

**Technical assessment report for the lab equipments at the institute of Physics**  
**Dated: 22-12-2020**

Sr. No	Item No.	Items	Quantity	Supplier	Specifications	Remarks
1	1	Survey Meter	1	m/s Muhammad Zahid Enterpriser	Measurement and display in $\mu\text{Sv/h}$ or $\text{mrem/h}$ , dose measurement indication and detect radioactive radiation (alpha, beta, gamma), Measurement range: $1 \mu\text{Sv/h}$ to $10 \text{Sv}$ and X-rays $\text{CuK}\alpha$ radiation.	i. The item at serial no 1-3 offered by m/s Muhammad Zahid Enterpriser is according to the requirements. ii. The specifications are acceptable and can be procured for Modern Physics Laboratory as soon as possible for fulfillment of student's experimentations.
	2	Radiation Protection Apron	2		Radiation-shielding apron, consists of fluid-resistant outer covering encasing thin sheet of lead (Pb) or lead-equivalent material.	
	3	Radiation Monitoring Badges	2		Large display makes, allow quick analysis of measurement, no special setting, reusable	

**Dr. Hafeez Ullah Janjua,**  
Associate Professor,  
Institute of Physics,,  
(Member)

**Dr. Faisal Iqbal,**  
Associate Professor,  
Institute of Physics,  
(Member)

**Prof. Dr. Saeed Ahmad Buzdar,**  
Director,  
Institute of Physics,  
(Chairman).



**Subject: Evaluation of Quotations for Tender-B/2020 Lab equipment's for the Department of Plant Pathology (Opened 11-12-2020).**

It is stated that a tender was floated by The Islamia University of Bahawalpur for the Procurement of laboratory equipment's for the Department of Plant Pathology UCA &ES (Tender B/2020). The SMPC of the University in its meeting held on 11/12/2020 opened the technical proposals. The technical committee of the Department in its meeting held 24-10/ 2020 evaluated the technical proposals. The recommendations of the committee are as under

Item Description	Supplier	Status	Remarks
<b>Technical Specifications:</b> Base unit, Internet based logger, battery 4.5AH, 1.4 Watt solar panel, GS, GPRS, UMTS based, logger, mounting brackets Sensors Layout <ul style="list-style-type: none"> <li>▪ 3 fixed analogue inputs: wind speed, leaf wetness and rain gauge</li> <li>▪ 5 digital inputs: automatic sensor recognition, supporting sensor chains</li> </ul> Built-in Memory : 8MB flash memory Internet Connectivity : GSM - GPRS, EDGE, UMTS Alert/Early warnings : SMS on user configurable/selectable threshold holds Dimensions without sensors : 41 cm L x 13 cm W x 7 cm H Weight without sensors : 2.2 kg Measuring interval : 5 minutes Logging interval : 15 - 120 min (user selectable) Internet contact : Every hour to once in 24 hours (user selectable)	1. Farm Dynamics Pakistan (Pvt) Ltd.	Accepted	As per given requirements
	2. Premier Scientific Technologies	Rejected	<ul style="list-style-type: none"> <li>• No virtual Sensors</li> <li>• No Disease models for different crops</li> <li>• No frost monitoring</li> <li>• Flash memory only 128Kb</li> <li>• No EDGE, UMTS connectivity</li> </ul>

Battery : 6V, 4.5AH, Operating range : -35°C to 80°C Solar panel Dimensions : 13.5 x 13.5 cm, 1.4 Watt solar panel  Origin of the equipment : European			<ul style="list-style-type: none"> <li>Measuring interval is greater than 5 minutes</li> </ul>
Complete with 1) Physical Sensors for: <ul style="list-style-type: none"> <li>Wind speed</li> <li>Air Temperature</li> <li>Relative humidity</li> <li>Global Solar Irradiation</li> <li>Rain fall</li> <li>GPS</li> </ul> 2) Virtual sensors: <ul style="list-style-type: none"> <li>Daily ETo</li> <li>Vapor Pressure Deficit</li> <li>Delta T</li> </ul>			
Prices should be inclusive of the above mentioned based station, sensors and <ul style="list-style-type: none"> <li>Cloud Data Storage</li> <li>Mobile App</li> <li>Web App</li> <li>Weather Forecast Service (for 1<sup>st</sup> year)</li> <li>Annual Work Planning Service</li> </ul> <ul style="list-style-type: none"> <li>Optional Provision:               <ul style="list-style-type: none"> <li>Disease model for over 80 diseases of over 30 different crops</li> </ul> </li> </ul>			
<b>Sensor</b>	<b>Technical Details</b>		

