

भाकृअनुप - केन्द्रीय बारानी कृषि अनुसन्धान संस्थान





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NOTICE INVITING TENDERS

F.No. 2-1/(11)/2017ST

Dated 05th October 2017

Tender Enquiry for Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" under Two bid system.

ICAR- CRIDA is a premier public funded Research Institute on Dryland Agriculture, Indian Council of Agricultural Research (ICAR), Ministry of Agriculture Farmers Welfare Government of India. The Director, CRIDA Santoshnagar, Hyderabad – 500 059, Telangana India, now Invites sealed tenders for **Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India"**, in two bid system (technical bid and financial bid) from the eligible bidders/reputed manufacturers/ authorized dealers/suppliers.

GENERAL TERMS & CONDITIONS

- 1 Download of Tender Document: Tender Document with full details can be downloaded from CRIDA Website (http://www.crida.in) or the Government of India, Central Public Procurement Portal (http://www.eprocure.gov.in) and in such cases, participation in the tender will be subject to remittance of the prescribed BID SECURITY along with the Technical Bids.
- 2 A Pre-bid meeting is Scheduled at 14:30hrs on 17-10-2017 with regard to the tender document and Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India".
- 3 Bid Security: Bid Security (also known as Earnest Money) is to be deposited by all the bidders except Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department. The bidders should furnish bid security of Rs. 1,00,000/- (Rupees One Lakh only) along with their bids. The bid security will be accepted in the form of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form. The bid security is normally to remain valid for a period of forty-five days beyond the final bid validity period. Bid securities of the unsuccessful bidders shall be returned.

Description of Item	Tender cost Rs.	BID
· ·		SECURIT
(Please see specifications at page Nos.7-9)		Y (Rs.)
Supply, Transportation, Installation and commissioning of various	Free if downloaded	
sensors/parts for "Automatic Weather Stations at respective	from website	1,00,000/-
locations in India" under Two bid system.		

4. Technical Bid & Financial Bid: The bidders should submit the bids consists of all technical specifications/details as well as item wise financial cost for the items quoted along with commercial terms and conditions. The original copy of tender should be sent to this Office in a sealed cover in a double envelope. The inner envelope should also be sealed. The outer cover should be super scribed Tender for Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India". The

tenderer must place the two sealed envelopes clearly marked 'TECHNICAL BID' and 'FINANCIAL BID' by indicating the Draft number, date & amount of BID SECURITY on the envelop of 'TECHNICAL BID', failing which the tender will not be opened. Financial Bid to indicate a warning "DO NOT OPEN WITH THE TECHNICAL BID".

5 Performance Security: The successful bidder is required to pay an amount equal to 10% of successful bid amount towards performance security deposit and the same will be released within one month from the date of expiry all contractual Obligations. No interest shall be paid on such Performance security deposit. Performance Security should remain valid for a period of sixty days beyond the date of completion of all contractual obligations. The Performance Security Deposit should be in the form of Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form and on which no interest will be paid.

6 Important Dates:

1.	Start date of down loading the Tender Document	05-10-2017	11:00hrs
2.	Pre-bid meeting	17-10-2017	14:30 hrs
3.	Last date for down loading of Tender Document or any addendum / corrigendum	31-10-2017	11:00hrs
4.	Last date and time for submission of Tenders	31-10-2017	12:30 hrs
5.	Date and Time for opening of Technical Bids	31-10-2017	15:00 hrs

- Submission: Tender with proper superscription on the cover as for Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" should be submitted in the Office of the Director, CRIDA, Santoshnagar Hyderabad 500 059, Telangana, on or before the due date and time as given in the tender document.
- 7 **Due Date**: Tenders received after due date and time will not be considered. The Institute will not be responsible for courier/postal delays.
- 8 Delivery Schedule: Unless otherwise specified, Supply, Transportation, Installation and commissioning of various sensors, parts for Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" should be within 30 days from the date of issue of the Purchase Order. No 'part supply' is allowed. Specific mention should be made as to whether delivery will be from ready stock or will have to be imported / acquired and in the latter case the time required for delivery after purchase order is placed should be indicated clearly.
- **9 Note**: The Envelope containing the tender, as well as all subsequent Communications should be addressed/delivered to:

The Director

Central Research Institute for Dryland Agriculture

Santoshnagar, Saidabad Hyderabad - 500 059, Telangana, India

- 10 All communications must be addressed to the above Officer by designation but not by name.
- 11 Payment: No advance payment is permissible. Payment will be made only after Supply, Installation, Transportation and commissioning of various sensors, parts for Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" of the spares work functioning is accepted by the indenter/ technical committee after successful functioning of the facility.
- **12 Place of Delivery / Installation**: Supply, Transportation, Installation & Commissioning is to be done at different locations as per the list enclosed in schedule of requirements, the concerned Officer Incharge name and contact details will also be communicated along with order.

