



**Division of Agricultural Engineering
ICAR-Indian Agricultural Research Institute,
New Delhi-110012**



F.No. No.2022-23/DST(28-08)/AE/270

Dated: 06/10/2022

Subject: On-line tender for “Remote Monitoring circuits with indoor & outdoor Air temperature-RH sensor, solar radiation, Ac voltage sensor”.

Sir,

Online bids are invited in two bid system (i) Technical bid (ii) Financial bid on behalf of Direct, IARI, New Delhi from eligible bidder for “**Remote Monitoring circuits with indoor & outdoor Air temperature-RH sensor, Solar radiation, Ac voltage sensor**”. The last date for submission for above bid through online is **27th October 2022** up to 1500 hours. The bid will be opened on **28th October, 2022** at 1500 hours. **Pre-bid conference for any clarification will be held on 14th October, 2022 at 2.30 PM in Division of Agricultural Engineering IARI, New Delhi.**

Schedule of tender

Name of Organisationसंस्थान का नाम	ICAR-Indian Agricultural Research Institute, New Delhi-12 भा. कृ. अनु. प.-भारतीय कृषि अनुसंधान संस्थान, नई दिल्ली-12
Tender Typeनिविदा प्रकार (Open/Limited/EOI/Auction/Single/Global)	Open
Tender Categoryनिविदा श्रेणी (Services/Goods/works)	Goods
Type/Form of Contract कार्य विवरण (Work/Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	Buy
Product Categoryवस्तु/ कार्य का प्रकार (Civil Works/Electrical Works/Fleet Management/ Computer Systems)	Others
Source of Fund (Institute/Project)	Project Code: DST(28-08)/AE
Is Multi Currency Allowed	No
Date of Issue/Publishing प्रकाशन तिथि	06/10/2022/(15:00 Hrs)
Document Download/Sale Start Date डाउनलोड खुलने की तिथि	06/10/2022/(15:00 Hrs)
Document Download/Sale End Date डाउनलोड बंद की तिथि	27/10/2022/(15:00 Hrs)
Last Date and Time for Uploading of Bids अपलोड के लिए अन्तिम तिथि	27/10/2022/(15:00 Hrs)

Date and Time of Opening of Technical Bids निविदा खुलने की तिथि	28/10/2022/(15:00 Hrs)
EMD for item ई एम डीकी राशि	Rs. 25000
Bid Validity days (180/120/90/60/30) बोली की वैधता सीमा	180 Days (From last date of opening of tender)
Address for Communication पता	Division of Agricultural Engineering ICAR-IARI New Delhi Pusa Campus, New Delhi-110012, Delhi, India
Contact No. संपर्क सूत्र	011-25842294
Email Address ईमेल पता	Dhingra.sangeeta@gmail.com

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 final and inclusive of loading, unloading charges and delivery at the installation site (As given in Annexure-I).
3. Full specifications/details of the article quoted/service provided for shall be given in the quotation along with Supporting documents/literature/pamphlet etc. User list of the 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.
5. Supply is to be made by any convenient mode of transport at supplier's risk unless otherwise specified.
6. Transport firm will be responsible for the safety of the cargo in all circumstances and handling complete and proper papers.
7. The Director, ICAR-IARI reserves the right to accept or reject any or all the tenders received, without assigning any reason.
8. The successful tenderer will have to give an undertaking that no consignment of ICAR-IARI will be detained/withheld by them before or after the clearance under any circumstances.
9. The Director, ICAR-IARI, New Delhi reserves the right to terminate the contract/Order on one month's prior notice at any time on finding the service unsatisfactory or on breach of contract/Order.
10. Bids of firms who have not executed any contract satisfactorily, failed to execute any such contract have/poor tract record shall not be considered. Misrepresentation or suppression of acts will lead to cancellation of the bid and forfeiture of the EMD.
11. Except where otherwise provided in the clauses of this contract or the execution of the same arriving during the progress of work after the completion, abandonment thereof all disputes shall be referred to the sole arbitration of a person nominated by the Director General, ICAR and if he is unable or unwilling to act, to the sole arbitration of other person appointed by him willing to act as an arbitrator. The submission shall be deemed to be submission arbitration under the meaning of the Arbitration Act 1940 or any statutory modification of re-enactment thereof for the time being in force. The award of arbitrator so appointed shall be final,

conclusive and binding on all parties to this contract.

