

**GOVERNMENT OF PAKISTAN  
MINISTRY OF ENERGY (PETROLEUM DIVISION)  
GEOLOGICAL SURVEY OF PAKISTAN  
LAHORE**



**Tender Documents**

**(Single Stage Two Envelope procedure)  
For**

**PURCHASE OF ANALYTICAL AND SURVEYING EQUIPMENT  
(FY 2024-25)**

**Director Procurement (AGM)  
Geological Survey of Pakistan  
Trade Center near Expo Center, Johar Town, Lahore.  
Ph. 042-99232933-4, Fax. 042-99232940**

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**Tender Notice**  
**INVITATION TO BID**

**Government of Pakistan**  
**Geological Survey of Pakistan, Lahore**

Bids are invited on **FOR Basis** from the GST, Income Tax registered firms/suppliers/ who are on the active taxpayer list of the Federal Board of Revenue for the supply of **Machinery & Equipment** as per specifications provided in the Tender Documents.

<b>LOT</b>	<b>Details</b>	<b>Bid Security</b>
LOT-1	Handheld XRF	Rs. 400,000/-
LOT-2	Benchtop FTIR	Rs. 200,000/-
LOT-3	Drones for Surveying	Rs. 50,000/-
LOT-4	Hyperspectral Imaging System	Rs. 500,000/-

**Conditions & Regulations:**

- a) The last date of submission of bids at PPRA E-PADS ([www.eprocure.gov.pk](http://www.eprocure.gov.pk)) is **27-03-2025, till 1200** hours. Bids must accompany bid Security as mentioned above in the shape of a pay order/CDR in favor of Director General, Geological Survey of Pakistan.
- b) The complete tender documents are available at <https://eprocure.gov.pk/#/auth>.
- c) This tender notice is also available on [www.gsp.gov.pk](http://www.gsp.gov.pk), PPRA website [www.ppra.org.pk](http://www.ppra.org.pk).
- d) The tender will be processed through PPRA E-PADS (<https://eprocure.gov.pk/#/auth>).
- e) The time for electronic bid submission is until **27-03-2025, till 1200 Hrs**. Bidders are advised to upload the copy of the pay order/CDR electronically and must submit in-Original along with the sealed hard copies of the bids at the address provided below before the closing of bid submission time.
- f) Technical Bids/proposals will be opened on the **same date at 1230 Hrs** in the presence of bidders or their authorized representatives if they opt to attend.

**SAJJAD KARAMAT WAHLA**  
**Director Procurement (AGM)**  
**Geological Survey of Pakistan**  
**Trade Centre near Expo Centre, Lahore.**  
**Phone. +92-42-99232933-4, Fax. 042-99232940**

## Tender Submission

### *General Guidelines*

- a) The bids will be submitted and processed via E-PADS.
- b) Single stage – Two envelopes, procedure would be adopted for opening of bids.
- c) The mandatory documents and Technical Evaluation Criteria for each LOT are provided in the relevant LOT.
- d) Bidding company/firm may participate in whole tender items or any number of items. The bidder who may choose to participate in more than one LOT of this tender must conform to the relevant mandatory and technical requirements.
- e) The hard copy of the bid shall comprise a single package containing two separate envelopes. Each envelope shall contain separately the Financial Proposal and the Technical Proposal. The bidders who wish to participate in more than one lot are advised to submit a separate financial bid envelope for each lot.
- f) The envelopes shall be marked as “FINANCIAL PROPOSAL” and “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion.
- g) The original Pay order/CDR of bid security must be placed in the envelope marked as “TECHNICAL PROPOSAL”.

### *Technical Proposal*

- a) The technical proposal must include all mandatory documents and documents required for technical evaluation (where applicable).
- b) The technical proposal must include detailed specifications against the requirements outlined in the tender including manufacturer/brand name, model.

### *Financial Proposal*

- a) The Prices quoted in PKR must be inclusive of all duties/taxes, approval fee (where applicable), packing, and delivery charges. However, if GST is applicable, the same should be shown separately.
- b) The Prices mentioned in the tender will be treated as firm till the completion of Purchase Order.
- c) The Prices must be stated for each item separately.
- d) Offers must be valid for **120 days**.

**LOT-1**

**Purchase of Handheld XRF**

*List of Mandatory Documents for Eligibility*

Sr.	Documents.	Remarks
1	Certificate of Company/Firm Registration under the laws of Pakistan with minimum 03 years of Relevant Experience	<ul style="list-style-type: none"> <li>• Valid certificates/e-certification from concerned regulator/ authority is required.</li> <li>• PO/ Completion Certificates for supply of similar equipment supplied</li> </ul>
2	Registration of NTN with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
3	Registration of General Sales Tax (GST) with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
4	Training at Original Equipment Manufacturing (OEM) Facility.	The company will provide assurance on stamp paper regarding OEM facility training of Two (2) officers for Handheld XRF with no burden on Govt. of Pakistan.
5	Manufacturer/Dealer Authorization Letter/certificate (MAL) is mandatory.	Valid Authorization Certificate
6	The bidder should have a fully operational office/ Head office in any major city of Pakistan.	Proof of Office setup and address
7	Affidavit that the firm is neither blacklisted nor involved in any active litigation in Pakistan.	Annexure-6
8	Pay Order/Call Deposit Receipt/ Bank Draft for Bid Security of Rs. 400,000/-.	Original is required.
9	At least 50 million cumulative turnover for the last three (3) years	Bank statement for last three (03) years
10	Service contract for 1 year at no additional cost after expiry of warranty period	Affidavit on stamp paper

