

## BID EVALUATION REPORT

1. Name of Procuring Agency :
2. Tender Reference No. :

Sindh Agriculture University, Tandojam.

NIT No: PO/SAU-2025/110-13 Dated:- 14-02-2025

3. Tender Description/Name of work/Item :

**TENDER FOR PROCUREMENT OF EQUIPMENT FOR PRINCIPAL INVESTIGATOR, PROJECT ENTITLED "STRENGTHENING OF POSTGRADUATE LABORATORY FOR COMPREHENSIVE EVALUATION OF FRUIT AND ROOT INTEGRITY" FOR DEPARTMENT OF HORTICULTURE, FACULTY OF CROP PRODUCTION SINDH AGRICULTURE UNIVERSITY, TANDOJAM**

4. Method of Procurement :

Single Stage - Two Envelopes

5. Tender Published :

Hoisted on EPADS-S-250261572 Dated: 17-02-2025 and SAU web

6. Total Bid documents Sold :

02 Nos.

7. Total Bids Received :

02 Nos.

8. Technical Bid Opening date:

04.03.2025 at 12.30 PM

9. No. of Bid technically qualified :

01 No.

10. Bid(s) Rejected :


01 No.


11. Financial Bid Opening date :

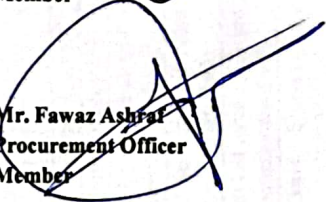
24.03.2025 at 11.30 AM

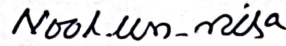
12. Bid Evaluation Report :

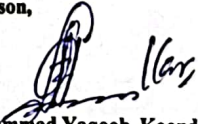
S#	Name of Firm or Bidder	Procurement of Equipment	Cost offered by the Bidder	Ranking terms of cost	Comparison with Estimated cost	Reasons for acceptance/rejection	Remarks
1	M/S Reidius Technologies, Multan	Root Analysis System included PC analysis Software with Compatible Laptop 13th Generation for above	2,698,660	1st Lowest	N/A	Accepted	<u>Award to M/S Reidius Technology, Multan quoted lowest bid. Therefore, Reidius Technology, Multan is qualified financially and technically</u>
2	M/S Rizvi & Company, Karachi	Root Analysis System included PC analysis Software	3,240,000	2nd Highest		Rejected	
Rupees Two Million Six Hundred Ninety Eight Thousand Six Hundred Sixty Only Total Amount Rs.							2,698,660

  
Prof. Dr. Akeel Ahmed Memon  
Department of Animal Breeding & Genetics  
Convener

  
Mr. Inam Husain Umar  
Scientific Officer (A.R.I Tandojam)  
Member

  
Mr. Fawaz Ashraf  
Procurement Officer  
Member

  
Dr. Noor-un-nisa  
Focal Person,




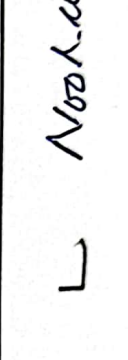
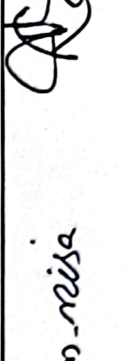
  
Dr. Muhammad Yaqoob Koondhar  
Assistant Professor, ITC  
Member

**COMPARATIVE STATEMENT TENDER FOR PROCUREMENT OF EQUIPMENT FOR PRINCIPAL INVESTIGATOR, PROJECT ENTITLED "STRENGTHENING OF POSTGRADUATE LABORATORY FOR COMPREHENSIVE EVALUATION OF FRUIT AND ROOT INTEGRITY" FOR DEPARTMENT OF HORTICULTURE, FACULTY OF CROP PRODUCTION SINDH AGRICULTURE UNIVERSITY, TANDOJAM**

