# KERALA AGRICULTURAL UNIVERSITY



Department of Agricultural Meteorology College of Agriculture, Vellanikkara, KAU Post. Thrissur – 680 656 Kerala

Phone:0487-2371931 Email: cohagmet@kau.in

No.KAU/AGMET/AICRPAM/T1-Revised/2021-22

Date: 28.02.2022

## **Tender Notice**

Tenders are invited for the supply, installation, commissioning, demonstration and training of **'WEATHER AND SOIL PROFILE STATION'** as per the technical specifications and terms and conditions attached. General information about the tenderer is to be furnished as in Annexure I. Preliminary agreement shall be executed in the format given in Annexure II, technical specifications in Annexure III, and users list as given in Annexure IV. As per DSIR registration, necessary exemption can be availed for customs & excise duties for the purchase. The University is eligible for relaxation in GST as per Notification No.45/2017 Central Tax (Rate) dated 14.11.17 & Notification No.47/2017 Integrated Tax (Rate) dated 14.11.17. Our GST Regn. No. is: 32AAAJR0762J5Z3

Tender Details				
1	Name of the equipment	WEATHER AND SOIL PROFILE STATION		
2	Tender inviting authority	Associate Professor & Head, Dept of Agrl.		
		Meteorology, CoA, Vellanikkara		
3	Location of supply and installation:	Dept of Agrl. Meteorology, CoA,		
		Vellanikkara; installation at Research Plot of		
		the Department at Instructional Farm, KAU,		
		Vellanikkara		
4	Date and Time of Publication of	28/02/2022 at 10 am (Revised)		
	Tender			
5	Last Date and Time of Receipt of	08/03/2022 at 2 pm (Revised)		
	Tenders			
6	Date and Time of Opening of	08/03/2022 at 3 pm (Revised)		
	Technical Bid			
7	Earnest money deposit (EMD)	1% rounded to the nearest rupees of the total		
		cost of the articles /quoted amount subject to a		
		minimum of Rs. 1,500.00		
8	Tender submission fee	Above 1.0 lakh to 10.00 lakhs - 0.20% of the		
		cost of tender rounded to the nearest multiple		
		of hundred subject to a minimum of Rs. 400.00		
		and maximum of Rs. 1,500.00 + 12% GST as		
		applicable		
9	Submission of performance security	15 days from issue of purchase order		
10	Period of supply and installation	Within 45 days from date of purchase order		

#### **Instructions to the bidders**

1. **Payment of tender fee and EMD** – As mentioned in serial no. 7 and 8 in the tender Notice.

2. On submitting the tender form, the cost of the tender form as mentioned above may be drawn by DD in favour of "The Associate Professor and Head, Dept. of Agricultural Meteorology, College of Agriculture, Vellanikkara, Thrissur 680 656" payable at SBI KAU Main Campus, Vellanikkara (Code-70670) should been enclosed along with the tender submitted

3. Earnest Money Deposit (EMD): EMD @ 1% of the cost of the machine may be remitted by a separate Demand Draft drawn as detailed above.

4. The purchase, installation and commissioning should indicate separately. Taxes, customs, and excise duty, packing, forwarding, insurance, labor cost and any other cost for its installation, if any should also be included.

5. The sealed cover containing the tender documents should be super scribed "Tender for the supply and installation of weather and soil profile station" and sent to 'The Associate Professor and Head, Dept. of Agricultural Meteorology, College of Agriculture, Vellanikkara, Thrissur 680 656'.

6. Successful tenderers will have to execute an agreement and remit security deposit @ 5% of the value of the purchase, less the amount of EMD, drawn as DD or fixed deposit receipt.