12. All disputes to be settled under New Delhi Jurisdiction.
13. In case of any confusion, the parties should seek clarification about terms and conditions and pattern of formats, instead of quoting in ambiguous manner.
14. The bid should be accompanied with earnest money of **Rs. 25,000/- (Rs. Twenty-Five thousand only)** in the form of D.D./Pay Order/ Fixed Deposit Receipt/ Bank Guarantee from commercial bank drawn in favour of Director, ICAR-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.
15. No interest on security deposit and earnest money deposit shall be paid by the Institute to tenderer.
16. **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 60days beyond the date of completion of all contractual obligation of supplier including warranty obligation for the equipment/goods costing Rs.1.00lakhs (Rs. One Lakh) or more.**
17. Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work after challan copy verification and receipt of pre-receipt bills triplicate.
18. 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.
19. The firm should have sufficient experience in transport service (Attach proof)
20. Pre-bid conference for any clarification will be held on **14th October, 2022** at 2.30 PM in **Division of Agricultural Engineering IARI, New Delhi.**
21. Scanned copy of GST/PAN Nos as well as EMD need to be uploaded through online bid
22. In case, any dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & Court at New Delhi. Sole arbitrators appointed by the Secretary, ICAR, New Delhi. His decision will be final and binding on both parties (Supplier and Purchaser).
23. **Quotations not complying with the above conditions are liable to be rejected.**
24. **Rates should be quoted as per BOQ 1 online.**
25. The Product must be covered under warranty for a minimum period of one year.

The following documents must be seen before apply

1. GST Number (scan copy)
2. Pan CardNumber (scan copy)
3. EMD copy
4. **Bid Securing Declaration Document (Scan copy)**(Annexure V)
5. Compliance Report in accordance with the tender technical specification.(Annexure I)
6. The tender documents duly signed by the concerned firm accepting the same should be attached with technical bid.
7. Certificate declaring that the firm has not been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India.(Annexure II)
8. Firm Details Document(Annexure III)
9. Check List(Annexure IV)

**Item. No. Description of the Item
Amount**

Qty. Req. (Approx.)

Unit rates

Total

1. Remote Monitoring circuits with indoor & outdoor Air temperature-RH sensor, Solar radiation, Ac voltage sensor

Quantity- 1 (One)



**AAO,
Agricultural Engineering Division**

TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF REMOTE MONITORING CIRCUIT:

1	Remote monitoring circuit datalogger 4G Enabled	<p>Operating Range -40° to 60°C (-40° to 140°F); no remote communications for battery voltage less than 3.9 V DC</p> <p>Smart Sensor Connectors 10</p> <p>Smart Sensor Network Cable Length 100 m (328 ft) maximum</p> <p>Smart Sensor Data Channels Maximum of 15</p> <p>Module Slots 2</p> <p>Logging Rate 1 second to 18 hours</p> <p>Time Accuracy ±8 seconds per month in 0° to 40°C (32°F to 104°F) range ±30 seconds per month in -40° to 60°C (-40° to 140°F) range</p> <p>Battery Type/Power Source 4 Volt, 10 AHr, rechargeable sealed lead-acid</p> <p>Rechargeable Battery Service Life 3–5 years when operated in the temperature range -20° to 40°C (-4°F to 104°F)</p> <p>Memory 32 MB, 2 million measurements, continuous logging</p> <p>Alarm Notification Latency Logging interval plus 2–4 minutes</p>
2	Temperature / RH Sensor	<p>Measurement Range Temp: -40°C to 75°C (-40°F to 167°F) RH: 0-100%* RH at -40° to 75°C (-40° to 167°F)</p> <p>Accuracy Temp: ±0.25°C from -40° to 0°C (±0.45°F from -40° to 32°F); ±0.20°C from 0° to 70°C (±0.36°F from 32° to 158°F); ±0.25°C from 70° to 75°C (±0.45°F from 158° to 167°F) RH: ±2.5% from 10% to 90% RH, to a maximum of ±3.5% including hysteresis at 25°C (77°F); below 10% and above 90% ±5%</p> <p>Resolution Temp: 0.02°C RH: 0.01% RH</p> <p>Bits Per Sample Temp: 16 RH: 16</p> <p>Drift Temp: < 0.01°C (0.18°F) per year RH: < 1% per year typical</p>
3	Solar Radiation Sensor	Measurement range: 0 to 1280 W/m ²