Air Temperature Sensor	Temperature sensor: SMT 160-30 Temperature sensor resolution: 0.1°C Temperature sensor accuracy: ±0.5° C			
Relative Humidity sensor	Relative humidity sensor: HC 103 Relative humidity sensor resolution: 1% Relative humidity accuracy 25% - 90%: 3%			
Rain Gauge	Rain gauge resolution: 0.2mm Rain gauge max rain reporting 12 mm/min Rain gage accuracy: ±5%			
Global Radiation (Solar irradiation)	Global radiation sensor range: 0 ñ 2000 W/m <sup>2</sup> Global radiation sensor resolution: 1 W/m <sup>2</sup> Global radiation sensor response area: 320 nm 1,100 nm Global radiation sensor accuracy: ± 5%			
Wind Speed	Wind speed Range: 0 - 40 m/s Wind speed Gust Survival: 60 m/s Wind speed Anemometer Threshold: 1.4 m/s			
<ul style="list-style-type: none"> <li>○ <b>Weather Forecast:</b> Site specific Weather forecast for 7 days (measured on hourly basis)</li> <li>○ <b>Early-warnings/alerts:</b> Automatic alerts, wwhenever the user set thresholds are over or under-passed (e.g. for Temperatures, Wind speed etc.),</li> <li>○ <b>Frost Monitoring:</b>Frost alerts can be sent to different mobile phone numbers</li> <li>○ <b>Disease model(optional):</b>Diseases can reduce plant quality and yield, and pesticides add significant input costs. Decision-making aids/tools may be provided by proven plant disease models for over 80 diseased of over 30 different crops</li> <li>○ The station can handle up to 400 sensors through the intelligent sensor bus system. The system is extremely reliable due to a non-volatile</li> </ul>				

internal memory and can store more than 1 year of logged data (even without uploading the data on server)

**Note:**

- Rates quoted should be inclusive of all installation charges and applicable taxes.
- Active SIM card of any telecom service (with 100MB/month data) will be provided by the client.

**Additional qualification for Supplier**

Supply and service company should provide

- Letter of authorization from Principal
- Should have supplied similar equipment and services in Pakistan for at least 03 years.
- Should have in-house technical team for training and after sale services.
- Should provide quality certification along with the supplies

--	--	--	--

The selected firms are requested to attend the meeting of SMPC to held in future for opening of Financial Proposals.

Note: Quoted Item not according to the required specification

**Departmental Technical Committee**

1. Dr. Muhammad Naveed Aslam
2. Ms. Ambreen Maqsood
3. Dr. Waqas Ashraf

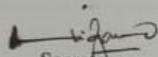
Convener Mr. Naveed Aslam

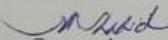
Member Ms. Ambreen Maqsood

Member Dr. Waqas Ashraf

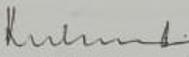
**THE ISLAMIA UNIVERSITY OF BAHAWALPUR**  
**FACULTY OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**TECHNICAL EVALUATION OF THE FIRMS FOR TENDER-C (ENVIRONMENTAL ENGINEERING LABORATORY) IPB-996**

Tender (IPB-779)	Lab. Name (Items)	Muhammad Zahid Enterprises
Tender C	Environmental Engineering Laboratory. (Equipment: 1-7)	Qualified