- **13 Certification**: The spares to be supplied, installed and commissioned shall have to be 100% compatible with the exists systems of AWS and certified with concerned certifying authorities of AWS OEM for Electrical Operation, safety and other included components if any.
- 14 Without the concerned technical details, compatibility of sensors, certification of parts, the bid received will not be accepted.
- **No part supply:** No part supply of material service is accepted. Bidding for only part of sensors supply/part of installation sties/ quote is considered as non qualified bid and summerly rejected.
- 16 Shipment: Supply is to be made securely packed at supplier's risk and transportation
- 17 Company turnover: At least thirty lakhs turnover per year is required. Document showing the firm/company's turnover per annum for the preceding two financial years i.e. 2015-16 & 2016-17 certified by the Chartered Accountant
- **18 Experience:** Minimum three experience in the AWS manufactures, supply, installation, commissioning & service experience in needed.
- **19 Bank details for e-payment**: The bank details may be furnished along with tender for making e-payment to the successful bidder.
- 20 ISO certification: The ISO certification of the product (wherever applicable) may be furnished along with tender.
- 21 Period of Validity: The rates quoted shall be valid for a minimum period of 180 days beyond the date of opening of tenders.
- 22 Rates: Rates should be quoted in the prescribed Price Schedule in Indian Rupees only.
- **23 Specifications:** The supplier has to submit the compliance statement on the technical specifications in the prescribed format enclosed to this schedule.
- 24 Liquidate Damage: if you are failed to Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" and all or any of the goods or to perform the services within the delivery period specified above, a sum equivalent to 0.5% of the contract price per week or part thereof off delay until actual delivery or performance shall be deducted from the bill up to a maximum deduction of 10% of the contract price. Once the maximum is reached, we may consider termination of the contract.
- 25 Indigenous items: Articles of indigenous origin are required except where specified otherwise. Where indigenous make is not available foreign made articles can be quoted for, provided, payment is acceptable in Indian currency.
- **26** Rate Contracts: In case of any of the item mentioned in the schedule are covered by Rate Contract of DGS & D etc. the rate contract number and date of validity may be specified invariably. Supply of copy of the Rate Contract is more helpful.
- 27 Income tax returns: Previous 3 financial years
- 28 Taxes/Duties: GST/ Taxes if any are all included only and should be specified clearly.
- 29 While submitting the tender document the brochures, catalogues etc. must be invariably enclosed with technical bid along original equipment part/parts certified by OEM for accepted in the location AWS will also be contracted.
- 30 Institute is exempted from payment of Customs charges Vide Govt.of India, Ministry of Science and Technology, Deptt.of Scientific and Industrial Research, vide Letter No.TU/V/RG-CDE(372)/2016, dated 18-10-2016 (Valid upto 31-08-2021).
- 31 Service Support and Warranty: The Warranty requirement for the equipment spares or sensors shall be for 12 months from the date of satisfactory testing for data receipt. In the event of the equipment requiring any rectifications, the warranty will start from the date of successful rectification.
- **32** To avoid the compatibility and functioning /data calibration issues with the existing AWS, it is required that the same make/model/performance of sensors need to be supplied.

- 33 Enquiry's on tender: Any enquiry's regarding the tenders will not be entertained once the tenders are opened.
- **34 Acceptance of tender**: Director, CRIDA reserves the right to accept or reject any of the tenders either in part or in full without assigning any reason thereof.
- **35 Quantities**: Director, CRIDA reserves the right to reduce or increase the quantity at the time of placing the Purchase Order.
- 36 The Technical Bids are to be opened by the institute tender Committee in the first instance and will be evaluated technically by the Institute Technical Advisory Committee (TAC). At the second stage Financial Bids will be opened only for the technically qualified tenders for further evaluation before awarding the contract.
- 37 Decision: The Decision of the Director, CRIDA on any dispute in the matter will be final and legally binding.
- 38 Jurisdiction: All disputes including court proceedings shall be settled within the Hyderabad jurisdiction only.
- 39 Rejection of tenders: Tenders not complying with the above conditions are liable to be rejected.
- 40 IMPORTANT NOTE: The bidder should submit the Technical & Financial bid including specifications/details along with item wise price mentioned in the Technical bid. The Technical bid must be accompanied with earnest money deposit in the form of Demand Draft. In any case the technical bid without Bid Security /Demand Draft will not be entertained. The bid should be sealed properly by the bidder and duly super scribed and submit to the above office at the date and time specified above.