### *Technical Evaluation, Procedure and Criteria*

- a) Initially, only the “TECHNICAL PROPOSAL” shall be opened.
- b) The technical proposals shall be evaluated for compliance with mandatory documents for eligibility and technical specifications of items being procured through this tender, without reference to the price. The technical proposal which does not conform to these requirements will be rejected.
- c) Compliance with all mandatory and technical requirements is a prerequisite for eligibility to participate in the Financial Bid opening.
- d) The bidder must score **65% marks** in Technical Scoring Criteria for Bidders.
- e) The Financial Proposal of bids found technically non-responsive or unqualified shall be returned un-opened to the respective bidders.
- f) The “FINANCIAL PROPOSAL” shall be opened in the presence of Procurement Committee members and the representatives of the technically qualified bidders who may choose to attend.
- g) The opened financial proposals will be thoroughly evaluated, and total amounts will be verified for accuracy. The contract will be awarded to the lowest-priced bid that is fully compliant with all requirements.
- h) The bidders will provide a performance guarantee equivalent to **5%** of the bid value at the time of signing of the contract agreement.
- i) The Purchase Order will be issued after signing of the contract agreement.
- j) The place of delivery of equipment will be the **DIVISIONAL OFFICE, GEOLOGICAL SURVEY OF PAKISTAN, JOHAR TOWN, LAHORE.**



## Technical Scoring Criteria for Bidders

Parameter	Description	Marks	Marks Obtained
<b>Past Performance and Experience (Total marks 60)</b>	<ul style="list-style-type: none"> <li>• <b>Proven Experience in Delivering Similar Equipment</b> <ul style="list-style-type: none"> <li>○ Number of similar projects completed <b>(10 Marks for each Project completed, Maximum 50 Marks)</b></li> </ul> </li> </ul>	<b>50 Marks</b>	
	<ul style="list-style-type: none"> <li>• <b>Client Feedback/Completion Certificate</b> <ul style="list-style-type: none"> <li>○ Testimonials and performance reviews from previous clients <b>(2.5 Marks for each, Maximum 10 Marks)</b></li> </ul> </li> </ul>	<b>10 Marks</b>	
<b>After-Sales Support and Service (Total marks 40)</b>	<ul style="list-style-type: none"> <li>• <b>Warranty and Service Agreements</b> <ul style="list-style-type: none"> <li>○ Availability of service and maintenance contracts of similar nature <b>(2.5 mark for each service contract)</b></li> </ul> </li> </ul>	<b>(10 Marks Maximum)</b>	
	<ul style="list-style-type: none"> <li>• <b>Availability of Local Technical Support</b> <ul style="list-style-type: none"> <li>○ Number of technical staff available for support and operations: <b>02 Mark/ staff members</b></li> <li>○ Engineers trained by the manufacturer on relevant equipment: <b>10 Marks/ engineer</b></li> </ul> </li> </ul>	<b>(10 Marks Maximum)</b>  <b>(20 Marks Maximum)</b>	

<i>Bank Account Details</i>	
i	Title of Bank Account: Bank Account No. Name of Bank and address

## Technical Specifications for Handheld XRF

Name of Firm				
Complete Address				
Vender No.				
Telephone & Fax No.		National Tax Number (NTN)	Sales Tax Registration No.	
Sr#	Items	Quantity	Minimum Specifications Required	Specification Being Offered
1	Handheld XRF	2	<b>X-Ray Tube Material:</b> W or Ag or Rh or Au	
			<b>X-Ray Power:</b> min 4 W; min 45kV	
			<b>Detector:</b> SDD with solid detector shutter	
			<b>Analytical Range:</b> Mg – U with library for mineral analysis	
			<b>Camera:</b> Integrated	
			<b>GSP:</b> Built in GPS	
			<b>Connectivity:</b> Bluetooth, USB, Wifi, able to connect to computers for data transfer	
			<b>Storage:</b> Capability to store 5000 estimations with additional external storage support	
			<b>Display:</b> Touchscreen	
			<b>Power:</b> Battery operated with hot swipe feature	
			<b>Operating Environment:</b> Low: Between -20 to 0°C High: Between 40 to 60°C	
			The offered handheld XRF analyzer must comply with international regulatory and safety standards, which may include but not limited to CE, RoHS, FCC, IEC, US FDA and Canada RED Act.	
			<b>Accessories:</b> Two spare batteries, Shock proof carrying case, Minimum 2 Check samples with data sheets, Safety lanyard, 220V AC Adapter, 220 V Charging dock for batteries, Standard Libraries for minerals from Mg-U	
<b>Warranty and Service Agreement:</b> 1 Year warranty of Hardware and installed Software as well as libraries. In addition, One Year service and Maintenance will be provided by the bidder.				