	(silicon pyranometer sensor)	<p>Operating temperature range: -40° to 75°C (-40° to 167°F)</p> <p>Accuracy: ±10 W/m² or ±5%, whichever is greater in sunlight.</p> <p>Resolution: 1.25 W/m²</p> <p>Drift: <±2% per year</p> <p>Spectral range: 300 to 1100 nm</p> <p>Cosine response error: ±5%, 0° to 70°; ±10%, 70° to 80° from vertical</p> <p>Azimuth error: ±2% error at 45° from vertical, 360° rotation</p> <p>Cable length: 3 m (9.8 ft)</p> <p>Length of Smart Sensor Network Cable: 3 m</p> <p>Measurement parameters: average over logging interval</p>
4	Ac Potential Transformer Sensor	<p>Measurement range: 150, 300, 600 Volts AC</p> <p>Accuracy: ±1% (from 10% to 130% of rated voltage)</p> <p>Phase angle: <1 degree</p> <p>Output signal: 0.333 Volt at rated input voltage</p> <p>Connections: 8-ft PVC insulated wire</p> <p>Number of data channels: 1</p>
5	AC Current Measurement Transformer	<p>Accuracy: ±0.75% from 1% to 120% of rated primary current</p> <p>Phase angle: ±0.5 degrees (30 minutes) from 1% to 120% of rated current</p> <p>Accuracy standards: IEEE C57.13 class 1.2 and IEC 60044-1 class 1.0</p> <p>Primary rating: 5 to 250 Amps, 600 Vac, 60 Hz nominal</p> <p>Output: 333.33 mVac at rated current</p> <p>Operating temperature: -30°C to 55°C</p> <p>Safe: integral burden resistor, no shorting block needed, unless otherwise noted</p> <p>Standard lead length: 8 ft (2.4 m)</p>
6	Light Sensor Bracket.	<p>Bracket: reach 16.5", height 11", 1.38" wide</p> <p>Mounting plate: h 3.38" x w 3"</p>
7	Accessories	USB Cable

Compliance Report

Remote Monitoring circuits with indoor & outdoor Air temperature-RH sensor, Solar radiation, Ac voltage sensor.

	Item	Specifications	YES / NO
1	Remote monitoring circuit datalogger 4G Enabled	<p>Operating Range -40° to 60°C (-40° to 140°F); no remote communications for battery voltage less than 3.9 V DC</p> <p>Smart Sensor Connectors 10</p> <p>Smart Sensor Network Cable Length 100 m (328 ft) maximum</p> <p>Smart Sensor Data Channels Maximum of 15</p> <p>Module Slots 2</p> <p>Logging Rate 1 second to 18 hours</p> <p>Time Accuracy ±8 seconds per month in 0° to 40°C (32°F to 104°F) range ±30 seconds per month in -40° to 60°C (-40° to 140°F) range</p> <p>Battery Type/Power Source 4 Volt, 10 AHr, rechargeable sealed lead-acid</p> <p>Rechargeable Battery Service Life 3–5 years when operated in the temperature range -20° to 40°C (-4°F to 104°F)</p> <p>Memory 32 MB, 2 million measurements, continuous logging</p> <p>Alarm Notification Latency Logging interval plus 2–4 minutes</p>	
2	Temperature / RH Sensor	<p>Measurement Range Temp: -40°C to 75°C (-40°F to 167°F) RH: 0-100%* RH at -40° to 75°C (-40° to 167°F)</p> <p>Accuracy Temp: ±0.25°C from -40° to 0°C (±0.45°F from -40° to 32°F); ±0.20°C from 0° to 70°C (±0.36°F from 32° to 158°F); ±0.25°C from 70° to 75°C (±0.45°F from 158° to 167°F) RH: ±2.5% from 10% to 90% RH, to a maximum of ±3.5% including hysteresis at 25°C (77°F); below 10% and above 90% ±5%</p> <p>Resolution Temp: 0.02°C RH: 0.01% RH</p> <p>Bits Per Sample Temp: 16 RH: 16</p>	