41 Other conditions:

- a. Late submission of tenders & unsigned tenders shall not be entertained at any cost after specified date & time as indicated. The tenders without BID SECURITY amount will not be considered.
- b. In the event of the date & time specified for tender receipt being declared as a closed holiday for purchaser's office, the due date for submission of tenders will be the following working day at the specified timings. CRIDA does not hold any responsibility for postal delays.
- c. The Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India" at the locations specified as per supply order shall be transported to respective AWS site locations across India is at your cost.
- d. A certification is to be obtained from the Officer incharge of the concerned location of AWS, to that effect that sensors/parts of that AWS replaced and timely satisfactory data is attributed to the data sensor is of desired accuracy.
- e. The tender document should invariably be filled in and duly signed by the authorized signatory by affixing the company/firm seal on every page of tender and the terms and conditions should strictly be followed before submitting the tender.
- f. The bidders/representatives who are going to attend the technical bid/financial bid opening may invariably bring authorization letter issued by the respective company/ firm for the purpose.

Director, CRIDA reserves the right to accept or reject any or all the tenders. Decision of the Director will be final and legally binding. All disputes will be subject to Hyderabad Jurisdiction only.

(Stores & Purchase Officer)



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ICAR - Central Research Institute for Dryland Agriculture

संतोषनगर, सैदाबाद-पोस्ट हैदराबाद ५०००५९ Santoshnagar, Saidabad P.O. Hyderabad 500

059 040-24530161, 24530163, 24530224 Fax:040-24531802 www.crida.in Email: store.crida@icar.gov.in

CHECK LIST

Please give page numbers to the tender document and all enclosures and also verify the following documents before submission of the tender in the sequence listed below, to avoid rejection or disqualification of your tender.

PLEASE NOTE THAT ALL RELATED PHOTO COPIES MAY PLEASE BE ENCLOSED WITH THE TENDER DOCUMENT AS A PROOF

S.No.	List of the Documents to be enclosed with the Tender	Page No.	Enclosed (Yes/No)
1.	The tender document can also be downloaded with full details through CRIDA website		
	(http://www.crida.in) or the Government of India, Central Public Procurement Portal		
	(http://www.eprocure.gov.in) .		
2.	Bid Security: BID SECURITY should be drawn on any Commercial bank as indicated in the		
	notice inviting tenders in favour of "ICAR UNIT – CRIDA A/c"		
	BID SECURITY D.D.No Dated:for Rs.		
	; Bank Following documents as indicated in the tender document printed on the tenderer's letterhead		
3.			
	with date signature and seal.		
4	Tender Form		
5	Schedule of Requirement		
6	Annexure for site locations		
7	(a)Technical Bid		
	(b)Statement on Compliance of the Technical Specifications with compliance and technical		
	literature of the product to be enclosed by bidder.		
8	Financial Bid		
9	The entire original tender document with seal and signature on each page at the time of		
	submission of tender document(s) within the due date.		
10	Document showing the firm/company's turnover be Rupees Thirty Lakhs per annum for the		
	preceding two financial years i.e. 2015-16 & 2016-17 certified by the Chartered Accountant		
11	Attested copies of past three years in the related field of work		
12	Attested copies of Document regarding registration /Certificate of incorporation of the firm		
	issued by the appropriate government to be enclosed.		
13	Certificates of registration for GST issued by appropriate Government for the required		
	services with the seal of the tenderer to be enclosed.		
14	The firm should submit Income Tax returns of previous 3 financial years i.e., 2014-15, 2015-		
	16 & 2016-17 along with the tender document.		
15	NSIC/SSI certificates registered with NSIC (if applicable) to be enclosed		
16	Any other document or information as required in the tender document.		
	Total pages of your entire Tender Document (Technical Bid) including Enclosures	No.of Total Pa	ines :

Certified that the above information is correct and the firm is willing to accept all the terms and conditions of the tender document.

