm, v. TDS: 0 - 50000 mg/L as NaCl, vi. Salinity: 0 - 42 g/kg or % , Resist.: 2.5 Ωcm - 49 MΩcm vii. DO with following minimum specifications (: 0.05 - 50.00 mg/L, Resolution: 0.01 mg/L, Accuracy: 0.00 to 30.00 mg/L: $\pm 1.5\%$ of reading or 0.10 mg/L whichever is greater), viii. BOD with following minimum specifications (Dissolved Oxygen: 0.05 - 20.00 mg/L O₂ %, Saturation: 1 to 200 %, Temperature Range: 0 to 50 °C, Accuracy: ± 0.05 from 0 to 10 mg/L); ix. Na(with following minimum specifications (0.023 - 23,000 mg/L Na⁺, 0 - 50 °C, Accuracy: $\pm 15\%$ of reading or 5 mg/L, whichever is greater), x. Cl with following minimum specifications (0.1 mg/L (3x10⁻⁶ M) - 35,500 mg/L (1 M), 5 - 50 °C - Accuracy: $\pm 15\%$ of reading or 5 mg/L, whichever is greater); xi. Ammonium range: 0.07 mg/L (5x10⁻⁶ M) - 7,000 mg/L (0.5 M) NH₄⁺-N, 5 - 50 °C, Accuracy: $\pm 10\%$ of reading or 2 mg/L-N, whichever is greater; xii. Nitrate range: 0.1 mg/L (7x10⁻⁶ M) - 14,000 mg/L (1 M) NO₃⁻-N ,5 - 50 °C; Accuracy: $\pm 10\%$ of reading or 2 mg/L-N, whichever is greater)
5	Power Generator	Unit	1	<p>15 KVA, 2 cylinder, 1500 rpm rated speed, 3 phase, 20.9rated Current(AMP) Capacity @ 0.8PF , water cooled single door, fuel capacity 85 liters, Fuel type Diesel Installation: Concrete Base, Brick work, Canopy, Wiring and control system up to Lab</p>
6	Display for	Unit	1	LED/Smart TV

	Projector		<p>Screen Size 55 in/139 cm, Resolution Ultra HD: 3840 x 2160, IPS PanelPMI 1400, Micro Pixel Control(Local Dimming), Digital TV Reception: Terrestrial DVB-T2; Picture Mode 9 modes : (Vivid, Photo, Standard, Eco, Cinema, Game, Aspect Ratio 8 modes:(16:9, Just scan, Original, Full Wide, 4:3, 14:9,Cinema Zoom 1, Zoom)</p> <p>Audio Output (rms):20W, Surround Sound :Ultra Surround, Sound Mode :6 modes(Standard, News, Music, Cinema, Cricket, Game), Sound Optimizer :3 modes (Off, Stand Type,Wall-mounted Type)</p> <p>Smart TV powered by webOS, Smart TV Platform webOS 2.0, Wi-Fi (Built IN/Optional) with Built IN, WiFi Direct, Magic Remote Built IN</p> <p>Magic Remote Modes 4 modes (Universal Control, Point, Wheel, Voice)Voice recognition Magic Remote Only)</p> <p>Voice recognition – Language English, Full Web Browser with Photo Editor</p>
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