## Centre for Environment Science and Climate Resilient Agriculture Indian Agricultural Research Institute New Delhi – 110012

F.No: 4-4/24-249/DST/CESCRA/12-13

Dated: 20-02-13

As per list attached

Subject: Quotation for purchase of Automatic Weather Station (AWS), 2 Nos.

Sir,

The quotations should reach this office by not later than 3p.m hrs on 13.03.13. The cover containing quotations should be superscribed as 1)"Quotations for purchase of **Automatic Weather Station (AWS), 2 Nos in CESCRA**, IARI due on 13.03.13 failing which the quotation will have the risk of not being considered.

The quotations will be opened at 3p.m on the same day i.e. 13.03.13. Quotations should satisfy the following conditions:

- 1) The rates quoted shall be valid for a minimum period of 180 days from the last date fixed for the receipt of quotations.
- 2) The rates quoted shall be for free delivery and installation at the Division/Unit CESCRA, IARI, New Delhi-110012. However, equipment quoted in foreign currency must be quoted on FOB basis.
- 3) Full specifications of the article quoted for shall be given in the quotation along with literature/pamphlet/drawing etc. User list of quoted document may also be additionally provided for reference.
- 4) If taxes, duties or any other charges over and above the rates quoted leviable, actual percentage of such taxes/duties/other charges should be clearly indicated, in the absence of which, it would be presumed that all taxes are inclusive and would be calculated accordingly. No further clarification/request in this regard would be considered.
- 5) Supply is to be made by any convenient mode of transport at supplier's risk unless otherwise specified.
- 6) In case the material is supplied through an authorized agent, manufacturer shall be responsible for the successful installation of the equipment. The manufacturer shall be liable to any penal action for the shortcomings of the authorized agent. Any payment that is to be made separately to the agent if any shall be clearly mentioned in the quotation.

- 7) The bid should be accompanied with earnest money of Rs. 12000/- crossed Demand Draft/Pay Order in favour of Director, IARI, payable at New Delhi on any Nationalized Bank, without which the quotation will not be entertained. No other form of deposit will be accepted. There will be no exemption for paying earnest money. However, Firms registered with the Central Purchase Organization/NSIC only are exempt from submitting bids without EMD (proof of registration must be attached therefore without which it will not be considered). In case, therefore, if any tenderer fails to deposit the Earnest Money, the tender will be rejected straightaway.
- 8) The EMD shall be refunded to the unsuccessful bidders after finalization of the quotation. In case of successful bidder, it can be adjusted towards security deposit which is 10% of the order value for the equipments/goods costing Rs. 1 lac or more. A performance security of Rs. 30,000 will have to be deposited by the successful bidder.
- 9) One year warranty has to be invariable provided by the firm.
- 10) Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills triplicate. In case of foreign currency, payment shall be generally made through LC directly to the manufacturer.
- 11) The Director, IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or parts without assigning any reason.
- 12) Enquiries about the rate of quotations will not be entertained.
- 13) Quotations not complying with the above conditions are liable to be rejected.
- 14) **Sealed quotations separately in each case** should be put in the "Quotation Box" of the Centre for Environment Science and Climate Resilient Agriculture (CESCRA), IARI, New Delhi-110012 in separate envelopes.
- 15) TIN/VAT/PAN/C.S.T Nos may be given on the quotation.
- 16) In case of equipment technical and financial bids are to be prepared and placed on sealed envelopes. The envelopes should then be placed in one single envelope and submitted.
- 17) <u>Technical and Financial bid may please be put in separate envelopes superscribed</u> suitably as 'Technical Bid' & 'Financial Bid'.

Specification of the item is attached.

Asstt. Admin Officer

## CESCRA IARI, New Delhi -110012 DST Project Code:

## Technical specification for automatic weather station

Item	Quantity	Specification
Automatic	2	Sensor: Each AWS will have following sensors.
weather station		Air Temperature range -10 °C to + 60 °C, Resolution : 0.1 deg C,(
(AWS)		Accuracy : +/- 0.2 deg C)
		<b>Relative Humidity</b> : 0 to 100%, Resolution : 0.1% (accuracy +/- 3 %)
		response time <15 sec
		<b>Precipitation</b> : Tipping bucket 0 to 50 mm/hr with collecting area of
		atleast 300 sq. cm, 0.5 mm resolution (accuracy 1 of rainfall);
		<b>Solar Radiation</b> : range 0-1800 W/m <sup>2</sup> ; Sensitivity: 90 μA per 1000 W m-
		2,Linearity: 1% up to 3000 W m-2,Stability: < ± 2% change over a 1 year
		period, Response Time: 10 μs, Temperature Dependence: 0.15% per
		°C,Cosine Correction: Cosine corrected up to 80° angle of
		incidence. Azimuth: $<\pm 1\%$ error over 360° at 45° elevation.
		Wind speed 0 to 100 Km/hr (accuracy+/- 0.5 m/sec) based on the
		principle of Three cup Anemometer with Optical Sensing
		Wind direction based on the principle of potentiometry, range 0 to 360
		degrees with 1 degree resolution (accuracy: +/-3 degrees) with SS shaft
		• Data transmission interval: 1 minute to 1 hour (selectable). Power
		supply through rechargeable batteries charged by solar panels and with
		a mains power based charger.
		• Data loggers: Each AWS will have data logger with Forty five days
		storage of all parameters in non-volatile flash memory.512 KB or more
		RAM with sufficient number of analogue channel for all sensors. Two
		or more lines LCD display, programmable, USB/RS-232
		communication, Built-in battery backed Real time clock to ensures data synchronization with real-time in case of prolonged power failure.
		Windows compatible, software for data download to a PC and analysis.
		Direct cable connection to RS232 / USB ports. Analysis tools to export
		to MS Excel, Graphs, monthly averages & Windros Diagrams.
		• Built-in AVR, SMF Batteries, Input voltage range: 160 – 270 Volts,
		Output voltage: 220 +/- 5% Volts, Line noise/spike protection, Overload
		protection, Battery over discharge protection, LED/LCD Indicators
		overload, Audio Alarms, User manual., Spare set of batteries, 3 years'
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		comprehensive onsite warranty.