Signature and Seal of	the Bidder: _	 	
Business Address:		 	

4 TENDER FORM

(To be filled in by the Tenderer duly printed on their letter head)

render	er's Ref.No	Date:			
From:			Grams:		
			Phone No		
PIN			Fax No		
To					
The Di	rector				
Centra	I Research Institute	for Dryland Agriculture	,		
Santos	shnagar, Saidabad, I	HYDERABAD - 500 059			
Ref: Yo	our Tender Notice Adv	∕t. No	dated		
Dear S	ir,				
	I/We hereby offer for	r your requirements detail	ed in the schedu	ıle hereto or such	portion thereof as
you ma	ay specify in the Acc	eptance of Tender at the	rates given in	the said sched	ule and agree to
hold th	nis <u>offer for 180 day</u>	s for acceptance. I/We	shall be bound	by a communicat	ion of Acceptance
dispatc	hed within the prescri	ibed time and also execut	e agreement red	quired in this rega	rd.
2.	I/We have underst	ood the Instructions to	Tenderers and	d General Condi	tions of Contract
governi	ing such contracts pl	aced by Indian Council o	of Agricultural Re	esearch and its R	esearch Institutes
and the	e Special Conditions	of Contract, and have	thoroughly exa	mined the details	s indicated in the
Schedu	ule to Tender thereof	and am/are fully aware	of the goods ar	nd/or services red	quired and my/our
offer to	supply/provide the go	oods and/or services stric	tly is in accordar	nce with the requir	ements.
3.	D.D.No	Dtfor R	S	(in words) Ru	pees
		0	nly) drawn on	(Bank)	is
enclose	ed towards Earnest M	loney Deposit.			
The foll	lowing pages have be	een added to and form pa	rt of this tender.		
					Yours faithfully,
Signatu	ure of the Witness		Signa	ture:	
Name:			Nam	e:	
Addres	s:		Addre	ess:	

5. SCHEDULE OF REQUIREMENTS & FULL TECHNICAL SPECIFICATIONS WITH COMPLIANCE (Should be submitted duly printed on the letterhead of the bidder separately for each item and option)

TECHNICAL SPECIFICATIONS - Supply, Transportation, Installation and commissioning of various sensors/parts for "Automatic Weather Stations at respective locations in India"

	India"		
S.No	Name of the items	Qty	Existing Component
1)	AT/RH Sensors H-380 : Air Temperature & Relative	21	Make: Rotronics (mfd and
	Humidity Sensor	nos	supplied by water log)
	Air Temperature		Model:H-380
	Type: HydroClip2 Probe		
	Temperature Range: -50°C to 100°C		
	Accuracy: ± 0.5% @ -10 °C to 70 °C		Compliance :same make
	Resolution: 0.02% Typical		
	RELATIVE HUMIDITY		Data Compliance:
	RH Range: 0 – 100%		Refer. S.No.32
	Resolution:		
	Accuracy ± 0.5%		
2)	Rainfall Sensors H-340: Rainfall Sensor with Tipping	14	Make:Water Log
	Bucket	nos	Madalil 240
	Resolution: 0.01 in. (@ 4 in. / hr.)		Model:H-340
	Rate: 0 to 25 in. / hr.		Compliance :Same make
	Calibrated @ 8.237 mL / tip = 0.01 in rainfall,		
	Magnetic Reed Switch		Data Compliance: Refer.
	Type: Normally open encapsulated reed		S.No.32
	Rating: 200VDC max, 0.1A max,Contact Resistance: 0.2		
	ohms, Operating Temperature: -0 to +60 C		
3)	Solar Radiation Sensors SP-110: Solar Radiation	3	Make: APOGEE
	Sensor (Pyranometer)	Nos	
	Radiation Range: 0 - 1750 W/m ²		Model:SP-110
	Cosine Response @ 45° zenith angle: ± 1%		
	Cosine Response @ 75° zenith angle: ± 5%		Compliance :Same make
	Absolute Accuracy: ±5%		
	Repeatability: ± 1%		Data Compliance: Refer.
	Sensitivity: Custom calibrated to exactly 5.00 W m ⁻² / mV		S.No.32
	Responsivity: 0.20 mV per W m-2		
4)	Operating Environment: -25°C to 55°C, 0 to 100% RH		
4)	US wind Sensors RMYOUNG 85000 : Wind Speed and	16	Make: RM YOUNG
	Wind Direction Sensor	Nos	COMPANY
	WIND SPEED		Model: RM YOUNG 85000
	Range: 0-70 m/s (156 mph)		(ultrasonic
	Resolution: 0.1 m/s		ANEMOMETER)
	Accuracy: 0 to 30 m/s, ±2% or 0.1m/s 30 to 70 m/s, ±3%		Compliance : Same make
	WIND DIRECTION Pango: 0.360 dograps		Compliance . Same make
	Range: 0-360 degrees		
	Resolution: 1 degree Accuracy: ± 2 degrees		Data Compliance: Refer.
	SERIAL OUTPUT		S.No.32
	Type: RS-232, RS-485, SDI-12		
	Type: RS-232, RS-465, SDI-12 GENERAL		
	Output rate: 1 Hz typical (selectable)		
	, , , , , , , , , , , , , , , , , , , ,		
	Power Supply: 9 to 16 VDC, 150 mA max		