7. All items must be quoted and must comply with the respective specifications.

8. Specification claimed must be supported by printed company datasheets and brochures (original).

9. The undersigned reserves the authority to accept or reject any or all the tenders without assigning any reason

For further details /clarifications, send e mail to cohagmet@kau.in

Sd/-Associate Professor & Head



# Tender No. KAU/AGMET/AICRPAM/T1- Revised/2021-22 dtd.28.02.2022

# KERALA AGRICULTURAL UNIVERSITY Department of Agricultural Meteorology College of Agriculture, Vellanikkara, Thrissur District, Kerala, PIN-680 656

E-mail: cohagmet@kau.in

Tender containing general conditions of the contract and schedule for the supply of **WEATHER AND SOIL PROFILE STATION** 

Name of tenderer:

Address:

#### **TENDER OFFER FORM**

Sir,

I/We hereby tender to supply, under the annexed general and specific conditions of contract, the whole of the articles referred to, described in the attached detailed technical specification and schedule, or any portion thereof as may be decided by the Kerala Agricultural University, at the rate quoted against each item. The articles will be delivered within the time and at the places specified in the schedule or in default thereof to forfeit and pay to Kerala Agricultural University the amount mentioned in said conditions.

Location of supply	Department of Agricultural Meteorology,	
	College of Agriculture, Kerala	
	Agricultural University, Thrissur District,	
	Kerala (Installation: Research Plot of the	
	Dept. at Instructional Farm, Vellanikkara)	
Period of firmness of the tender offer	90 days	
Submission of performance security	15 days from issue of purchase order	
Period of supply	Within 45 days from date of purchase	
	order	

#### **Tender schedule**

Undertaking that the Bidder is not Debarred/ Blacklisted or Banned from Any University/ Government Institute / PSU is attached.

Valid dealership certificate, EMD/tender fee Exemption Certificate & other certificates (Enlistment with DGSD, Up to date GST registration certificate, PAN) for tender acceptance are attached.

Preliminary Agreement in stamp paper of Rs.200/-, Warranty and Terms and Conditions of Contract and user list are attached.

Five latest Purchase Order copy for supply and installation of Weather and Soil Profile Station in South India, Technical Brochure of the Quoted Models of equipment signed by the Principals are also attached.

#### GENERAL CONDITIONS

If any tenderer withdraws from his tender before the expiry of the period fixed for keeping the rates firm for acceptance, the earnest money, if any deposited by him will be forfeited to Kerala Agricultural University or such action taken against him as the University think fit.

Tenders should be prepared to accept orders subject to the penalty clause for forfeiture of security in the event of default in supplies or failure to supply within the stipulated period.

Kerala Agricultural University reserves the right to accept whole or any part of any tender or portion of the quantity offered or reject it in full without assigning any reason.

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the state of Kerala.

In addition to these, all other General Conditions annexed in the Store Purchase Manual of Government of Kerala are also applicable to this tender.

The tender will invariably furnish the following certificates with their bills for payment.

Signature and address of Witnesses:

1.

2.

Yours faithfully,

Tenderer certifies that the above information is true and in case it is found not be true at a later date the owner shall have the right to terminate the contract.

Signature of the Supplier/authorized agent

DESIGNATION COMPANY

Address).....

SEAL OF COMPANY

Date: .....

**Note:** Editing of the text in the tender form in any way other than as indicated (like filling in, scoring off inapplicable material etc.) will render form invalid and liable for rejection.

#### ANNEXURE I

# GENERAL INFORMATION ABOUT THE TENDERER

1	Tender reference No.		
2	Date of submission of tender offer		
3	Details of EMD submitted (if any)		
4	Tender submitted by		
	Name of the Tenderer		
	Registered address of the		
	firm with GSTIN		
	Telephone No		
	Email		
5	Name of Principal Supplier (if not self)		
6	Authorization by the Principal supplier (Attach details)		
7	Authorized contact person		
	Designation		
	Telephone No		
	Mobile No.		
8	Communication Address		
	Telephone No		
	Email		
	Registration No. & Date of Registration		
9	Nature of Business		
1.0	OEM, Authorized dealer, Direct importer		
10	Key personnel Details (Chairman, CEO,		
	Directors, Managing Partners etc. )		
	Name		
	Designation Communication address		
	Telephone No Email		
11	Bank Details		
11	Bank Details Bank Account No.		
	Bank Name & Address		
	Branch Name & IFSC Code		
	Telephone No & Email ID		
12	List of supporting documents submitted		
12	along with the tender		
	Any other relevant information		

