



KERALA AGRICULTURAL UNIVERSITY

College of Climate Change and Environmental Science,
Vellanikkara, Thrissur Dist. Pin:680656

Phone: Dean: 0487-2438691, Office: 0487-2438692, E-mail:ccces@kau.in

No. CCCES/146/2025 – A2 (NT- v)

Dtd. 25.07.2025

TENDER NOTICE

Sealed tenders are invited from competent firms for the supply and installation of following items at College of Climate Change and Environmental Science with specifications as detailed below. The tender will be accepted up to **05.08.25025 @3.00 PM**. The tenders received after the stipulated time will not be considered at any circumstances. The received tenders will be opened at **05.08.2025 @3.30 PM**.

Si N o	Item	Quantity
1	Automatic Nitrogen/Protein Estimation System	1
	<ul style="list-style-type: none"> • Six Place 250 ml capacity PC Compatible Block Digestion System with all essential accessories • TFT Graphic Touch Screen Display with unique wireless mouse to operate at a distance of 1-2 mtrs without connecting to PC. • Should have 3 Ports in the control panel one Direct port to connect unique wireless Remote mouse / wireless keyboard, Second port to connect Memory stick for Data logging & storage / Remote control module for wireless data monitoring & transfer to PC, 3rd port to connect Ethernet / LAN Connectivity • Integrated autosequencing time/temperature domain of 100 programs and 12 sequencing steps • Live Graph representation with Time temp curve in touch screen display • Temperature Controller should be isolated separately in a control tower to protect electronics from digestion heat zone and acid reaction zone, with separate access door for electronics control tower unit. • Inbuilt add-on safety standby PID Controller for Heater & block protection apart from main microprocessor controller. • Inbuilt Machine management Software enables multi user login feature with superior admin password with multi user password for minimum 5-10 users • Remote Control Module for wireless data monitoring, control & transfer to PC at a distance of 5-10 Feet from equipment. • The user can view all the programme that is set & the current status of programme in process from his work table on his laptop or PC at a distance of 5-10 feet and can also control or alter settings. • The entire display parameters of controller wirelessly appears in the user's PC • Unique driver software to link Touch screen controller to Data processing system wirelessly. • IP address of user's device name displayed in the login page • Real time Datalogging features with real time clock • Temperature Control Range Room Temperature to 500° C with safety cut off at 470°C (As per Kjeldhal chemistry effective digestion takes place 380°C - 420°C), Temperature Accuracy : $\pm 1^{\circ} \text{C}$ 	