Annexure

6. List of locations where Spares required to be replace

		AWS Lo	cation		
S.NO	Location	AT-RH	WS	Solar Radiation	Rainfall
1	REDDIPALLI	√	√	√	√
2	YAGANTIPALLI	√	√	√	✓
3	GADDIPALLI	x	x	✓	x
4	AMADALAVALASA	x	✓	✓	✓
5	PEDAVEGI	x	x	✓	×
6	DIBRUGARH	x	✓	√	✓
7	GOLAGHAT	√	x	√	✓
8	MUZAFFARPUR	x	✓	√	✓
9	NAWADA	x	✓	✓	✓
10	MANJHI	√	✓	✓	√
11	MAHASAMUND	✓	√	✓	√
12	ANAND	×	×	✓	✓
13	GOLAGAMDI	√	√	✓	√
14	RAJKOT	√	√	✓	√
15	СНАМВА	x	√	✓	√
16	KANGRA	x	x	✓	√
17	BAJAURA	√	√	√	✓
18	SIRMAUR	✓	√	√	✓
19	POONCH	√	√	×	√
20	TUKKANATTI	x	√	→	√
21	CHINTAMANI	√	√	√	√
22	THRISSUR	x	√	×	√
23	CHHATARPUR	x	×	√	✓
24	BABHLESHWAR	√	✓	√	✓
25	NANDURBAR	√	√	√	✓
26	NIASM	√	×	√	×
27	BARAMATI	√	×	√	×
28	ANDRO	x	x	√	√
29	SENAPATI	√	√	√	√
30	PORBA	✓	√	✓	√
31	BEHRAMPUR	✓	√	✓	√
32	KENDRAPARA	x	×	✓	√
33	SONEPUR	✓	✓	✓	✓
34	FARIDKOT	✓	×	✓	✓
35	BHARATHPUR	x	×	✓	√
36	JHUNJHUNU	✓	×	√	√
37	JODHPUR	 	√	√	√
38	UDAYPUR	x	×	· · · · · · · · · · · · · · · · · · ·	

39	NAMAKKAL	√	√	√	√
40	RAMANATHAPURAM	√	√	√	√
41	CHEBRI	×	√	√	√
42	BAGHPAT	×	√	√	√
43	CHITRAKOOT	√	√	✓	√
44	UTTAR KASHI	√	√	√	√
45	COOCH BEHAR	×	√	√	√
46	AURANGABAD	√	x	√	√
47	GONDIA	√	√	×	√
48	VALSAD	√	√	√	√
49	BILASPUR	×	x	√	√
50	SATNA	√	√	√	√
51	GANJAM	×	√	√	√

Note:	Signature and Seal of the Bidder: _ Business Address:	

7(a) . Technical Bid

	1000 = 00000	
1	Name of the agency	
2	Full address with PIN Code No. And Telephone No	
3	Constitution of the Firm/Agency (Attached copy)	
	a) Indian Companies Act, 1956	
	b) Indian Partnership Act, 1932	
	(Please give names of partners)	
	c) Any other Act, if not, the owners	
4	i) For Partnership firms whether registered under the	
	Indian Partnership Act, 1932, please state further	
	whether by the partnership agreement to arbitration has	
	been conferred on the partner who has signed the	
	Tender.	
	ii) If answer to the above is in negative whether there is	
	any general power of attorney executed by all the	
	partners of the firm authorizing the partner who has	
	signed the Tenders to refer dispute condemning business	
	of the partnership to arbitration.	
	iii) If the answer to above is in point one and two is	
	affirmative please furnish a copy of either the partnership	
	agreement or the general power of attorney as the case	
	may be. The copy should be attested by a Notary Public	
	or its execution would be admitted by affidavit on a	
	properly stamped paper by all partner	
5	Name and Full Address of your Banker's	
6	Your Permanent Income Tax No./Circle/Ward	
7	Date of establishment of the agency/firm/company	
8	Any other relevant information	
9	Bid Security Deposited: (Write draft No./date/issuing bank	
	details)	
10	Document regarding registration /Certificate of incorporation of the firm issued by the appropriate government to be enclosed.	