Sr. #	Description	Qty	M/s. Reidius Technologies, Multan	M/s. Rizvi & Company, Karachi	Remarks
1	<p><b>Root Analysis System with Laptop</b></p> <p>Image preprocessing</p> <ul style="list-style-type: none"> <li>• Binarization: when the target and background are similar, adjust the threshold to high light the target contour.</li> <li>• after setting a pixel value, the software automatically removes the independent points smaller than the pixel in the picture, so as to ensure that the analysis is not affected by impurities and is more accurate. 1.3 Free selection of target area: analyze a part of root system.</li> </ul> <p>Auxiliary measurement function</p> <ul style="list-style-type: none"> <li>• Zoom in and zoom out: after the user inputs the scanned pixels, the software automatically converts the actual length.</li> <li>• Automatic calibration: after the user inputs the scanned pixels, the software automatically converts the actual length.</li> </ul> <p>Save pictures, export and add data</p> <ul style="list-style-type: none"> <li>• Save pictures and data export: export pictures or data to the specified folder. 3.2 Data addition: append the data to the bottom of the specified file. Automatic analysis in large quantities</li> <li>• After opening more than one picture, the analysis will be carried out automatically, and the analysis progress will be displayed. After the analysis is completed, it will be automatically exported to the fixed folder.</li> </ul> <p>Original to original pictures:</p> <ul style="list-style-type: none"> <li>• After the analysis or operation of the picture, restore the picture to the state when it was just opened.</li> </ul> <p>Manual correction analysis results:</p> <ul style="list-style-type: none"> <li>• Merge bifurcation, delete connection, merge apices, disconnect, deburring The core function of the products on the market is root phenotype analysis, which is analyzed by PC software after obtaining images by scanning means. After the analysis, in addition to the morphological parameters of roots, structural parameters, including structural parameters and geometric (topological) parameters distinguished from root diameter and color, are also generated. Although the products on the market have complete functions, the software interface is complex and the operation threshold is high, which leads to the root phenotype analysis can not be popularized. After studying the usage scenarios of the target users, we developed this client-side software for measuring and analyzing root phenotype.</li> <li>• It has clear interface design and modular function design, which makes the learning cost of software products low and easy to use.</li> <li>• Clear interface design and modular function design. The cost of learning is lower, and the operation is more convenient and fluent. The analysis results are more accurate</li> <li>• Overall parameters: Number of apices: the total number of apices, equal to the number of terminal junctions</li> </ul> <p>Range: 0-1000 Accuracy: error &lt; 5% Root length: the total length of root system, including main root and secondary root Range: 0-10000 mm</p> <ul style="list-style-type: none"> <li>• Accuracy: error &lt; 3.65%</li> <li>• Average diameter: the average diameter of the root system</li> <li>• Range: 0-20 mm Accuracy: error &lt; 0.04%</li> <li>• Projection area: the projection area of the whole root system</li> <li>• Range: 0-200000 mm<sup>2</sup></li> <li>• Accuracy: error &lt; 4.02%</li> <li>• Surface area: the total surface area</li> <li>• Range: 0-1000000 mm<sup>2</sup></li> <li>• Accuracy: error &lt; 3.75%</li> <li>• Volume: overall volume Range: 0-2000000000 mm<sup>3</sup></li> <li>• Accuracy: error &lt; 3.82%</li> <li>• Topological analysis parameters (relatively complete root system required)</li> </ul>	01 No.	2,698,660	3,240,000	<p><i>Award to M/S Reidius Technology, Multan quoted lowest bid. Therefore, Reidius Technology, Multan is qualified financially and technically</i></p>
<b>Total Price</b>					<b>2,698,660.00</b>

**Two Million Ninety Six Thousand Eight Hundred Sixty Only Total Amount Rs. 2,698,660**

The supplier M/s. Reidius Technology, Multan is found the lowest bid/ rates which are reasonable and acceptable therefore order is issued to M/s. Reidius Technology.