*Prices*

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit Rate (Rs)</b>	<b>GST on Unit price</b>	<b>Unit Rate (Rs) with GST</b>	<b>Total Amount (Rs)</b>
1.						
			Total (to be carried to Summary of Bid Price)			

*Timeline for Delivery of Goods:*

Successful bidder will deliver the goods according to guidelines provided below:

LOT 1: - 60 Days after the issuance of purchase order.

**Terms & conditions: - (On official letter head of the bidder)**

Sealed bids (as per prescribed bid forms) addressed to the Director Procurement (AGM), Geological Survey of Pakistan, Lahore will be received till **27-03-2025, 12:00** hours and will be opened at **12:30** hours on same date in the presence of all bidders or their authorized representative who may choose to attend.

1. The warranty period of Handheld XRF Instrument will be 1 year and successful bidder will provide one year after sales service after completion of warranty period at no additional cost. The warranty period starts after the successful issuance of the inspection report of the delivered items.
2. Bids should accompany a pay order as bid security for an amount equal to Rs. 400,000/- of the bid price in the name of the Director General, Geological Survey of Pakistan. Failure to furnish the same shall lead to disqualification of the bid.
3. The bidder will provide a Performance Guarantee for an amount equal to 5% of the total price of the contract at the time of signing the contract agreement and performance guarantee will remain valid till the expiry date of warranty.
4. Income tax/GST (if admissible) will be charged as per prevailing laws of the Government of Pakistan by bidders.
5. Bids should be free from cutting/overwriting. The bid amount should be written both in figure as well as in words which must be clear and legible. Failure to do so shall lead to disqualification from the bid.
6. Bids have a minimum validity period of 120 days from the last date for submission of the Tender.
7. The quoted rates once offered by the bidder will not be changed during the contract and Dollar to Pak rupee rate fluctuation will not affect the BID price.
8. The successful bidders shall be required to supply items within **Sixty (60) days** from the date of issuance of supply order.
9. The Competent Authority/Procurement Committee reserves the right to accept or reject any or all bids after assigning proper reasons before submission and after opening of bids.
10. The Bidders are required to quote their full Name, Contact number, Address and National Identity Card number.
11. At the time of supply, below par specification goods will result in cancellation of bid.
12. The purchase committee may decrease or increase the number of items if required.
13. Conditional/Incomplete bids shall not be accepted.
14. DELIVERY:
  - a. The material strictly in accordance with the specification must be delivered through Delivery Challan in triplicate at the place and within the time mentioned in this order by the successful bidder at their own expenses.
  - b. Time is of the essence for this order.
15. INSPECTION: All items of this order will be subject to acceptance/rejection by the Inspection Committee/3rd Party Inspector (if required). Rejected material shall be

removed/replaced by the Supplier within 07 days from the date of receipt of the letter/fax/electronic communication, issued by the procurement committee.

16. If the supplier fails to materialize the delivery, the Procuring agency reserves the right to cancel Purchase order and to forfeit the performance guarantee after intimating the supplier for such cancellation/forfeiture after deadline for delivery of equipment.
17. **GOVERNING LAW:** This Procurement and any matter relating thereto shall be governed by the prevailing laws of Govt. of Pakistan and PPRA rule 2004.
18. **WARRANTIES:** Supplier/Seller warrants that all goods, material, equipment or services furnished herein above will conform strictly to the Procuring agency's specifications.
19. **COMPLIANCE WITH LAWS:** Supplier/seller agrees to indemnify the Purchase for any loss, damage or cost suffered by the Procuring agency as a consequence of the Supplier/seller's failure, deliberate or otherwise, to comply with any applicable laws, rules, regulations or orders/directives of any public sector entity and/or Government.
20. **ARBITRATION:** Any dispute, difference or question arising out of or in respect of this Purchase Order shall be settled by arbitration in accordance with the Grievances redressal committee.

**LOT-2**

**Purchase of FTIR Instrument**

*List of Mandatory Documents for Eligibility*

Sr.	Documents.	Remarks
1	Certificate of Company/Firm Registration under the laws of Pakistan with minimum 03 years of Relevant Experience	<ul style="list-style-type: none"> <li>• Valid certificates/e-certification from concerned regulator/ authority is required.</li> <li>• PO/ Completion Certificates for supply of similar equipment supplied</li> </ul>
2	Registration of NTN with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
3	Registration of General Sales Tax (GST) with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
4	Training at Original Equipment Manufacturing (OEM) Facility.	The company will provide assurance on stamp paper regarding OEM facility training of Two (02) officers with no burden on Govt. of Pakistan.
5	Manufacturer/Dealer Authorization Letter/certificate (MAL) is mandatory.	Valid Authorization Certificate
6	The bidder should have a fully operational office/ Head office in any major city of Pakistan.	Proof of Office setup and address
7	Affidavit that the firm is neither blacklisted nor involved in any active litigation in Pakistan.	Annexure-6
8	Pay Order/Call Deposit Receipt/ Bank Draft for Bid Security of Rs. 200,000/-.	Original is required.
9	At least 50 million cumulative turnover for the last three (3) years	Bank statement for last three (03) years
10	Service contract for 1 years at no additional cost after expiry of warranty period	Affidavit on stamp paper



