

**Inter University Centre for
Evolutionary and Integrative Biology
University of Kerala
Kariavattom, Thiruvananthapuram**

NOTIFICATION

Ref no:iCEIB/Pur/EQP/Ten010/2023

dated :1st March 2023

Competitive tenders are invited from the reputed firms/ manufactures/distributors for the supply of following mentioned equipments in the iCEIB, University of Kerala. The tenders shall be submitted to the Hon. Director, Inter-University Centre for Evolutionary and Integrative Biology (iCEIB), University of Kerala, Kariavattom campus, and 695581, Thiruvananthapuram, Kerala on or before **18th March 2023 at 3.30pm.**

1.	Name of the Equipment	1.Chlorophyll Meer Spad-502 Plus 2. 2.Ultrasonic Probe Sonicator
2.	Documents to be submitted.	<u>Technical Bid</u> 1. Address and details of the firm 2. GST registration details 3. Technical details 4. Any other relevant information <u>Financial Bid</u> 1. Financial Quote
3.	Last date of receipt of tender/Bid closing	18/03/2023-3.30 PM
4.	Date and time of Opening Bid	20/03/2023-10.30 AM

Specifications

Equipment Name: CHLOROPHYLL METER SPAD-502Plus	
Measurement subject	Crop leaves
Measurement method	Optical density difference at 2 wavelengths
Measurement area	2 mm×3 mm
Subject thickness	1.2 mm maximum
Subject insertion depth	12 mm (with stopper having position adjustable from 0 to 6 mm)
Light source	2 LED elements
Receptor	1 SPD (silicon photodiode)
Display	LCD panel showing 4-digit measurement value (values shown to first decimal place) and 2-digit number of measurements; Trend graph of values in memory can also be shown.
Display range	-9.9 to 199.9 SPAD units
Memory function	Memory capacity for up to 30 values; Calculation/display of average of data in memory also possible
Power	2 AA-size alkaline batteries
Battery performance	More than 20,000 measurements (when using new alkaline batteries under Konica Minolta test conditions)
Minimum measurement interval	Approx. 2 seconds
Accuracy	Within ± 1.0 SPAD units (for SPAD value between 0.0 and 50.0 under normal temperature/humidity) "*" added to display when measurement exceeds 50.0 SPAD units
Repeatability	Within ± 0.3 SPAD units For SPAD value between 0.0 and 50.0 (with no change in sample position)
Reproducibility	Within ± 0.5 SPAD units
Temperature drift	Within ± 0.04 SPAD units/ $^{\circ}\text{C}$
Operation temperature/humidity range	0 to 50 $^{\circ}\text{C}$; Relative humidity of 85% or less (at 35 $^{\circ}\text{C}$) with no condensation
Storage temperature/humidity range	-20 to 55 $^{\circ}\text{C}$; Relative humidity of 85% or less (at 35 $^{\circ}\text{C}$) with no condensation
Size(WxHxD), Weight	78 x 164 x 49 mm, 200g (excluding batteries)
Other functions	Warning buzzer; User compensation factor
Standard accessories	Depth stop; Strap; 2 AA-size alkaline batteries; Soft case; Reading checker

Equipment Name: Ultrasonic Probe Sonicator	
Low Volume Applications	150 µl to 150ml
Digital wattmeter, alphanumeric display, programmable, LCD screen with user prompts, 1/4" (6mm) probe 630-0435	
POWER SUPPLY	
Net power output:	130 Watts.
Frequency :	20 kHz
Dimensions :	(H x W x D) 4 1/2" x 9 3/4" x 12 1/2" (115 x 250 x 320 mm)
Weight :	7 lbs. (3 kg.)
Timer :	Variable from 1 second to 10 hours
Pulser :	On and Off cycle are independently controllable from 1 Second to 59 seconds Remote actuation compatible.
CONVERTER :	Piezoelectric lead zirconatetitanate crystals (PZT)
Diameter:	1 1/4" (32 mm) , Length: 5 3/4" (146 mm)
Weight:	3/4 lb. (340 g) , Cable length: 5' (1.5 m)
Sound Abating Enclosure	
OUTSIDE DIMENSIONS: (H x W x D)	20" x 12" x 12" (508 x 305 x 305 mm)
INSIDE DIMENSIONS: (H x W x D)	18.5" x 11" x 11" (470 x 280 x 280 mm)

Terms and Conditions

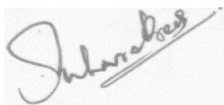
- The price quoted should be that applicable for the educational institutions (with 18% GST)
- **The items should have an onsite warranty for at least 3 years.**
- The firm should be capable to extend immediate service, which in no way should not exceed 24 hours.
- Prices are to be quoted FOR DESTINATION (iCEIB ,University of Kerala, Kariavattom). The prices quoted should clearly indicate the 4 following charges: Price of the equipment including taxes; Price of optional accessories if any; Customs duty if any (after submission of custom and excise exemption certificate); Customs Clearance Charges, transportation charges and installation charges. If these details are not provided it will be considered that the price quoted is inclusive of all charges.

- Technical Bid and Financial Bid must be placed in individual sealed envelopes and these envelopes must be placed inside a bigger envelope.
- **Only one model can be quoted in a tender.**
- **If the tenderer wants to quote for more than one model separate tenders should be submitted. If more than one model is quoted in single tender it will be summarily rejected.**
- Performance Certificate of the specified model should be attached along with the quotations.
- The undersigned reserves the right to reject any or all of the tenders received without assigning any reason thereof.
- If any of the components is found to be defective during the warranty period, the vendor has to replace the defective item immediately at their own cost.
- **Supplier authorization letter and specification compliance sheet to be provided along with the quotation.**
- The interested bidders shall submit their best possible offer before last date to the undersigned.

The bid (Technical and Financial), complete in all respects may be submitted to **Hon. Director, iCEIB, University of Kerala, Kariavattom, Thiruvananthapuram 695581.** On or before **18.03.2023, 3.30 PM.**

Thanking you

Yours sincerely,



Hon. Director