Sealed Tenders are invited from the Firms, Authorized Distributors/Dealers/Supplier having established credentials in terms of Technical, Financial and Managerial capabilities for the supply of Laboratory Equipment for Plant Breeding and Genetics Department (UCA&ES) of Islamia University of Bahawalpur as per details given below, on FOR basis.

<table>
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<th>Tender-No.</th>
<th>Category</th>
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<td>A</td>
<td>Laboratory Equipment: (Qty &amp; Specifications are available in Tender Documents)</td>
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1. Interested bidders may get the Tender Documents containing detailed specifications, terms and conditions from the Purchase Section, Treasurer’s Office Abbasia Campus (Old), the Islamia University of Bahawalpur during office hours 8:00 A.M. to 4:00 P.M. on submission of written application on letter head and a copy of CNIC along with payment of fee of Rs.1000/- (non refundable ) for bidding document OR can be downloaded from the IUB Website www.iub.edu.pk or PPRA website www.ppra.punjab.gov.pk

2. 05% bid security of total value (Refundable) in shape of pay order shall be attached with the bid, otherwise bid will be rejected.

3. Single Stage – Two Envelopes bidding procedure will be adopted as per PPRA Rules 38-2(a). The Envelopes shall be marked as “TECHNICAL PROPOSAL” AND “FINANCIAL PROPOSAL” in legible letters. Financial Proposal of bids found technically non-responsive shall be returned un-opened same day at 12:00 Noon in the presence of the bidders or their authorized representatives by the Purchase Committee.

4. Procurement shall be governed under the Punjab Procurement Rules, 2014.

5. The rates should be quoted inclusive all taxes. Copy of paid bank challan Professional tax also be provided.

6. The Islamia University of Bahawalpur however, reserves the rights to reject all bids at any time prior to acceptance of a bid as per clause 35 of the Punjab Procurement Rules, 2014 and grounds of rejection will be conveyed to the bidders upon their request.

7. Tender should reach in the Treasurer’s Office upto 20-04-2016 by 11:00 A.M. Tenders will be opened on the same day at 11:30 A.M. in the presence of bidders or their representatives.

8. All bids submitted after the given time shall not be accepted.

9. Taxes will be applicable as per Govt. Rules & Regulations.

10. The rates will be valid up for 90-days from the date of opening the tender.

11. In case of closed/forced holidays, tender opening time/date will be considered as the next working day.

Chairman SMPC
The Islamia University of Bahawalpur
Baghdad-ul-Jadeed Campus, Bahawalpur.
Phone: 062-9255473
Applications & Features

Ruggedized Volumetric Water Content Sensor
It is a ruggedized version of our basic, no-frills soil moisture sensor. It accurately measures volumetric water content in soil or soilless media.

Monitor More, Spend Less
The longer lifetime of the sensor helps your budget go further. It delivers research-grade accuracy at a price that makes large sensor networks economically practical. Characterize your site with sensors at multiple depths and locations, even on a tight budget.

Epoxy Body Withstands Tough Field Conditions
This sensor is built to last longer in the field under warmer, wetter conditions. The epoxy body withstands harsh environments and water intrusion.

Stainless Steel Needles for Easy Installation
Two stainless steel needles cut through the soil for better soil-sensor contact and easier installation. Needles are also much more durable than our standard sensor blades.

70 MHz Frequency Capacitance Technology
This frequency minimizes salinity and textural effects, making the device accurate in most soil or soilless media. Can be used in a variety of conditions with the factory calibration.

Plug and Log with Decagon Data Loggers
Install the device, plug it in to the Em50, set the measurement intervals, and start logging data. No programming required.

Database and Graph Measurements
Use this sensor with DataTrac 3 to quickly and easily store, access, and compare soil water content data from a large installation.

Compatible with Many Other Loggers
It accepts a wide range of input voltages and has an easy-to-read voltage output. Voltage correlates to soil water content through a simple linear relationship, making this sensor easy to integrate into a wide variety of non-Decagon loggers.

Advantages of the Sensor
Inexpensive, ruggedized soil moisture sensor
Measure VWC in a harsh environment
Large volume of influence

May be used for both stationary or moving surface measurements; such as rotating rubber wheels or continuous flow dough lines in the food industry. Low mass Stainless Steel leaf sensors allow for excellent response times & reduce surface disturbances. This Sensor is ideal for use on webs, fabrics, closely spaced fins, slots, or any smooth flat surface moving or stationary. The sensing element is designed from flexible hard grade stainless 0.005” thin material for accurate readings while maintaining durability. Standard leaf length is 1” with longer lengths available. The low mass assists in delivering fast, accurate readings. This Sensors come standard with a 32” lead with Stainless Steel over braid.* Max. Temperature for T is 400° C. All EDL Surface Sensors come standard with a 32” lead with stainless steel overbraid. EDL’s Metrology Laboratory can supply any sensor and instrument complete with a report of calibration that is traceable to NIST.
**Specification**

**MEASUREMENT TIME** 10 ms (milliseconds)

**ACCURACY** ±0.03 m³/m³ in typical soils, up to 8 dS/m

With soil-specific calibration: ±0.01 to 0.02 m³/m³ Resolution: 0.001 m³/m³ VWC in mineral soils

**POWER** 3.0 VDC to 15 VDC (absolute maximum) @ 15 mA. Output: 1,000 to

**REQUIREMENTS** 2,500 mV

**OPERATING** -40 to 50° C

**ENVIRONMENT**

**RANGE** 0 to 57% VWC

**MEASUREMENT**

**SENSOR DIMENSIONS** 5.1 cm X 2.4 cm X 2.1 cm, needle length is 5.2 cm

**CONNECTOR TYPES** 3.5 mm (stereo) plug or stripped & tinned lead wires (Pigtail)

**CABLE LENGTH** Sensors come standard with 5 m cable. Custom cable lengths available. Maximum cable length of 40 m.

**CABLE CONNECTOR TYPES** 3.5 mm "stereo" plug, or stripped and tinned lead wires (3)

**Sensing Tip** 0.005" x 0.375" wide flexible Stainless Steel leaf

**Handle** 2" long x 0.343" diameter ceramic

**Lead** 32" long thermocouple grade stranded #20 gauge wire, Teflon® insulated & twisted with Stainless Steel overbraid

**Accuracy** ±3° C or 1% (whichever is greater)

**Response** < 4 seconds to 95% of reading

**Time**

**Terms & Conditions**

1. All material supplied must be brand new strictly conforming to the given specifications. Old, reconditioned or refurbished equipment shall not be acceptable.
2. Only certified dealers/distributors of the following manufacturers are eligible: A standard company from UK, USA, Japan, Singapore, Korean and Europe etc. No CHINA made please.
3. Prices should be FOR delivery to the Department of Plant Breeding and Genetics (UCA&ES), The Islamia University of Bahawalpur. If the items supplied are not according to the required specification/make it will have to be replaced by the firms on their own cost.
4. Offer must be supported with comprehensive technical literature and specifications in original (English) for the materials/goods offered.
5. Validity of rate should be for 90 days from the date of opening of tenders.
6. The vendors will be responsible for any damages during Transit/Delivery. They will also be responsible for any accident and their consequent damages.
7. Draft for proposed agreement after-sales and services (labour and parts) shall be provided along with the bids.
8. Agreement on stamp paper @ 0.25 percent of total cost should be submitted by the firm.