### *Technical Evaluation, Procedure and Criteria*

- a) Initially, only the “TECHNICAL PROPOSAL” shall be opened.
- b) The technical proposals shall be evaluated for compliance with mandatory documents for eligibility and technical specifications of items being procured through this tender, without reference to the price. The technical proposal which does not conform to these requirements will be rejected.
- c) Compliance with all mandatory and technical requirements is a prerequisite for eligibility to participate in the Financial Bid opening.
- d) The bidder must score **65% marks** in Technical Scoring Criteria for Bidders.
- e) The Financial Proposal of bids found technically non-responsive or unqualified shall be returned un-opened to the respective bidders.
- f) The “FINANCIAL PROPOSAL” shall be opened in the presence of Procurement Committee members and the representatives of the technically qualified bidders who may choose to attend.
- g) The opened financial proposals will be thoroughly evaluated, and total amounts will be verified for accuracy. The contract will be awarded to the lowest-priced bid that is fully compliant with all requirements.
- h) The bidders will provide a performance guarantee equivalent to **5%** of the bid value at the time of signing of the contract agreement.
- i) The Purchase Order will be issued after signing of the contract agreement.
- j) The place of delivery of equipment will be the **DIVISIONAL OFFICE, GEOLOGICAL SURVEY OF PAKISTAN, JOHAR TOWN, LAHORE.**

## Technical Scoring Criteria for Bidders

Parameter	Description	Marks	Marks Obtained
<b>Past Performance and Experience (Total marks 60)</b>	<ul style="list-style-type: none"> <li>• <b>Proven Experience in Delivering Similar Equipment</b> <ul style="list-style-type: none"> <li>○ Number of similar projects completed <b>(10 Marks for each Project completed, Maximum 50 Marks)</b></li> </ul> </li> </ul>	<b>50 Marks</b>	
	<ul style="list-style-type: none"> <li>• <b>Client Feedback/Completion Certificate</b> <ul style="list-style-type: none"> <li>○ Testimonials and performance reviews from previous clients <b>(2.5 Marks for each, Maximum 10 Marks)</b></li> </ul> </li> </ul>	<b>10 Marks</b>	
<b>After-Sales Support and Service (Total marks 40)</b>	<ul style="list-style-type: none"> <li>• <b>Warranty and Service Agreements</b> <ul style="list-style-type: none"> <li>○ Availability of service and maintenance contracts of similar nature <b>(2.5 mark for each service contract)</b></li> </ul> </li> </ul>	<b>(10 Marks Maximum)</b>	
	<ul style="list-style-type: none"> <li>• <b>Availability of Local Technical Support</b> <ul style="list-style-type: none"> <li>○ Number of technical staff available for support and operations: <b>02 Mark/ staff members</b></li> <li>○ Engineers trained by the manufacturer on relevant equipment: <b>10 Marks/ engineer</b></li> </ul> </li> </ul>	<b>(10 Marks Maximum)</b>  <b>(20 Marks Maximum)</b>	

<i>Bank Account Details</i>	
i	Title of Bank Account: Bank Account No. Name of Bank and address

## Technical Specifications for FTIR Instrument

Name of Firm				
Complete Address				
Vender No.				
Telephone & Fax No.		National Tax Number (NTN)	Sales Tax Registration No.	
Sr#	Items	Quantity	Minimum Specifications Required	Specification Being Offered
1	FTIR Instrument	1	Spectral Range: Mid-Infrared (MIR): 4000–400 cm <sup>-1</sup> (2.5–25 μm)	
			Resolution: High resolution of at least 0.2 cm <sup>-1</sup> to resolve fine mineralogical features.	
			Signal-to-Noise Ratio (SNR): 15,000:1 or more at 4 cm <sup>-1</sup> resolution	
			Detector: DTGS (Deuterated Triglycine Sulfate) detector for general analysis.	
			Source: Long-life mid-IR source (ceramic or SiC)	
			Sampling: Transmission: Thin-section and micro-sample analysis for geological specimens.	
			Reflection: Specular and diffuse reflectance for polished samples, rough surfaces, and powders.	
			Attenuated Total Reflectance (ATR): Diamond/ZnSe ATR crystal for hard materials like gemstones and minerals.	
			Software Features: Mineral, gemstone spectral and polymer libraries. Advanced spectral processing tools	
			Connectivity: USB, Ethernet, or Wi-Fi for data transfer	
			Calibration: Automatic wavelength and intensity calibration features.	
			Internal validation for consistency in mineralogical studies.	
Accessories: Calibration Standards, O-rings and seals (5 sets), Power cables, Power adapters, Software backup with license key				

*Prices*

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit Rate (Rs)</b>	<b>GST on Unit price</b>	<b>Unit Rate (Rs) with GST</b>	<b>Total Amount (Rs)</b>
1.						
			Total (to be carried to Summary of Bid Price)			

***Timeline for Delivery of Goods:***

Successful bidder will deliver the goods according to guidelines provided below:

For LOT 2: - 60 Days after the issuance of purchase order.