**Prof. Dr. Akcel Ahmed Memon**  
Department of Animal Breeding & Genetics  
Convener

**Mr. Iqbal Hussain Dinar**  
Scientific Officer  
(A.R.I Tandojam) Member

*Noor-un-nisa*

**Dr. Noor-un-nisa**  
Focal Person  
Co-Opted Member

**Dr. Muhammad Yaqoob Koondhar**  
Assistant Professor, ITC  
Member

**Mr. Pawaz Ashraf**  
Procurement Officer  
Member

## MINUTES OF BID OPENING MEETING

The meeting of the University Purchase Committee, Sindh Agriculture University, was held on 24.03.2025 at 11.30 A.M for the opening of financial bids received in respect for sealed tender for procurement of equipment for Principal Investigator, Project Entitled "Strengthening of Postgraduate Laboratory for Comprehensive Evaluation of Fruit and Root Integrity" for Department of Horticulture, Faculty of Crop Production Sindh Agriculture University, Tandojam. The meeting was attended by all members of the purchase committee and representative of bidders (Attendance sheet is enclosed).

The following suppliers participated and submitted their bids accordingly.

1. M/s. Reidius Technology, Multan
2. M/s. Rizvi & Company, Karachi


The bids were opened at 11.30 A.M in presence of above mentioned participants and rates quoted by bidders were read aloud and encircled by Chairman of the Purchase Committee. All the members of the procurement committee signed each and every page of bid. The bids did not contain any over-writing or cutting. Following is the details of bids announced:

Sr. No.	Procurement of Equipment	M/s. Reidius Technologies Multan	M/s. Rizvi & Company, Karachi	Remarks
01.	Root Analysis System included PC Analysis Software With Compatible with Laptop 13 <sup>th</sup> Generation for above	Rs. 2,698,660	Rs. 3,240,000	<b><u>Award to M/s. Reidius Technologies, Multan quoted lowest bid and. Therefore M/s. Reidius Technologies, Multan qualified financially and technically.</u></b>
Total Amount Rs.		2,698,660		
<b>Two Million Six Hundred Ninety Eight Thousand Six Hundred Sixty Only</b>			<b>Total Amount Rs. 2,698,660</b>	

The committee shall examine all the bids as per the qualification/ eligibility criteria provided in the bidding documents, arithmetical checks and verify the documents and bid security submitted by the bidder. The Committee after detailed discussions and deliberations passed the following resolution.

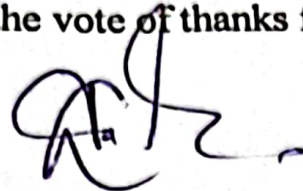
### Resolution:

*"Further It was resolved that, M/s. Reidius Technologies, Multan may be selected amounting to Rs. 2,698,660 (Two Million Six Hundred Ninety Eight Thousand Six Hundred Sixty Only), since it fulfills the required criteria as set-forth in tender document. Further, it was resolved that, M/s. Rizvi & Company, Karachi quoted high rates. It is therefore, university purchase committee and technical committee rejected". Committee recommended that M/s. Reidius Technologies may be issued the purchase order as tabulated above.*

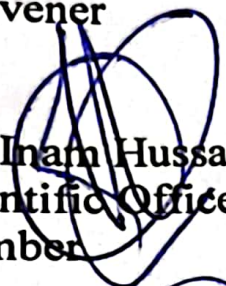
  
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The received call deposits/Earnest money from different firms may be refunded except the lowest / highest bidders”.


The meeting ended with the vote of thanks from and to the chair.



Prof. Dr. Akeel Ahmed Memon  
Department of Animal Breeding & Genetics  
Convener



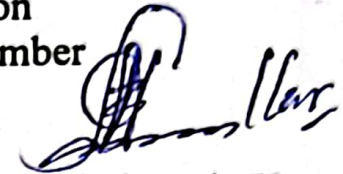
Mr. Inam Hussain Unar  
Scientific Officer (A.R.I Tandojam)  
Member



Mr. Fawaz Ashraf  
Procurement Officer  
Member

Noor-un-nisa

Dr. Noor-un-nisa  
Focal Person  
Co-opt Member



Dr. Muhammad Yaqoob Koondhar  
Assistant Professor, ITC  
Member

Director Finance  
In Ward 297  
Dated 28/3/23  
SAU, Tandojam

**BIDDERS QUALIFICATION REPORT / ELIGIBILITY CRITERIA TENDER FOR PROCUREMENT OF EQUIPMENT FOR PRINCIPAL INVESTIGATOR, PROJECT ENTITLED "STRENGTHENING OF POSTGRADUATE LABORATORY FOR COMPREHENSIVE EVALUATION OF FRUIT AND ROOT INTEGRITY" FOR DEPARTMENT OF HORTICULTURE, FACULTY OF CROP PRODUCTION SINDH AGRICULTURE UNIVERSITY, TANDOJAM**