11	Government for the re	ation for GST issued by appropriate equired services with the seal of the	
	tenderer to be enclos		
12		nit Income Tax returns of previous 2014-15 , 2015-16 & 2016-17 along	
	with the tender docum		
13	Name and Address	of the firm's representative and	
		Id be representing at the opening of	
	the Tenders		
14		nent Representative to be visiting	
14	CRIDA regarding the	·	
15			21 nos
15	Humidity Sensor) : Air Temperature & Relative	21 1105
	Air Temperature		
	•	e, Temperature Range: -50°C to	
		% @ -10 °C to 70°C, Resolution:	
		% @ -10 C to 70 C, Resolution:	
	0.02% Typical RELATIVE HUMIDITY		
		Resolution: Accuracy ± 0.5%,	
	Make:	Existing component	Component quoted by
	Wake.	Existing component	bidder
		Rotronics (mfd. and supplied by	bludei
		water log)	
	Model:	H-380	
	Compliance :	Same make	
	Standard:	Same make	
	Data Compliance :	Refer serial number 32	
	•		44
16	Bucket	340: Rainfall Sensor with Tipping	14 nos
10		② 4 in. / hr.), Rate: 0 to 25 in. / hr.,	
	1	nL / tip = 0.01 in rainfall, Magnetic	
		Normally open encapsulated reed,	
		0.1A max, Contact Resistance: 0.2	
	ohms, Operating Temp		
	Make:	Existing component	Component quoted by
	marc.	Existing component	bidder
		Water Log	- Diadoi
	Model:	H-340	
	Compliance :	Same make	
	Standard :	Same make	
	Data Compliance :	Refer serial number 32	
	Data Compnance .	Notor Serial Humber 32	

iance: ompliance: ompliance: od Sensors RMYO Direction Sensor SPEED 0-70 m/s (156 mp m/s, ±2% or 0.1m DIRECTION	750 W/m², Cosine Response @ 45° ine Response @ 75° zenith angle: ± ± 5%, Repeatability: ± 1% prated to exactly 5.00 W m⁻² / mV, er W m-2 -25°C to 55°C, 0 to 100% RH Existing component APOGEE SP-110 Same make Refer serial number 32 OUNG 85000: Wind Speed and (ultrasonic ANEMOMETER) ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3% Resolution: 1 degree, Accuracy: ± 2	Component quoted by bidder 16 Nos
iance: ord Sensors RMYC organization Sensor SPEED 0-70 m/s (156 mp m/s, ±2% or 0.1m DIRECTION 0-360 degrees, R	ine Response @ 75° zenith angle: ± ± 5%, Repeatability: ± 1% prated to exactly 5.00 W m ⁻² / mV, er W m-2 -25°C to 55°C, 0 to 100% RH Existing component APOGEE SP-110 Same make Refer serial number 32 OUNG 85000 : Wind Speed and (ultrasonic ANEMOMETER) ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	bidder
iance: ompliance: ompl	± 5%, Repeatability: ± 1% prated to exactly 5.00 W m ⁻² / mV, er W m-2 -25°C to 55°C, 0 to 100% RH Existing component APOGEE SP-110 Same make Refer serial number 32 OUNG 85000 : Wind Speed and (ultrasonic ANEMOMETER) ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	bidder
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ompliance: Ind Sensors RMYC Direction Sensor SPEED 0-70 m/s (156 mp m/s, ±2% or 0.1m DIRECTION 0-360 degrees, R	OUNG 85000 : Wind Speed and (ultrasonic ANEMOMETER) ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	16 Nos
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Direction Sensor SPEED 0-70 m/s (156 mp m/s, ±2% or 0.1m DIRECTION 0-360 degrees, R	(ultrasonic ANEMOMETER) ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	16 Nos
SPEED 0-70 m/s (156 mpm/s, ±2% or 0.1mm DIRECTION 0-360 degrees, R	ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	
SPEED 0-70 m/s (156 mpm/s, ±2% or 0.1mm DIRECTION 0-360 degrees, R	ph), Resolution: 0.1 m/s, Accuracy: n/s 30 to 70 m/s, ±3%	
m/s, ±2% or 0.1m DIRECTION 0-360 degrees, R	n/s 30 to 70 m/s, ±3%	
DIRECTION 0-360 degrees, R s		
0-360 degrees, R s	Resolution: 1 degree, Accuracy: ± 2	
S	Resolution: 1 degree, Accuracy: ± 2	
L OUTPUT		
RS-232, RS-485, S	SDI-12	
RAL		
rate: 1 Hz typical	(selectable),Power Supply: 9 to 16	
50 mA max		
	Existing component	Component quoted by
		bidder
	RM YOUNG COMPANY	
	RM YOUNG 85000 (ultrasonic	
-	ANEMOMETER)	
	Same make	
ompliance :	Refer serial number 32	
	iance : compliance :	RM YOUNG COMPANY RM YOUNG 85000 (ultrasonic ANEMOMETER) iance: Same make ard: compliance: Refer serial number 32