**Terms & conditions: - (On Official Letter Head of the Bidder)**

Sealed bids (as per prescribed bid forms) addressed to the Director Procurement (AGM), Geological Survey of Pakistan, Lahore will be received till **27-03-2025, 12:00** hours and will be opened at **12:30** hours on same date in the presence of all bidders or their authorized representative who may choose to attend.

1. The warranty period of FTIR Instrument will be 1 year and successful bidder will provides one year after sales service after completion of warranty period at no additional cost. The warranty period starts after the successful issuance of the inspection report of the delivered items.
2. Bids should accompany a pay order as bid security for an amount equal to Rs. 200,000/- of the bid price in the name of the Director General, Geological Survey of Pakistan. Failure to furnish the same shall lead to disqualification of the bid.
3. The bidder will provide a Performance Guarantee for an amount equal to 5% of the total price of the contract at the time of signing the contract agreement and performance guarantee will remain valid till the expiry date of warranty.
4. Income tax/GST (if admissible) will be charged as per prevailing laws of the Government of Pakistan by bidders.
5. Bids should be free from cutting/overwriting. The bid amount should be written both in figure as well as in words which must be clear and legible. Failure to do so shall lead to disqualification from the bid.
6. Bids have a minimum validity period of 120 days from the last date for submission of the Tender.
7. The quoted rates once offered by the bidder will not be changed during the contract and Dollar to Pak rupee rate fluctuation will not affect the BID price.
8. The successful bidders shall be required to supply items within **Sixty (60) days** from the date of issuance of supply order.
9. The Competent Authority/Procurement Committee reserves the right to accept or reject any or all bids after assigning proper reasons before submission and after opening of bids.
10. The Bidders to quote their full Name, Contact number, Address and National Identity Card number.
11. At the time of supply, below par specification goods will result in cancellation of bid.
12. The purchase committee may decrease or increase the number of items if required.
13. Conditional/Incomplete bids shall not be accepted.
14. DELIVERY:
  - a. The material strictly in accordance with the specification must be delivered through Delivery Challan in triplicate at the place and within the time mentioned in this order by the successful bidder at their own expenses.
  - b. Time is of the essence for this order.
15. INSPECTION: All items of this order will be subject to acceptance/rejection by the Inspection Committee/3rd Party Inspector (if required). Rejected material shall be

removed/replaced by the Supplier within 07 days from the date of receipt of the letter/fax/electronic communication, issued by the procurement committee.

16. If the supplier fails to materialize the delivery (material and or services); the Procuring agency reserves the right to cancel Purchase order and to forfeit the performance guarantee after intimating the supplier for such cancellation/forfeiture after deadline for delivery of equipment.
17. **GOVERNING LAW:** This Procurement and any matter relating thereto shall be governed by the prevailing laws of Govt. of Pakistan and PPRA rule 2004.
18. **WARRANTIES:** Supplier/Seller warrants that all goods, material, equipment or services furnished herein above will conform strictly to the Procuring agency's specifications.
19. **COMPLIANCE WITH LAWS:** Supplier/seller agrees to indemnify the Purchase for any loss, damage or cost suffered by the Procuring agency as a consequence of the Supplier/seller's failure, deliberate or otherwise, to comply with any applicable laws, rules, regulations or orders/directives of any public sector entity and/or Government.
20. **ARBITRATION:** Any dispute, difference or question arising out of or in respect of this Purchase Order shall be settled by arbitration in accordance with the Grievances redressal committee.

LOT-3

**Purchase of Reconnaissance Drone**



**List of Mandatory Documents for Eligibility**

Sr.	Documents.	Remarks
1	Certificate of Company/Firm Registration/Corporation under the laws of Pakistan	Valid certificates/e-certification from concerned regulator/ authority is required.
2	Registration of NTN with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
3	Registration of General Sales Tax (GST) with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
4	The bidder should have a fully operational office/ Head office in any major city of Pakistan.	Proof of Office setup and address
5	Affidavit that the firm is neither blacklisted nor involved in any active litigation in Pakistan.	Annexure-6
6	Pay Order/Call Deposit Receipt/ Bank Draft for Bid Security of Rs. 50,000/-.	Original is required.
7	At least 10 million cumulative turnover for the last three (3) years	Bank statement for last three (03) years
8	At least two relevant Projects or Manufacturer Authorization Letter (MAL)	Proof of relevant document

