



Division Of Agricultural Engineering
ICAR-INDIAN AGRICULTURAL RESEARCH INSTITUTE
NEW DELHI-110012



F.No. 216/project code(24-682)/2020-21/AE

Dated: 01-12-2020

Subject: On-line Tender “Sensors for temperature, humidity. dust, display unit and controller and motor, aspirator with accessories”- IARI

Sir,

Online bids are invited in two bid system (i) Technical bid (ii) Financial bid on behalf of Secretary, ICAR, New Delhi from eligible bidder for purchase of **Sensors for temperature, humidity. dust, display unit and controller and motor, aspirator with accessories**. The submission of bids for above equipment through online is **21-12-2020** upto 1300 hours. The bid will be opened on **22-12-2020** at 1500 hours.

Instructions to the bidder and terms & conditions of tender:

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 ICAR-IARI, New Delhi - 110 012. **However, item/equipment quoted in foreign currency must be quoted on FOB basis and showing price upto CIF.**
3. Custom Duty Exemption Certificate (CDEC) will be issued only when the bid is quoted in foreign currency in case of foreign made items only and meant for IARI.
4. In case the bid is offered in Indian Rupees on FOR value basis than CDEC/DSIR certificate will not be given by the Institute at all. However, VAT as applicable will be paid by the Institute as per rule.
5. The successful bidder will have to provide the original proforma invoice from the foreign principal (duly signed in ink), in case of imported item/equipment at the earliest but positively within 15 days of the date of receipt of purchase order, otherwise the purchase order will automatically stand cancelled without any further communication.
6. Full specifications of the article quoted for shall be given in the quotation along with literature/pamphlet/drawing etc. User list of the quoted document may also be additionally provided for reference.
7. 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.
8. If the bid is submitted by the authorized dealer on behalf of the Manufacturer/OEM, then valid authorization certificate of the Manufacturer/OEM must be attached with the bid, otherwise bid will not be considered.
9. As per CVC's guidelines No.12-02-6CTE-SPJ(1)-2/161730 (circular No.3/1/12) dated 13/1/2012, in a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender. Further, if an agent submits bid on behalf of the Principal/OEM the same

agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

10. Supply is to be made by any convenient mode of transport at supplier's risk unless otherwise specified.
11. 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.
12. The bid should be accompanied with earnest money of **Rs. 12,000/- (Rs. Twelve Thousand only)** in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi as mentioned against each of the item/equipment together with the technical bid, in the absence of which the price bid, if any, will not be opened under any circumstances.
13. No interest on security deposit and earnest money deposit shall be paid by the Institute to tenderer.
14. 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 5-10% of the order value in the form of D.D./Pay Order/Fixed Deposit Receipt/Bank Guarantee from commercial bank drawn in favour of Director, IARI payable at New Delhi and shall remain valid for 60 days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs.1.00 lakhs (Rs. One Lakh) or more. Here would however, be no performance security deposit for equipment/goods costing less than Rs. 1.00 lakh (Rs. One Lakh).
15. **One year warranty has to be invariable provided by the firm. In case, there is any variation in the warranty period given in the specification of the item/equipment, the warranty period shall be the final as given in the specification.**
16. 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 generally be made through LC directly to the manufacturer.
17. The Director IARI, New Delhi reserves the right to accept or reject any or all the quotations either in full or in parts without assigning any reason.
18. **Quotations not complying with the above conditions are liable to be rejected.**
19. Scanned copy of GST/PAN Nos may be upload online tender.
20. AMC/CMC charges shall not be included for the evaluation of the financial/commercial bids.
21. In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser)
22. The successful bidder has to execute the indented material/items as mentioned in the supply order placed with them within the stipulated period as given in the supply order placed by the Unit/Divisions of this Institute failing which 2% per week and maximum of 10% deduction as liquidated damage charges will be made from the bill in case the material is not supplied within the given stipulated period.

The following documents must be seen before apply

1. Scanned copy of GST.
2. Scanned copy of PAN Card.
3. Scanned copy of Earnest Money Deposit (EMD)
4. The tender documents duly signed by the concerned firm accepting the same should be attach with technical bid.

Sl. No. Description/ Specification of the Item

Qty

SPECIFICATION FOR THE:-Sensors for temperature, humidity, dust, display unit and controller and motor, aspirator with accessories(one each)

Dust sensor

Dust Aerosol Concentration: 1 to 100 mg/m³

Particle Size: 0.1 to 10 µm with dust measurement for PM_{1.0}, PM_{2.5}, PM_{5.0} PM₁₀ around the operator

Minimum Resolution 0.001 mg/m³

Flow Rate: 0 to 1.8 liters/min (L/min)

Software: Windows compatible

Display: LED

Power source: battery- 5400 mAH Li-Ion or similar

Sensor for dehydration status measurement

Measurement Range Urine S.G: 1.000 to 1.060

Resolution: Urine S.G. 0.001

Accuracy: Urine S.G. + 0.001

Temperature: 10 to 35° C with in- built-in Automatic Temperature Compensation (ATC)