8. FINANCIAL BID

(To be enclosed in a separate envelope and sealed) (To be filled in by the Tenderer duly printed on their letter head)

Schedule	Description of the goods offered	No.of	Unit Rate	Amount
		units	(Rs.)	(Rs.)
Supply of	" Automatic Weather Station Sensors"			<u> </u>
1	AT/RH Sensors H-380 : Air Temperature &	21 nos		
	Relative Humidity Sensor			
	Air Temperature			
	Type: HydroClip2 Probe, Temperature Range: -			
	50°C to 100°C,Accuracy: ± 0.5% @ -10 °C to 70°C,			
	Resolution: 0.02% Typical			
	RELATIVE HUMIDITY			
	RH Range: 0 – 100%, Resolution: Accuracy ±			
	0.5%,			
2	Rainfall Sensors H-340: Rainfall Sensor with	14 Nos		
	Tipping Bucket			
	Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. /			
	hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall,			
	Magnetic Reed Switch, Type: Normally open			
	encapsulated reed, Rating: 200VDC max, 0.1A			
	max, Contact Resistance: 0.2 ohms, Operating			
	Temperature: -0 to +60 C			
3	Solar Radiation Sensors SP-110: Solar Radiation	3 Nos		
	Sensor (Pyranometer)			
	Radiation Range: 0 - 1750 W/m ² , Cosine Response			
	@ 45° zenith angle: ± 1%, Cosine Response @ 75°			
	zenith angle: ± 5%, Absolute Accuracy: ± 5%,			
	Repeatability: ± 1%			
	Sensitivity: Custom calibrated to exactly 5.00 W m ⁻²			
	/ mV, Responsivity: 0.20 mV per W m-2			
	Operating Environment: -25°C to 55°C, 0 to 100%			
	RH			
4	US wind Sensors RMYOUNG 85000 : Wind	16 Nos		
	Speed and Wind Direction Sensor (ultrasonic			
	ANEMOMETER)			
	WIND SPEED			
	Range: 0-70 m/s (156 mph), Resolution: 0.1 m/s,			
	Accuracy: 0 to 30 m/s, ±2% or 0.1m/s 30 to 70 m/s,			
	±3%			
	WIND DIRECTION			

		I	1	1
	Range: 0-360 degrees, Resolution: 1 degree,			
	Accuracy: ± 2 degrees			
	SERIAL OUTPUT			
	Type: RS-232, RS-485, SDI-12			
	GENERAL			
	Output rate: 1 Hz typical (selectable),Power Supply:			
	9 to 16 VDC, 150 mA max			
Transpor	tation of " Automatic Weather Station Sensors	"	•	•
1	AT/RH Sensors H-380 : Air Temperature &	21 nos		
	Relative Humidity Sensor			
	Air Temperature			
	Type: HydroClip2 Probe, Temperature Range: -			
	50°C to 100°C,Accuracy: ± 0.5% @ -10 °C to 70°C,			
	Resolution: 0.02% Typical			
	RELATIVE HUMIDITY			
	RH Range: 0 – 100%, Resolution: Accuracy ±			
	0.5%,			
2	Rainfall Sensors H-340: Rainfall Sensor with	14 Nos		
	Tipping Bucket			
	Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. /			
	hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall,			
	Magnetic Reed Switch, Type: Normally open			
	encapsulated reed, Rating: 200VDC max, 0.1A			
	max, Contact Resistance: 0.2 ohms, Operating			
	Temperature: -0 to +60 C			
3	Solar Radiation Sensors SP-110: Solar Radiation	3 Nos		
	Sensor (Pyranometer)			
	Radiation Range: 0 - 1750 W/m ² , Cosine Response			
	@ 45° zenith angle: ± 1%, Cosine Response @ 75°			
	zenith angle: ± 5%, Absolute Accuracy: ± 5%,			
	Repeatability: ± 1%			
	Sensitivity: Custom calibrated to exactly 5.00 W m ⁻²			
	/ mV, Responsivity: 0.20 mV per W m-2			
	Operating Environment: -25°C to 55°C, 0 to 100%			
	RH			
4	US wind Sensors RMYOUNG 85000 : Wind	16 Nos		
	Speed and Wind Direction Sensor			
	WIND SPEED			
	Range: 0-70 m/s (156 mph), Resolution: 0.1 m/s,			
	Accuracy: 0 to 30 m/s, ±2% or 0.1m/s 30 to 70 m/s,			
	±3%			