### *Technical Evaluation, Procedure and Criteria*

- a) Initially, only the “TECHNICAL PROPOSAL” shall be opened.
- b) The technical proposals shall be evaluated for compliance with mandatory documents for eligibility and technical specifications of items being procured through this tender, without reference to the price. The technical proposal which does not conform to these requirements will be rejected.
- c) Compliance with all mandatory and technical requirements is a prerequisite for eligibility to participate in the Financial Bid opening.
- d) The Financial Proposal of bids found technically non-responsive or unqualified shall be returned un-opened to the respective bidders.
- e) The “FINANCIAL PROPOSAL” shall be opened in the presence of Procurement Committee members and the representatives of the technically qualified bidders who may choose to attend.
- f) The opened financial proposals will be thoroughly evaluated, and total amounts will be verified for accuracy. The contract will be awarded to the lowest-priced bid that is fully compliant with all requirements.
- g) The bidders will provide a performance guarantee equivalent to **10%** of the bid value at the time of signing of the contract agreement.
- h) The Purchase Order will be issued after signing of the contract agreement.
- i) The place of delivery of equipment will be the DIVISIONAL OFFICE, GEOLOGICAL SURVEY OF PAKISTAN, JOHAR TOWN, LAHORE.

<i>Bank Account Details</i>	
i	Title of Bank Account: Bank Account No. Name of Bank and address

*Technical Specifications for Reconnaissance Drones*

Name of Firm				
Complete Address				
Vender No.				
Telephone & Fax No.		National Tax Number (NTN)		Sales Tax Registration No.
Sr #	Items	Quantity	Minimum Specifications Required	Specification Being Offered with Make and Model
1	Drone - I	01	<p><b><u>UAV</u></b></p> <p><b>Weight:</b> 900-1000 g (with propellers, without accessories)</p> <p><b>Max Flight Time:</b> Up to 45 minutes (in windless conditions)</p> <p><b>Max Hover Time:</b> ≥38 minutes (in windless condition)</p> <p><b>Max Flight Distance:</b> ≥32 km</p> <p><b>Max Flight Speed (at sea level, no wind):</b> ≥15 m/s</p> <p><b>Wind Resistance:</b> 10-12 m/s</p> <p><b>Max Takeoff Altitude:</b> 5000-6000 m above sea level</p> <p><b>GNSS:</b> GPS+ Galileo+ BeiDou+ GLONASS (when the RTK module is enabled)</p> <p><b>Operating Temperature Range:</b> -10° to 40° C</p> <p><b><u>Camera System</u></b></p> <p><b>1. Wide Camera</b></p> <p><b>Sensor:</b> 4/3 CMOS, Effective pixels: 20 MP</p> <p><b>Lens:</b> FOV: 84° Format Equivalent: 24 mm</p> <p>Aperture: f/2.8-f/11 Focus: 1 m to ∞</p> <p><b>ISO Range:</b> 100-6400</p> <p><b>Shutter Speed:</b> Electronic Shutter: 8-1/8000 s &amp; Mechanical Shutter: 8-1/2000 s</p> <p><b>Max Image Size:</b> 5280×3956</p> <p><b>Video Resolution:</b> H.264, 4K:3840×2160@30fps, FHD: 1920×1080@30fps</p>	