		Drift Temp: < 0.01°C (0.18°F) per year RH: < 1% per year	
3	Solar Radiation Sensor (silicon pyranometer sensor)	Measurement range: 0 to 1280 W/m ² Operating temperature range: -40° to 75°C (-40° to 167°F) Accuracy: ±10 W/m ² or ±5%, whichever is greater in sunlight. Resolution: 1.25 W/m ² Drift: <±2% per year Spectral range: 300 to 1100 nm Cosine response error: ±5%, 0° to 70°; ±10%, 70° to 80° from vertical Azimuth error: ±2% error at 45° from vertical, 360° rotation Cable length: 3 m (9.8 ft) Length of Smart Sensor Network Cable: 3 m Measurement parameters: average over logging interval	
4	Ac Potential Transformer Sensor	Measurement range: 150, 300, 600 Volts AC Accuracy: ±1% (from 10% to 130% of rated voltage) Phase angle: <1 degree Output signal: 0.333 Volt at rated input voltage Connections: 8-ft PVC insulated wire Number of data channels: 1	
5	AC Current Measurement Transformer	Accuracy: ±0.75% from 1% to 120% of rated primary current Phase angle: ±0.5 degrees (30 minutes) from 1% to 120% of rated current Accuracy standards: IEEE C57.13 class 1.2 and IEC 60044-1 class 1.0 Primary rating: 5 to 250 Amps, 600 Vac, 60 Hz nominal Output: 333.33 mVac at rated current Operating temperature: -30°C to 55°C Safe: integral burden resistor, no shorting block needed, unless otherwise noted Standard lead length: 8 ft (2.4 m)	
6	Light Sensor Bracket.	Bracket: reach 16.5", height 11", 1.38" wide Mounting plate: h 3.38" x w 3"	
7	Accessories	USB Cable	

(Signature with seal)
Name of Signatory:

(To be furnished on company letter head)

Declaration

**This is to confirm that our firm
..... .. **has**
never been blacklisted/debarred by any state Govt./Central Govt./ Department of Public
undertaking enterprises.**

Date:
Place:

Stamp & Signature
Name of the Authorized Signatory

फर्म का विवरण Firm Details
(To be furnished on company letter head)

Name of the Firm-----

Registered/Postal Address-----

1.	Permanent Account Number (PAN)	
2.	GST, Registration No., if applicable	
3.	Bank Details	
4.	Bank Name	
5.	Branch Address	
6.	Account Number	
7.	Type of account (current/saving)	
8.	MICR No.	
9.	RTGS/NEFT code	

Date:

Place:

Stamp & Signature

Name of the Authorized Signatory

Check List जांच सूची

Other Condition			
SN	Particular	Write (Yes/No)	Document Attached (Yes/No)
1.	GST Number (scan copy)		
2.	Pan Card Number (scan copy)		
3.	EMD copy		
4.	<u>Bid Securing Declaration Document</u> (scan copy) Annexure V		
5.	Compliance Report in accordance with the tender technical specification. (Annexure I)		
6.	Detail Technical specification of equipment/item (literature/pamphlet/drawing etc).		
7.	The tender documents duly signed by the concerned firm accepting the same should be attached with technical bid.		
8.	Certificate declaring that the firm has not been debarred/Black listed by the Govt. Deptt./Court of law for doing any business in India. (Annexure II)		
9.	Firm Details Document (Annexure III)		
10.	Check List (Annexure IV)		

Signature with Seal

Name of authorized signatory

Bid Securing Declaration

(To be submitted on Rs. 100 Non-Judicial Stamp Paper duly notarized)

(Country
(City

Bid- Securing Declaration
Invitation to Bid No:

To

I/we, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid- Securing Declaration.
2. I/We accept that: (a) I/We will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting order; and (b) I/we will pay the applicable fine provided under section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Section 23.1 (b), 34.2 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that bid-securing declaration shall cease to be valid on the following circumstances:
 - (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - (b) I am/ we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - (c) I am/ we are declared as the bidder with the Lowest Calculated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

In witness whereof, I/we have hereunto set my/our hand/s this ____ day of (month] at [place of execution].

Name of Bidder's
Authorized Representative
(Insert signatory's legal capacity)
Affiant

Subscribed and Sworn to before me this __ day of [month] [year] at [place of execution], _____. Affiant/s is /are personally known to me and was/were identified by me through competent evidence of identity. Affiant/s exhibited to me his/her/[insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her community Tax Certificate No. _____ issued on _____ at _____.

Witness my hand and seal this ____ day of [Month] [year].

Name of Notary Public
Serial No. of Commission _____
Notary Public for ____ Until _____
Roll of Attorneys No. _____
PTR No. ____, (dated issued), [place issued]