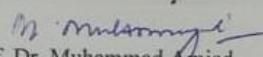
  
Secretary  
Technical Committee

  
Co-opted  
Member

  
Co-opted  
Member

  
Director  
P&D

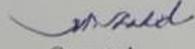
  
Mr. Faseeh-U-Din Gillani  
XEN, IUB

  
Prof. Dr. Muhammad Anjad,  
Chairman, Technical Committee

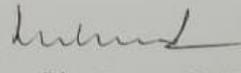
**THE ISLAMIA UNIVERSITY OF BAHAWALPUR**  
**FACULTY OF ENGINEERING**  
**DEPARTMENT OF CIVIL ENGINEERING**  
**TECHNICAL EVALUATION OF THE FIRMS FOR TENDER-D (WORKSHOP PRACTICE LABORATORY) IPB-996**

Tender (IPB-779)	Lab. Name (Items)	Muhammad Zahid Enterprises	Al-Janat Enterprises
Tender D	Workshop Practice Laboratory. (Equipment: 1-6)	Qualified	Qualified
	Workshop Practice Laboratory. (Workshop Tools: 1-33)	Qualified	Qualified

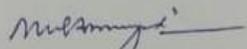
  
 Secretary  
 Technical Committee

  
 Co-opted  
 Member

  
 Co-opted  
 Member

  
 Director  
 P&D

  
 Mr. Faseeh-U-Din Gillani  
 XEN, IUB

  
 Prof. Dr. Muhammad Amjad,  
 Chairman, Technical Committee

**No Firm Partisbate in Tender-E**

**Technical Comparative Statement for the purchase of Lab Equipment's for Entomology,  
Meeting Held on 11.12.2020**

	Primer Scientific Technologies	Advance System	Pakistan Analytic Supply
<b>1</b>	<b>Binocular Compound Microscope</b>		
	<ul style="list-style-type: none"> <li>• 3 watt LED with light intensity control</li> <li>• 360 degree rotation</li> <li>• 30 degree inclination</li> <li>• Interpupillary distance 48 to 75 m</li> <li>• Dioptic adjustment of left eye piece</li> <li>• Eye piece WF 10x/18 mm</li> <li>• Objective: 4x/0.10, 10x/0.25, 40x/0.65, 100x/1.25</li> <li>• Double layer mechanical sliding stage. 125x115 mm, 70x30 mm X-Y movement range. Vernier scale on two axes, accuracy 0.1 mm.</li> <li>• Adjustable tension of coarse focusing knob</li> <li>• Abbe N.A. 1.25 condenser, adjustable</li> <li>• Made: Italy</li> </ul>	<ul style="list-style-type: none"> <li>• 3 Watt LED light with intensity control</li> <li>• 360 degree rotation</li> <li>• 30 degree inclination</li> <li>• Interpupillary distance 48 to 75 m</li> <li>• Dioptic adjustment of left eye piece</li> <li>• Eye piece WF 10x/20 mm</li> <li>• Objective: 4x, 10x, 40x, 100x</li> <li>• Scratch resistant 152/197x 131 mm stage, integrated 75x36 mm X-Y rackless mechanical stage. Vernier scale included.</li> <li>• Adjustable tension of coarse focusing knob</li> <li>• Abbe N.A. 1.25 condenser, adjustable</li> <li>• Made: Netherland</li> </ul>	<ul style="list-style-type: none"> <li>• LED light with intensity control</li> <li>• 360 degree rotation</li> <li>• 30 degree inclination</li> <li>• Interpupillary distance 50 to 75 m</li> <li>• Dioptic adjustment of left eye piece</li> <li>• Eye piece WF 10x/18 mm</li> <li>• Objective: 4x, 10x, 40x, 100x</li> <li>• Double plate mechanical stage 145x140 mm with Vernier scales. Travel area 76x50 mm</li> <li>• Adjustable tension of coarse focusing knob</li> <li>• Abbe N.A. 1.25 condenser, adjustable</li> <li>• Made: Country of origin China</li> </ul>
<b>Status</b>	Technically accepted	Technically accepted	Technically accepted
<b>2</b>	<b>Grain Moisture Meter</b>		
	<ul style="list-style-type: none"> <li>• High resolution load cell weighing system (136 L and 62 L)</li> <li>• Halogen infrared lamp</li> <li>• LCD with backlight with adjustable contrast</li> <li>• Time (1-99 min) and auto stop operating modes</li> </ul>	Nil	Nil