			<p><b>Bitrate:</b> 4K: 130 Mbps, FHD: 70 Mbps</p> <p><b>2. Tele Camera</b></p> <p><b>Sensor:</b> 1/2-inch CMOS, Effective pixels: 12 MP</p> <p><b>Lens:</b> FOV: 15°, Format Equivalent: 162 mm, Aperture: f/4.4, Focus: 3 m to ∞</p> <p><b>ISO Range:</b> 100-6400</p> <p><b>Shutter Speed:</b> Electronic Shutter: 8-1/8000 s</p> <p><b>Max Image Size:</b> 4000×3000</p> <p><b>Video Resolution:</b> H.264, 4K: 3840×2160@30fps, FHD: 1920×1080@30fps</p> <p><b>Bitrate:</b> 4K: 130 Mbps, FHD: 70 Mbps</p> <p><b>Digital Zoom:</b> 8x (56x hybrid zoom)</p> <p><b><u>Gimbal</u></b></p> <p><b>Stabilization:</b> 3-axis (tilt, roll, pan)</p> <p><b>Mechanical Range:</b> Tilt: -135° to 100°, Roll: -45° to 45°, Pan: -27° to 27°</p> <p><b>Controllable Range:</b> Tilt: -90° to 35°</p> <p><b>Max Control Speed (tilt):</b> 100°/s</p> <p><b>Angular Vibration Range:</b> ±0.007°</p> <p><b><u>Sensing</u></b></p> <p><b>Type:</b> Omnidirectional binocular vision system, supplemented with an infrared sensor at the bottom of the aircraft.</p> <p><b>Forward:</b> Measurement Range: 0.5-20 m, Detection Range: 0.5-200 m</p> <p><b>Backward:</b> Measurement Range: 0.5-16 m,</p> <p><b>Lateral:</b> Measurement Range: 0.5-25 m,</p> <p><b>Upward:</b> Measurement Range: 0.2-10 m,</p> <p><b>Downward:</b> Measurement Range: 0.3-18 m,</p> <p><b><u>Video Transmission</u></b></p> <p><b>Video Transmission System:</b> O3 Transmission</p> <p><b>Live View Quality:</b> Remote Controller: 1080p/30fps</p> <p><b>Operating Frequency:</b> 2.400-2.4835 GHz 5.725-5.850 GHz</p>	
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			<p><b>Max Transmission Distance(Unobstructed):</b> FCC: 15 km, CE: 8 km, SRRC: 8 km, MIC: 8 km</p> <p><b>Max Transmission Distance (Obstructed):</b> Strong Interference (dense buildings, residential areas, etc.): 1.5-3 km (FCC/CE/SRRC/MIC), Medium Interference (suburban areas, city parks, etc.): 3-9 km (FCC), 3-6 km (CE/SRRC/MIC), Low Interference (open spaces, remote areas, etc.): 9-15 km (FCC), 6-8 km (CE/SRRC/MIC)</p> <p><b>Max Download Speed:</b> 15 MB/s</p> <p><b>Latency:</b> Approx. 200 ms</p> <p><b>Antenna:</b> 4 Antennas, 2T4R</p> <p><b>Transmission Power (EIRP):</b> 2.4 GHz: &lt;33 dBm (FCC), &lt;20 dBm (CE/SRRC/MIC) 5.8 GHz: &lt;33 dBm (FCC), &lt;30 dBm (SRRC), &lt;14 dBm (CE)</p> <p><b><u>Remote Controller</u></b></p> <p><b>Video Transmission System:</b> O3 Transmission</p> <p><b>Max Transmission Distance (unobstructed):</b> FCC: 15 km, CE/SRRC/MIC: 8 km</p> <p><b>Antenna:</b> 4 Antennas, 2T4R</p> <p><b>Video Transmission Transmitter Power (EIRP):</b> 2.4 GHz: &lt;33 dBm (FCC), &lt;20 dBm (CE/SRRC/MIC) 5.8 GHz: &lt;33 dBm (FCC), &lt;14 dBm (CE), &lt;23 dBm (SRRC)</p> <p><b>Wi-Fi Protocol:</b> 802.11 a/b/g/n/ac/ax, Support 2x2 MIMO Wi-Fi</p> <p><b>Bluetooth Protocol:</b> Bluetooth 5.1</p> <p><b>Screen Resolution:</b> 1920x1080</p> <p><b>Screen Size:</b> 5.5 inches</p> <p><b>Brightness:</b> 1,000 nits</p> <p><b>Touchscreen Control:</b> 10-point multi-touch</p> <p><b>Battery:</b> Li-ion (5000 mAh @ 7.2 V)</p> <p><b>Storage Capacity:</b> Internal Storage (ROM): 64 GB</p> <p><b>Video Output Port:</b> Mini-HDMI port</p> <p><b>Operating Temperature Range:</b> -10° to 40° C</p> <p><b>GNSS:</b> GPS+Galileo+GLONASS</p>	
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			<p><b><u>Battery</u></b></p> <p><b>Capacity:</b> 5000 mAh  <b>Standard Voltage:</b> 15.4 V  <b>Max Charging Voltage:</b> 17.6 V  <b>Type:</b> LiPo 4S  <b>Chemical System:</b> LiCoO2  <b>Energy:</b> 77 Wh  <b>Weight:</b> 335.5 g</p> <p><b><u>Charger</u></b></p> <p><b>Input:</b> 100-240 V (AC Power), 50-60 Hz, 2.5 A  <b>Output Power:</b> 100 W  <b>Output:</b> Max. 100 W</p> <p><b><u>RTK Module</u></b></p> <p><b>Weight:</b> 24±2 g  <b>Interface:</b> USB-C  <b>Power:</b> Approx. 1.2 W  <b>RTK Positioning Accuracy:</b> (RTK Fix)  Horizontal: 1 cm + 1 ppm; Vertical: 1.5 cm + 1 ppm</p> <p><b><u>Training</u></b></p> <p>One week training of 3 personnels in Office as well as Field settings for Drone operations, surveying, mapping and data processing</p> <p><b><u>Warranty</u></b></p> <p>1 year warranty from the supplier</p> <p><b><u>Included Accessories</u></b></p> <p><b>Hard Shell Carrying Case:</b> Included  <b>Screwdriver:</b> Included</p> <p><b><u>Additional Accessories</u></b></p> <p><b><u>1. Charging Hub with extra batteries</u></b></p>	
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			<p><b>Batteries:</b> 3(three) extra batteries with same specs as mentioned in battery section above</p> <p><b>Charging Hub:</b>  Input: USB-C: 5-20 V, 5.0 A  Output: Battery Port: 12-17.6 V, 8.0 A  Rated Power: 100 W  Charging Type: Three batteries charged in sequence</p> <p><b><u>2. External Storage</u></b></p> <p><b>128GB</b> Kingston Canvas Go! Plus V30 A2 microSDXC or Kingston Canva React Plus V90 A1 microSDXC</p> <p><b><u>3. Car Charger: 65W</u></b></p> <p>Input Voltage: 12.7-16 V, 6.5 A  DC Output USB-C:  5 V, 5 A  9 V, 5 A  12 V, 5 A  15 V, 4.3 A  20 V, 3.25 A  5-20 V, 3.25 A  USB-A: 5 V/2 A</p> <p><b><u>4. Shoulder Bag</u></b>  Tailored for the aircraft and its accessories.</p>	
2	<b>Drone – II</b>	<b>02</b>	<p><b><u>UAV</u></b></p> <p><b>Weight:</b> ≤ 250 g (with propellers, without accessories)  <b>Max Flight Time:</b> ≥ 45 minutes (in windless conditions)  <b>Max Hover Time:</b> ≥ 39 minutes (in windless conditions)  <b>Max Flight Distance:</b> ≥ 20 km (FCC)  <b>Max Flight Speed (at sea level, no wind):</b> 12 m/s (Normal Mode)  <b>Max Wind Resistance:</b> 10.7 m/s  <b>Max Takeoff Altitude:</b> 4000 m above sea level  <b>GNSS:</b> GPS, Galileo, BeiDou  <b>Operating Temperature Range:</b> -10° to 40°C</p>	