Sr. No.	BIDDERS QUALIFICATION REPORT / ELIGIBILITY CRITERIA	M/s. Reidius Technology, Multan		M/s. Rizvi & Company, Karachi		Remarks
		Yes	No	Yes	No	
1	Tender Fees received as per requirement?	Yes		Yes		
2	The Call deposits / Earnest money 2%	Yes		Yes		
3	The company must be registered with Income Department (Valid NTN Certificate, copies must be attached).	Yes		Yes		
4	The company must be registered Sales Tax Department (Valid STRN Certificate, copies must be attached).	Yes		Yes		
5	Annual turn-over for last three (03) years (minimum 2.5 million) (Copies of Bank Statement must be attached).	Yes		Yes		
6	The company must have 5 years + experience of similar projects . (POs must be attached)	Yes		Yes		
7	Minimum three (03) years income & sales tax return (Copies must be enclosed).	Yes		Yes		
8	Authorization letter from Manufacturer (Copy must be attached as per provided sample).	Yes		Yes		
9	The bidder will have to attach the Catalogue/Profile/Video clip demo of the item which he wishes to supply.	Yes		Yes		
10	The laboratory Equipment supplied must accompany a written Agreement / legal Bond by the supplier, to replace, repair and maintain during the warranty period by the participating firm.	Yes		Yes		
11	The participating firms are to provide the sole distributors/ Suppliers Certificate for the laboratory Equipment, in the country as may be applicable.	Yes		Yes		
12	Bidder must submit the list of places / Institutes with the date of installation where your firm has installed /supplied the quoted Laboratory Equipment.	Yes		Yes		
13	The bidders should submit affidavit to the effect all the documents, particulars & information furnished are true & correct	Yes		Yes		
		Qualified / Disqualified		Qualified		Qualified
M/s. Reidius Technology, Multan and M/s. Rizvi & Company, Karachi both are qualified Bid Qualification Report.						

*(Signature)*

Prof. Dr. Akeel Ahmed Memon  
Department of Animal Breeding & Genetics  
Convener

*Noor-un-nisa*  
Dr. Noor-un-nisa  
Focal Person  
Co-Opted Member

*(Signature)*  
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Procurement Officer  
Member

Mr. Inam Hussain Unar  
Scientific Officer  
(A.R.T Tandojam) Member

Dr. Muhammad Saqoob Koondhar  
Assistant Professor, ITC  
Member

TECHNICAL EVALUATION REPORT TENDER FOR PROCUREMENT OF EQUIPMENT FOR PRINCIPAL INVESTIGATOR, PROJECT ENTITLED "STRENGTHENING OF POSTGRADUATE LABORATORY FOR COMPREHENSIVE EVALUATION OF FRUIT AND ROOT INTEGRITY" FOR DEPARTMENT OF HORTICULTURE, FACULTY OF CROP PRODUCTION SINDH AGRICULTURE UNIVERSITY, TANDOJAM