	WIND DIRECTION			
	Range: 0-360 degrees, Resolution: 1 degree,			
	Accuracy: ± 2 degrees			
	SERIAL OUTPUT			
	Type: RS-232, RS-485, SDI-12			
	GENERAL			
	Output rate: 1 Hz typical (selectable),Power Supply:			
	9 to 16 VDC, 150 mA max			
Installati	ion and Commissioning of " Automatic Wea	ther Stat	ion Sensors	7
1	AT/RH Sensors H-380 : Air Temperature &	21 nos		
	Relative Humidity Sensor			
	Air Temperature			
	Type: HydroClip2 Probe, Temperature Range: -			
	50°C to 100°C,Accuracy: ± 0.5% @ -10 °C to 70°C,			
	Resolution: 0.02% Typical			
	RELATIVE HUMIDITY			
	RH Range: 0 – 100%, Resolution: Accuracy ±			
	0.5%,			
2	Rainfall Sensors H-340: Rainfall Sensor with	14 Nos		
	Tipping Bucket			
	Resolution: 0.01 in. (@ 4 in. / hr.), Rate: 0 to 25 in. /			
	hr., Calibrated @ 8.237 mL / tip = 0.01 in rainfall,			
	Magnetic Reed Switch, Type: Normally open			
	encapsulated reed, Rating: 200VDC max, 0.1A			
	max, Contact Resistance: 0.2 ohms, Operating			
	Temperature: -0 to +60 C			
3	Solar Radiation Sensors SP-110: Solar Radiation	3 Nos		
	Sensor (Pyranometer)			
	Radiation Range: 0 - 1750 W/m ² , Cosine Response			
	@ 45° zenith angle: ± 1%, Cosine Response @ 75°			
	zenith angle: ± 5%, Absolute Accuracy: ± 5%,			
	Repeatability: ± 1%			
	Sensitivity: Custom calibrated to exactly 5.00 W m ⁻²			
	/ mV, Responsivity: 0.20 mV per W m-2			
	Operating Environment: -25°C to 55°C, 0 to 100%			
	RH			
4	US wind Sensors RMYOUNG 85000 : Wind	16 Nos		
	Speed and Wind Direction Sensor			
	WIND SPEED			
	Range: 0-70 m/s (156 mph), Resolution: 0.1 m/s,			
	Accuracy: 0 to 30 m/s, ±2% or 0.1m/s 30 to 70 m/s,			

	±3%				
	WIND DIRECTION				
	Range: 0-360 degrees, Resolution: 1 degree,				
	Accuracy: ± 2 degrees				
	SERIAL OUTPUT				
	Type: RS-232, RS-485, SDI-12				
	GENERAL				
	Output rate: 1 Hz typical (selectable),Power Supply:				
	9 to 16 VDC, 150 mA max				
	Applicable Taxes				
a.	Customs Duty, if any	%			
b.	GST	%			
		Grand Total			
	(Shall be submitted by bidder on their	letter head)			
Gross total cost: Rs (in figures) Rupees (in words) We agree to supply, Transportation, Installation & Commissioning of the above "Automatic Weather Station Sensors" in accordance with the technical specifications for a total contract price of Rs					
We also confirm that the warranty as specified in the Schedule of Requirements / Technical Specifications shall apply to the offered goods / equipment.					
	Sig	nature:			
	N	ame:			
	D	ate:			