Sensor for measuring heart rate

Working duration: continuous upto 8 hours

GPS accuracy: Distance ±2%

Watch Accuracy: Better than ± 0.5 seconds

Heart rate: 15-240 bpm

Water resistance

Memory capacity: 60 h training with GPS

Battery type: 240 mAh Li-pol rechargeable battery

Sample rate: 1 s in high accuracy GPS recording, 30 s in medium accuracy GPS recording, 60 s in GPS power save mode

Connectivity: Bluetooth enables

Sensor for measuring environmental parameters

(i) Environment meter with following specifications

Specification	Parameters				
	Sound	Lux	Airflow	Humidity	Temperature
Range	35 to 130dB	0 to 200,000Lux	0.5 to 30m/s	10% to 95%RH	-40° to +70°C
Resolution	0.1dB	0.01 Lux	0.1m/s	0.1%RH	0.1°C
Accuracy	±2dB	±5%FS	±0.3m/s	±5%RH	±2°C
Power source	Battery				

(ii) Weather station

Humidity: Range: 1 to 100%RH, Accuracy: ±2%

Barometric Pressure (mm Hg): Range: 410 to 820 Accuracy: ±0.8, Resolution: 0.1

Wind Speed (km/h): Range- 0 to 300 , Resolution:- 1 km/h, Accuracy: ± 3

Wind direction: Range: 1-360° , Accuracy: ±3°

Inside Temperature (sensor located in console): Range:0° to +60°C, Accuracy: ±0.5°C

Outside Temperature (sensor located in ISS): Range -40° to +65°C, Accuracy: ±0.5°C

Solar Radiation: Range: 0 to 1800 W/m² Accuracy: ±5% of full scale

Solar Power Panel equipped with battery

Battery Life: 8 months without sunlight

Communication: Wireless

(iii) Sensor for wind movement around operator

Velocity: Range: 0.1 to 10 m/s

Accuracy: ±1.0% of reading

Data Storage Capabilities: >5,000 samples

Logging Interval: 1 second to 1 hour

Asstt. Admn. Officer (AE)

Compliance report

Sl No	Equipment	Specification		Yes /No	Mention Make & Model of the equipment	
1	Sensors for temperature, humidity, dust, display unit and controller and motor, aspirator with accessories	Dust sensor	Dust Aerosol Concentration: 1 to 100 mg/m ³			
			Particle Size: 0.1 to 10 µm with dust measurement for PM _{1.0} , PM _{2.5} , PM _{5.0} PM ₁₀ around the operator			
			Minimum Resolution 0.001 mg/m ³			
			Flow Rate: 0 to 1.8 liters/min (L/min)			
			Software: Windows compatible			
			Display: LED			
		Sensor for dehydration status measurement	Measurement Range Urine S.G: 1.000 to 1.060			
			Resolution: Urine S.G. 0.001			
			Accuracy: Urine S.G. + 0.001			
			Temperature: 10 to 35° C with in-built-in Automatic Temperature Compensation (ATC)			
		Sensor for measuring heart rate	Working time: continuous upto 8 h			
			GPS accuracy: Distance ±2%			
			Watch Accuracy: Better than ± 0.5 s			
			Heart rate: 15-240 bpm			
			Water resistance			
			Memory capacity: 60 h training with GPS			
			Battery type: 240 mAh Li-pol rechargeable battery			
			Sample rate: 1 s in high accuracy GPS recording, 30 s in medium accuracy GPS recording, 60 s in GPS power save mode			
		Sensor for measuring environmental parameters	i. Environment meter	Sound 35 to 130dB(±2dB)		
				Lux 0 to 200,000Lux±5%FS)		
				Airflow 0.5 to 30m/s 0.3m/s)		
				RH 10% to 95%RH(±5%RH)		
				Temp -40° to +70°C(+2°C)		
			ii. Weather station	RH: 1 to 100%RH, Accuracy: ±2%		
				Barometric Pressure (mm Hg): Range: 410 to 820 Accuracy: ±0.8, Resolution: 0.1		

			Wind Speed (km/h): Range- 0 to 300 , Resolution:- 1 km/h, Accuracy: ± 3		
			Wind direction: Range: 1-360° , Accuracy: $\pm 3^\circ$		
			Inside Temperature (sensor located in console): Range:0° to +60°C, Accuracy: $\pm 0.5^\circ\text{C}$		
			Outside Temperature (sensor located in ISS): Range -40° to +65°C, Accuracy: $\pm 0.5^\circ\text{C}$		

			Solar Radiation: Range: 0 to 1800 W/m ² Accuracy: $\pm 5\%$ of full scale		
			Solar Power Panel equipped with battery		
			Battery Life: 8 months without sunlight		
			Communication: Wireless		
		iii. Sensor for wind movement around operator	Velocity: Range: 0.1 to 10 m/s($\pm 1.0\%$ of reading)		
			Accuracy: $\pm 1.0\%$ of reading		
			Data Storage Capabilities: >5,000 samples		
			Logging Interval: 1 second to 1 hour		