	<ul style="list-style-type: none">• Power failure mode : In event of power resumption, holds previous programmed setting in memory & on power resumption starts from last set value.• Additional KEL FLOW suction assembly with giant suction water aspirator filter suction pumps (2 nos.) for safe removal of acid fumes with online tap water supply in the event of scrubber out of usage or repair.• All essential accessories like Digestion Tubes, SS Insert Rack, Exhaust Manifold,• Suction Assembly wall mounted on rear side of unit for safe removal of acid fumes & easy access to drain area <p><u>B. Scrubber System</u></p> <ul style="list-style-type: none">• Three stage acid neutralization scrubber.• Non corrosive centrifugal inbuilt magnetic suction pump for water recirculation.• Motor Capacity: 30 litres / min• Automatic Water level indicator to view water level in FRP tank externally• Fibre Reinforced plastic Tank, Containers for Alkali and Water• The OEM should be reputed with atleast 100 installations in Kerala state.• The instrument shall strictly confirm to the specifications with relevant brochure & Photograph with images.• The OEM should have proof of atleast 25 installations of long term users using equipments for more than a period of 10 -15 years showing longevity of operations• The bidders/OEM must show online demonstration of the quoted system during technical evaluation of the bids. This is an essential requirement.• The instrument should be approved registered brand, Certificates issued by Trade Mark Registry under Trade Marks Act 1999 (Govt. of India)• The OEM should have atleast Rs.5 Crore average Turnover in last three financial years																					
2	Digital Lux Meter with Flexible Sensor	1																				
	<table><tr><td>Functions</td><td>MAX MIN / , Backlight, Auto Power Off with Disable Feature, Data Hold</td></tr><tr><td>Range</td><td>0.1 ~ 200,000 lux , 0.1 ~ 20,000 fc</td></tr><tr><td>Accuracy</td><td>±5% rdg+10 dgt (10.000 lux/fc) 930P ±3% + 30 dgt</td></tr><tr><td>Resolution</td><td>0.1 lux or 0.1 fc</td></tr><tr><td>Selection</td><td>lux / fc</td></tr><tr><td>Power</td><td>1.5V x 2 Batteries</td></tr><tr><td>Dimensions</td><td>157 x 54 x 34mm (approx.)</td></tr><tr><td>Weight</td><td>70gms - Including Battery (approx.)</td></tr><tr><td>Accessories</td><td>Carrying Case, Inst. Manual, Batteries (installed)</td></tr></table>	Functions	MAX MIN / , Backlight, Auto Power Off with Disable Feature, Data Hold	Range	0.1 ~ 200,000 lux , 0.1 ~ 20,000 fc	Accuracy	±5% rdg+10 dgt (10.000 lux/fc) 930P ±3% + 30 dgt	Resolution	0.1 lux or 0.1 fc	Selection	lux / fc	Power	1.5V x 2 Batteries	Dimensions	157 x 54 x 34mm (approx.)	Weight	70gms - Including Battery (approx.)	Accessories	Carrying Case, Inst. Manual, Batteries (installed)			
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3	POCKET TESTER	1																				
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4	Rangefinder	1
	Display SKU BKA094YA Measurement Range 7.5-1,600m Power source CR2 lithium battery × 1 (DC 3V) Automatic power-off (after approx. 30 sec. unoperated) Environment RoHS, WEEE	
5	Tensiometer	3
	<p>The Tensiometer Device features a ceramic material made from Al₂O₃ sinter with a bubble point greater than 15 bar. The ceramic dimensions are 60 mm in length and 24 mm in diameter. The shaft is constructed from impact-proof PMMA with a diameter of 25 mm. For sensor cables, those with shaft lengths under 120 cm have a cable length of 1.5 m minus the shaft length, while those with shaft lengths over 121 cm have a cable length of 2.3 m from the sensor body. The device includes a male 4-pin plug with a thread M12, IP67 rating. The measuring range of the pressure transducer is from 100 kPa to +100 kPa electronically, while water tension can be measured from 85 kPa to +100 kPa physically. The water level measurement range is 0 kPa to +100 kPa using a piezometer. The output signal ranges are -85 kPa at 85 mV for the tensiometer, 0 kPa at 0 mV, and 100 kPa at 100 mV for the piezometer. The pressure transducer has an accuracy of 0.5 kPa. The device operates on a stabilized supply voltage of approximately 10.6 VDC (with an operational range of 5 to 15 VDC) and has a current consumption of 1.3 mA at 10.6 VDC.</p>	
6	p^H BENCH METER	1
	Accuracy (Temperature) : ±0.3°C Accuracy (mV) : ±0.2 or ±0.05%, whichever is greater Accuracy (pH) : ±0.01 pH ± 1 LSD Data Management Details : Transfer single data point or all data points to computer or printer Description : pH/mV bench meter low-maintenance kit Outputs : Computer or printer (STARA-106) Includes : Meter with electrode stand, PC cable, universal power adapter For Use With (Application) : For Samples Containing TRIS Buffers, Proteins, Sulfides or Halides; Where a Gel-Filled pH Electrode That is Low-Maintenance and Easy to Operate is Desirable Measurement Modes : pH with mV and Temperature, Relative mV with mV and Temperature Calibration : pH, RmV and temperature Range (pH) : -2 to 18 Resolution (pH) : 0.1, 0.01 Ph Calibration Points (pH) : 1 to 5 points Range (mV) : ±2000.0 mV Range (ORP) : ±2000.0 mV with ±250 mV offset Resolution (mV) : 0.1 mV Calibration Points : 1 point RmV Temperature Range (Metric): -5.0°C to +105.0°C Resolution (Temperature) : 0.1°C	