Sr. No.	Description	M/s. Reidius Technology, Multan		M/s. Rizvi & Company, Karachi		Remarks
		Yes	No	Yes	No	
1	<p><b>Root Analysis System. Included PC Analysis software with all accessories.</b></p> <p>Image preprocessing</p> <ul style="list-style-type: none"> <li>• Binarization: when the target and background are similar, adjust the threshold to high light the target contour.</li> </ul> <p>Impurity elimination:</p> <ul style="list-style-type: none"> <li>• after setting a pixel value, the software automatically removes the independent points smaller than the pixel in the picture, so as to ensure that the analysis is not affected by impurities and is more accurate. 1.3 Free selection of target area: analyze a part of root system.</li> </ul> <p>Auxiliary measurement function</p> <ul style="list-style-type: none"> <li>• Zoom in and zoom out: zoom in and out of the picture so as to observe and adjust the local root system.</li> <li>• Automatic calibration: after the user inputs the scanned pixels, the software automatically converts the actual length.</li> </ul> <p>Save pictures, export and add data</p> <ul style="list-style-type: none"> <li>• Save pictures and data export: export pictures or data to the specified folder.</li> </ul> <p>3.2 Data addition: append the data to the bottom of the specified file.</p> <p>Automatic analysis in large quantities</p> <ul style="list-style-type: none"> <li>• After opening more than one picture, the analysis will be carried out automatically, and the analysis progress will be displayed. After the analysis is completed, it will be automatically exported to the fixed folder.</li> </ul> <p>Original to original pictures:</p> <ul style="list-style-type: none"> <li>• After the analysis or operation of the picture, restore the picture to the state when it was just opened.</li> </ul> <p>Manual correction analysis results:</p> <ul style="list-style-type: none"> <li>• Merge bifurcation, delete connection, merge apices, disconnect, deburring</li> </ul> <p>The core function of the products on the market is root phenotype analysis, which is analyzed by PC software after obtaining images by scanning means. After the analysis, in addition to the morphological parameters of roots, structural parameters, including structural parameters and geometric (topological) parameters distinguished from root diameter and color, are also generated. Although the products on the market have complete functions, the software interface is complex and the operation threshold is high, which leads to the root phenotype analysis can not be popularized. After studying the usage scenarios of the target users, we developed this client-side software for measuring and analyzing root phenotype.</p> <ul style="list-style-type: none"> <li>• It has clear interface design and modular function design, which makes the learning cost of software products low and easy to use.</li> <li>• Clear interface design and modular function design. The cost of learning is lower, and the operation is more convenient and fluent. The analysis results are more accurate</li> </ul> <p>Overall parameters: Number of apices: the total number of apices, equal to the number of terminal junctions Range: 0-1000 Accuracy: error &lt; 5% Root length: the total length of root system, including main root and secondary root Range: 0-10000 mm</p> <ul style="list-style-type: none"> <li>• Accuracy: error &lt; 3.65%</li> <li>• Average diameter: the average diameter of the root system Range: 0-20 mm Accuracy: error &lt; 0.04%</li> <li>• Projection area: the projection area of the whole root system Range: 0-200000 mm<sup>2</sup></li> <li>• Accuracy: error &lt; 4.02%</li> <li>• Surface area: the total surface area</li> </ul>	Yes	-	-	No	Principal Investigator evaluates M/s. Reidius Technologies, Multan is technically qualified provides GXY-B more advanced features including especially topological analysis. This may also used for Rhizobium analysis and detailed segmentation for more in depth root studied. The provision of latest laptop is must for remaining of this plant Root analysis system

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- Range: 0-1000000 mm<sup>2</sup>
- Accuracy: error < 3.75%
- Volume: overall volume Range: 0-2000000000 mm<sup>3</sup>
- Accuracy: error < 3.82% 2.
- Topological analysis parameters (relatively complete root system required)
- Quantity: the sum of the number of roots at all levels
- Range: 0-1,00 Connection number: the total number of connections on the lateral roots at all levels Range: 0-100 Length: the total length of lateral roots at all levels Range: 0-10000 mm Diameter: average diameter of lateral roots at all levels Range: 0-20 mm
- Surface area: the total surface area of lateral roots at all levels
- Range: 0-1000000 mm<sup>2</sup> Volume: the total volume of lateral roots at all levels
- Range: 0-200000000 mm<sup>3</sup> Projection area: the sum of the projected areas of lateral roots at all levels Range: 0-200000 mm. compatible laptop 13th generation.

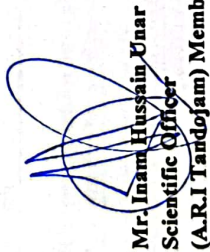
Model No.  
Preferably made in  
Qualified/Disqualified

GXT-B  
China  
Qualified

GXT-A  
China  
Disqualified



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