Signature of the bidder / Authorised signatory

Office seal

#### ANNEXURE II

#### (Send duly filled & signed hard copy of the agreement in Kerala Stamp Paper worth Rs. 200/- purchased in the name of the Contractor to the tender inviting authority,& upload scanned copy)

#### AGREEMENT

Articles of agreement executed on this the \_\_\_\_\_ day of \_\_\_\_\_, two thousand and \_\_\_\_ between \_\_\_\_\_ (here enter the name and address of the purchasing officer) for and on behalf of the Vice-Chancellor, Kerala Agricultural University, (hereinafter referred to as "The University") of the one part and Sri. \_\_\_\_\_ (H.E. name and address of the tenderer) (hereinafter referred to as "the Bounden") of the other part.

WHEREAS in response to the notification no. \_\_\_\_\_\_ dated \_\_\_\_\_\_ dated \_\_\_\_\_\_\_, the Bounden has submitted to the University a tender for the supply of \_\_\_\_\_\_\_ specified therein subject to the terms and conditions contained in the said tender.

WHEREAS the Bounden has also deposited with the University a sum of Rs. \_ \_ \_ \_ \_ \_ \_ \_ only as earnest money for the execution of an agreement undertaking the due fulfilment of the contract, in case his tender is accepted by the University.

#### NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows:

1. In case the tender submitted by the Bounden is accepted by the University and the contract for the supply of any item of \_\_\_\_\_ as per the above notification is awarded to the Bounden, the Bounden shall within fifteen days of acceptance of his tender, execute an agreement with the University incorporating all the terms and conditions under which the University accepts his tender.

2. In case the Bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the University shall have power and authority to recover from the Bounden any loss or damage caused to the University by such breach as may be determined by the University, by appropriating the earnest money deposited by the Bounden and if the earnest money is found to be inadequate, the deficit amount may be recovered from the Bounden and his properties movable and immovable in the manner hereinafter contained.

3. All sums found due to the University under or by virtue of this agreement shall be recoverable from the Bounden and his properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and in such other manner as the University may deem fit.

In witness whereof the \_\_\_\_\_\_ (here enter the name and address of the purchasing officer), for and on behalf of the Vice-Chancellor of Kerala Agricultural University and Shri. \_\_\_\_\_\_, the Bounden, have here unto set their hands the day and year shown against their respective signatures.

Signed by Shri. \_\_\_\_\_ (date) \_\_\_\_\_ (date) \_\_\_\_\_ In the presence of witnesses:

1.

2.

Signed by Shri. \_\_\_\_\_ (date) \_\_\_\_\_ (date) \_\_\_\_\_ In the presence of witness:

1.

2.

#### Annexure III

#### **Technical Specifications**

#### WEATHER AND SOIL PROFILE STATION

#### Specifications

#### DATALOGGER

- Minimum Scan Rate of 10Hz
- Enough Channels for connecting all the sensors of this station. Additional required Analog Inputs : 6 , Pulse Inputs : 2 for connecting additional sensors in future.
- Switched Excitation Voltage Channels : 2
- Communication Ports : RS232, USB
- Input Voltage Range : -100 mV to +2200 mV
- Analog / Digital Bits : 24 Bit
- Analog Resolution : 0.23 Micro Voltage
- Inbuilt Data storage for Two years with 10 Minute duration
- Temperature Range : -40 to 60 Deg C
- Power Requirements : 10 to 18 Vdc
- Real-Time Clock Accuracy : ±1 min. per month
- Inbuilt Charge Regulator For Charging the battery from Solar Panel