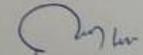
	<ul style="list-style-type: none"> <li>• Temperature range: 35-160 C/1C</li> <li>• Drying resolution 0.001% - 0.01% - 0.1%</li> <li>• Capacity 160 g</li> <li>• Response time <math>\leq</math> 4 sec</li> <li>• Pan diameter 100 mm</li> <li>• Made: Italy</li> </ul>		
Status	Technically accepted		
3	<b>Horizontal Drying Oven</b>		
	<ul style="list-style-type: none"> <li>• Capacity: 49 L</li> <li>• Shelves: 2 EA</li> <li>• Type: Natural Convection type</li> <li>• Range: <math>Amb \pm 10^{\circ}C</math> to <math>250^{\circ}C</math></li> <li>• Working Temp: <math>200^{\circ}C</math></li> <li>• Controller: Digital PID controller</li> <li>• Material: Stainless steel plater</li> <li>• Insulation: Glass wool</li> <li>• Power: AC 220 50/60 HZ</li> <li>• Heating capacity: 800 W</li> <li>• Made: Korea</li> </ul>	Nil	Nil
Status	Technically accepted		



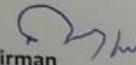
**Dr. Muhammad Waqar Hassan**  
Assistant Professor,  
Member/Convener



**Dr. Muhammad Aslam Farooqi**  
Assistant Professor  
Member



**Dr. BushraSaddiq**  
Lecturer  
Member



**Chairman**  
Department of Entomology

**Technical assessment report for the Equipments at the Institute of Physics (IPB-996/G)**

Sr. No.	Item No.	Items	Quantity	Supplier	Specifications	Remarks
1	1	Triple Grating Spectrometer/ Monochromator IHR320 core3 with 510-04-120,510-05-120, 510-21-120, MSL-13FN7,MSL-13FX7	1	m/s Divine Business Allied Corporation	Monochromator/Spectrometer with triple grating turret, wavelength range covered by gratings is from UV to 4500 nm, with one entrance and two exit slits	i. The whole unit; main item 1 along with its all accessories (i-viii) offered by 'Divine Business corporation' are according to requirements. ii. The specifications are acceptable and the committee recommends the procurement as soon as possible for fulfillment of experimentation.
	<b>Accessories</b>					
	(i)	808nm fiber coupled Laser with FIB-100NIR-SMA-2	1		Wavelength 808nm, Power 450 mW, including fiber cable	
	(ii)	White light Source with LPS-QTH	1		Halogen light source in LSH series housing with regulated power supply	
	(iii)	InSb Detector, DSS-ISO20L with 1427C, J30646, BNC-T adapter	1		InSb Detector having round window 3-4mm, Liquid Nitrogen cooled, including housing for the detector, including required power supply	
	(iv)	Lock in Amplifier CLI-SR810 with SpectraACQ3	1		DSP-Lock in Amplifier with Spectra ACQ3 for data acquisition, including all cables	
	(v)	Optical Frequency Chopper System	1		Free optical chopper system including its base to be mounted on optical table.	
	(vi)	Optical Table	1		Optical Table, 1 m x 2 m x 210 mm, with 700 mm Tall Active Isolator Legs.	
	(vii)	Software	1		Synergy JY software to control the whole unit.	
(viii)	Miscellaneous		4 main leads and 2 USB cables			
2	1	Triple Grating Spectrometer/ Monochromator	1	m/s Proficient Engineers	Monochromator/Spectrometer with triple grating turret, wavelength range covered by gratings is from UV to 4500 nm, with one entrance and two exit slits	i. The whole unit; main item 1 along with its all accessories (i-viii) offered by 'Proficient Engineers' are according to requirements. ii. The specifications are acceptable and can be procured as soon as possible for fulfillment of experimentation.
	<b>Accessories</b>					
	(i)	808 nm fiber coupled Laser	1		Wavelength 808 nm, Power 450 mW, including fiber cable	
	(ii)	White light Source	1		Halogen light source with housing including regulated power supply	
(iii)	InSb Detector,	1	InSb Detector having round window 3-4mm, Liquid			