	<p> Temperature Selection : Manual or automatic with ATC probe Temperature Probe Calibration : 1 point temperature offset calibration Display Type : 5 in. backlit LCD Backlight Option : Yes Memory : Non-volatile Data Points : 500 data sets with time and date Log Function Type : Automatic with Auto-Read and Timed read modes, manual with Continuous read mode Alarm Output : Calibration reminder alarm Inputs : BNC for pH or RmV and phono plug for ATC Certifications/Compliance : CE, TUV 3-1, FCC Class A IP Rating : IP54 AC Adapter : Universal 100-240 V 50/60 Hz power supply with twist-and-lock meter connection and interchangeable wall plugs for US/Japan, Euro, UK/Singapore, Australia/New Zealand and China outlets Dimensions (L x W x H) : 198.3 x 155.2 x 61.7 mm (7.81 x 6.11 x 2.43 in.) Weight (Metric) : 700 g Weight (English) : 1.54 lb. Warranty : 1 year meter warranty </p>																												
7	Portable water analyser (pH, TDS, Salinity,EC, Temperature)	1																											
	<p>Wide-range measurements of pH, Conductivity, TDS, Salinity and Temperature is a breeze with one single instrument made to fit your pocket. The new Testr 35 series is auto-ranging, IP67 waterproof and long-lasting with user-replaceable sensor – ideal for quick measurements in industrial water and wastewater applications.</p> <ul style="list-style-type: none"> One sensor measures 5 parameters – no need to switch sensors for different measurements. Full pH range measurement at up to 2 decimal resolution. Low, medium and high Conductivity/TDS ranges – tester even measures pure water! Multi-range Salinity measurements of up to 10.00 ppt or 1.00 %. Up to 5-point pH calibration and 3-point Conductivity/TDS/Salinity calibration. Adjustable TDS factor (0.40 to 1.00) and Temperature Coefficient Feature (0.0 to 10.0 % per °C) <p>Specifications</p> <table> <tr> <td>pH</td><td>Range</td><td>0.00 to 14.00 pH</td></tr> <tr> <td></td><td>Resolution</td><td>0.01 pH</td></tr> <tr> <td></td><td>Accuracy</td><td>0.01 pH</td></tr> <tr> <td></td><td>Cal. Points</td><td>Up to 5 (auto)</td></tr> <tr> <td></td><td>Auto Buffer Recognition</td><td>Yes</td></tr> <tr> <td>Conductivity</td><td>Range</td><td>0.0 to 199.9 µS/cm</td></tr> <tr> <td></td><td></td><td>200 to 1999 µS/cm</td></tr> <tr> <td></td><td></td><td>2.00 to 20.00 mS/cm</td></tr> <tr> <td></td><td>Resolution</td><td>0.1 µS/cm / 1 µS/cm / 0.01 mS/cm</td></tr> </table>	pH	Range	0.00 to 14.00 pH		Resolution	0.01 pH		Accuracy	0.01 pH		Cal. Points	Up to 5 (auto)		Auto Buffer Recognition	Yes	Conductivity	Range	0.0 to 199.9 µS/cm			200 to 1999 µS/cm			2.00 to 20.00 mS/cm		Resolution	0.1 µS/cm / 1 µS/cm / 0.01 mS/cm	
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		Accuracy	±1 % full scale
		Cal. Points	3 auto, 3 manual
		Temperature Coefficient	0.0 to 10.0 %/°C
		Normalisation Temperature	25.0 °C
		Auto-Ranging	Yes
	TDS	Range	0.0 to 99.9 ppm
			100 to 999 ppm
			1.00 to 10.00 ppt
		Resolution	0.1 ppm / 1 ppm / 0.01 ppt
		Accuracy	±1 % full scale
		Cal. Points	Up to 3 (manual)
		TDS Factor	0.40 to 1.00
	Salinity	Range	0.0 to 99.9 ppm
			100 to 999 ppm
			1.00 to 10.00 ppt
			0.0 to 1.00 %
		Resolution	0.1 ppm / 1 ppm / 0.01 ppt / 0.01 %
		Accuracy	±1 % full scale
		Cal. Points	Up to 3 (manual)
	Temperature	Range	0 to 50.0 °C / 32 to 122.0 °F
		Resolution	0.1 °C / 0.1 °F
		Accuracy	0.5 °C / 0.9 °F