# AIR TEMPERATURE & RELATIVE HUMIDITY SENSOR : 4 UNITS Air Temperature Sensor

- Range:  $-40^{\circ}$ C to  $+60^{\circ}$ C
- Accuracy: +/-  $0.5^{\circ}C$  or better
- Resolution : 0.001°C
- Output: Compatible with data logger

## **Relative Humidity Sensor**

- Range: 0 to 100% RH
- Output Compatible with data logger
- Accuracy: +/- 3% or better
- Operating Temp Range: -40°C to +50°C

#### SOIL MOISTURE & TEMPERATURE SENSOR : 4 UNITS

- Measurement of Soil electrical conductivity (EC), relative dielectric permittivity, volumetric water content (VWC), soil temperature
- Short rods to install in hard soil. Suitable for soils with higher electrical conductivity.
- Sensing Volume : 3600 cm<sup>3</sup> (~7.5 cm radius around each probe rod and 4.5 cm beyond the end of the rods)
- Operating Temperature : -40° to +60°C
- Rod Spacing 32 mm (1.3 in.)
- Rod Length 120 mm (4.7 in.)

#### **Electrical Conductivity**

- Range for Solution EC 0 to 8 dS/m
- Range for Bulk EC 0 to 8 dS/m
- Accuracy  $\pm$ (7% of reading + 0.05 dS/m)

## **Relative Dielectric Permittivity**

- Range 1 to 81
- Accuracy  $\pm(5\%$  of reading + 0.8) from 1 to 40 for solution EC  $\leq$  8 dS/m ,  $\pm$ 2 (from 40 to 81 for solution EC  $\leq$  2.8 dS/m)

# Volumetric Water Content

- Range 0 to 100% (with M4 command)
- Water Content Accuracy  $\pm 3\%$  (typical with factory VWC model) where solution EC < 10~dS/m
- $\pm 1\%$  (with soil-specific calibration) where solution EC < 3 dS/m

# Soil Temperature

- Range  $-40^{\circ}$  to  $+70^{\circ}$ C
- Resolution 0.001°C
- Accuracy ±0.1°C (for typical soil temperatures [0 to 40°C] when probe body is buried in soil) ±0.5°C (for full temperature range)

# ENCLOSURE

- Enclosures Weather-Resistant 10 x 12 inch Enclosure. Includes suitable for datalogger with a power supply and one or more peripherals.
- Color White (reflects solar radiation, reducing temperature gradients inside the enclosure without using a separate radiation shield)

# **POWER SUPPLY**

• SMF Battery 12V, 7 AH and Solar Panel of 20 Watts

# MOUNTING STAND

• 3 Mounting Stands for fixing all the above instruments in outdoor

Suppliers shall be entirely responsible for **packing**, **forwarding**, **freight**, **insurance charges**, all duties, taxes, license fees, octroi, road permits, insurance, clearing charges, etc., incurred until delivery of the Goods to the Purchaser. Nothing extra will be paid in addition to quoted rates.

As per the notification no. 45/2017-Central Tax (Rate), Govt. of India, dated 14th November, 2017, procurement of Indigenous items such as scientific and technical instruments, apparatus, equipment (including computers), accessories, parts and consumables by research institutes/ Universities, GST applicable should be 5%. DSIR and Essentiality certificate and other documents will be produced by KAU, for the needed items.

Declaration by the tenderer

It is hereby declared that the details given above are correct as pertaining to the quoted model. The formal financial bid is enclosed including all relevant details.

SIGNATURE OF TENDERER

SEAL OF THE COMPANY

#### ANNEXURE IV

#### Users List of supply and installation of Weather Station and Soil Profile Station in South India by the Bidder for the last five years

User list for instrument model:

\*Please mention the Operational status as one of the following: Installation Only/In Operation.

Do not include instruments that are not installed or not operational as of the date of opening of the tender.

User Name &	Date of	Current	Name &	Contact number &
Address	supply	Operational	Designation of the	Email ID
Address	and	status of the	contact person	
	installati	instrument*	contact person	
	On	mstrument		
	011			