Zahida

	(iv)	Lock in Amplifier	1		Nitrogen cooled, including housing for the detector, including required power supply	
	(v)	Optical Frequency Chopper System	1		DSP-Lock in Amplifier, including all cables	
	(vi)	Optical Table	1		Free optical chopper system including its base to be mounted on optical table.	
	(vii)	Software	1		Optical Table, 1 m x 2 m x 210 mm, with 700 mm Tall Active Isolator Legs.	
	(viii)	Miscellaneous			BENWIN Plus software to control the whole unit.	
					4 main leads and 2 USB cables,	
3	1	Triple Grating Spectrometer/ Monochromator with all accessories	1	m/s Multy solution Traders	Monochromator/Spectrometer with triple grating turret, wavelength range covered by gratings is from UV to 4500 nm, with one entrance and one exit slits	<ul style="list-style-type: none"> <li>i. The whole unit; offered by 'multy solution' is not according to the requirements,</li> <li>ii. Main item has not two exit slits, Optical chopper is not free to be mounted,</li> <li>iii. The specifications are not acceptable for the fulfillment of experimentation. Therefore, the committee does not recommend the purchase from this company.</li> </ul>
4		Triple Grating Spectrometer/ Monochromator	1	m/s Rays Technologies	Not quoted	<ul style="list-style-type: none"> <li>i. Rays technologies did not quoted the whole unit particularly the main item.</li> <li>ii. Rays technologies only quoted few items from accessories.</li> <li>iii. This is not acceptable for the fulfillment of the experimentation. Therefore, the committee does not recommend the purchase from this company.</li> </ul>
	<b>Accessories</b>					
	(iv)	Lock in Amplifier	1		DSP-Lock in Amplifier, including all cables	

Zaruda

*[Handwritten signature]*

*[Handwritten signature]*

5	1	Triple Grating Spectrometer/ Monochromator MonoRA323i	1	m/s Shah Scientific Solutions	Triple grating monochromator with one entrance and two exit slits	<p>i. Shah Scientific solution offered the main item with all accessories However there are no proper specifications for 'white light source,</p> <p>ii. This is very vital part of whole unit and system can't properly work without it. This whole unit offered by Shah scientific is not acceptable for the fulfillment of the experimentation. Therefore, the committee does not recommend the purchase from this company.</p>
		<b>Accessories</b>				
	(iii)	White light Source	1		No specifications given	

*Zahida*  
**Dr. Zahida Batool,**  
 Assistant Professor,  
 Institute of Physics,  
 (Principal Investigator)  
**ASSISTANT PROFESSOR**  
 Institute of Physics  
 The Islamia University of Bahawalpur

*Hafiz*  
**Dr. Hafeez Ullah Janjua,**  
 Associate Professor,  
 Institute of Physics,,  
**ASSOCIATE PROFESSOR**  
 Institute of Physics  
 The Islamia University of Bahawalpur

*Faisal*  
**Dr. Faisal Iqbal,**  
 Associate Professor,  
 Institute of Physics,  
 (Member)  
**ASSOCIATE PROFESSOR**  
 Institute of Physics  
 The Islamia University of Bahawalpur

*Saeed*  
**Prof. Dr. Saeed Ahmad Buzdar,**  
 Director,  
 Institute of Physics,  
 (Chairman).  
**DIRECTOR**  
 Institute of Physics  
 The Islamia University of Bahawalpur