Temperature Compensation	ATC / MTC	
Sensor Type	pH, Conductivity, TDS, Salinity, Temperature	
Non-Volatile Memory	Yes	
Auto-Off	8.5 mins after last key pressed	
	(can be disabled)	
LCD Display	Dual-display LCD (2.1 x 2.7 cm)	
Power	4 x 1.5 V “A76” micro alkaline batteries	
Battery Life	> 150 hrs	
Dimensions; Weight	Tester: 16.5 cm x 3.8 cm ; 90 g	
	Boxed: 18.5 cm x 6.5 cm x 5 cm ; 200 g	

Cost of Tender Forms: - 0.2% of the quoted amount rounded to the nearest multiple of 100, subject to a minimum of Rs.400/- and maximum of Rs. 1500 + GST 18%

Terms and Conditions:-

1. Tender should be submitted in the prescribed forms which can be downloaded from the website www.kau.edu/tenders. The cost of the tender forms will not be refunded under any circumstances.
2. The sealed cover containing the tender should be superscribed supply and installation of Automatic Nitrogen/Protein Estimation System, Digital Lux Meter with Flexible Sensor, POCKET TESTER, Rangefinder, Tensiometer, pH BENCH METER, Portable water analyzer (pH, TDS, Salinity, EC, Temperature) (along with the notification number) and addressed to the Dean, College of Climate Change and Environmental Science, Vellanikkara, KAU.
3. Tender should be accompanied by EMD of Rs.2000/- and Tender fee @ 0.2% +GST 18% of quoted amount by way of three crossed Demand Drafts separately (1. Tender fee 2. GST on tender fee 3. EMD) drawn in favour of The Dean, College of Climate Change and Environmental Science, Vellanikkara, KAU, payable at the State Bank of India, KAU branch, Vellanikkara,. Late and incomplete tenders and tenders without EMD, tender fee and agreement will not be accepted. Firms which are exempted from payment of EMD should furnish copy of the current valid certificate from the Store Purchase Department, Government of Kerala.

4. The tender should be accompanied by an agreement in Kerala Stamp Paper worth Rs.200/- (Rupees Two Hundred only) and format can be downloaded from the above website.
5. The successful tenderer should execute an agreement in Kerala Stamp Paper worth Rs. 200/- (Rupees Two Hundred only) and should furnish a security deposit of 5% of the cost of the items quoted in the form of demand draft term deposit/ bank guarantee/demand draft drawn in favour of the Dean, College of Climate Change and Environmental Science, Vellanikkara, KAU at State Bank of India, KAU branch, Vellanikkara, the format of the agreement can be downloaded from the above website.
6. The price must be inclusive of all taxes and transportation charges and other charges, if any.
7. The cost of the item, tax and other charges should be stated separately
8. The exact specification, details of make, model, name of manufacturer, warranty details etc., of the item must be clearly specified.
9. If any Bandh/strike/ any unexpected holidays occur on the date of opening of tender, the tender will be opened at the same time on the next working day. The decision of the undersigned in accepting the tenders shall be final and binding.
10. Withdrawal of tenders after its acceptance of failure to supply the equipment or not according to the specification will entail cancellation of the tender.
11. The supply order will be issued on the acceptance of the tender and the invoice should be addressed to the Dean, College of Climate Change and Environmental Science, Vellanikkara. The payment will be effected only after satisfactory supply and installation of the item.
12. The successful tenderer should supply and install the item to College of Climate Change and Environmental Science, Vellanikkara, KAU. within Ten days from the date of the receipt of the supply order.
13. The Dean, College of Climate Change and Environmental Science, Vellanikkara, reserves the right to remove the name of the defaulted suppliers from the list of suppliers permanently or for a specific period.
14. The Dean, College of Climate Change and Environmental Science, Vellanikkara, has the right to accept or reject any or all of the offers without assigning any reason.
15. All the rules and regulations applicable to Government quotations will be applicable to this also.
16. In case of any delay in the procurement and installation of the equipment, the supplier/dealer shall be liable to pay a demurrage fee as determined by the College.

To,

1. KAU Website
2. Notice board

Signed by

(Sd/)
DEAN