		<p><b><u>Camera System</u></b></p> <p><b>Sensor:</b> ≥ 1/1.3-inch CMOS, Effective pixels ≥ 48 MP  <b>Lens:</b> FOV 82.1°, Format Equivalent: 24 mm, Aperture: f/1.7  <b>ISO Range:</b> 100-6400  <b>Shutter Speed:</b> Electronic Shutter: 1/8000-2 s  <b>Max Image Size:</b> 8064×6048  <b>Still Photography Modes:</b> Single, Burst, Timed, and AEB modes  <b>Video Resolution:</b> 4K: 3840×2160 @ 100 fps, FHD: 1920×1080 @ 200 fps  <b>Bitrate:</b> ≥ 150 Mbps</p> <p><b><u>Gimbal &amp; Stabilization</u></b></p> <p><b>Stabilization:</b> 3-axis mechanical gimbal (tilt, roll, pan)  <b>Mechanical Range:</b> Tilt: -135° to 80°, Roll: -135° to 45°, Pan: -30° to 30°  <b>Controllable Range:</b> Tilt: -90° to 60°</p> <p><b><u>Sensing System</u></b></p> <p><b>Obstacle Sensing:</b> Omnidirectional binocular vision system  <b>Forward Measurement Range:</b> 0.5-18 m, Detection Range: 0.5-200 m  <b>Backward Measurement Range:</b> 0.5-15 m, Effective Sensing Speed: ≤ 12 m/s</p> <p><b><u>Video Transmission</u></b></p> <p><b>Transmission System:</b> O4 Transmission or equivalent  <b>Live View Quality:</b> 1080p/30fps  <b>Operating Frequency:</b> 2.4 GHz / 5.85 GHz-  <b>Max Transmission Distance (Unobstructed):</b> FCC: 20 km, CE: 10 km  <b>Latency:</b> ≤ 120 ms  <b>Antenna:</b> 4 Antennas, 2T4R</p> <p><b><u>Remote Controller</u></b></p> <p><b>Max Operating Time:</b> Without charging any mobile device: 6 hours  <b>Max Supported Mobile Device Size:</b> 180×86×10 mm (L×W×H)  <b>Operating Temperature:</b> -10° to 40° C</p>	
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			<p><b>Video Transmission Operating Frequency:</b> 2.4000-2.4835 GHz, 5.170-5.250 GHz, 5.725-5.850 GHz</p> <p><b>Transmitter Power (EIRP):</b> 2.4 GHz: &lt; 33 dBm (FCC), &lt; 20 dBm (CE/SRRC/MIC) 5.1 GHz: &lt; 23 dBm (CE) 5.8 GHz: &lt; 33 dBm (FCC), &lt; 14 dBm (CE), &lt; 30 dBm (SRRC)</p> <p><b><u>Battery &amp; Charger</u></b></p> <p><b>Battery Type:</b> Li-ion high-capacity intelligent battery <b>Battery Capacity:</b> ≥ 3850 mAh <b>Standard Voltage:</b> 7.38 V <b>Max Charging Voltage:</b> 8.5 V <b>Charging Time:</b> ≤ 90 minutes per battery <b>Charger:</b> 30W USB-C Charger</p> <p><b><u>Training</u></b></p> <p>One week training of 3 personnels in Office and Field settings for Drone operations, surveying, mapping and data processing</p> <p><b><u>Warranty</u></b></p> <p>1 year warranty from the supplier</p> <p><b><u>Accessories</u></b></p> <ol style="list-style-type: none"> <li>1. Charging Hub: Supports sequential charging of three batteries</li> <li>2. Three extra Batteries</li> <li>3. Spare Propellers (at least 4 pairs)</li> <li>4. Carrying Case</li> <li>5. External Storage Kingston Canvas GO! Plus 128GB V30 U3 A2 microSDXC <b>or</b> Kingston Canvas React Plus 128GB V90 U3 A1 microSDXC Additional Accessories</li> <li>6. Car Charger (30W)</li> <li>7. Shoulder Bag (tailored for drone and accessories)</li> </ol>	
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3	<p style="text-align: center;"><b>High-Precision RTK Base Station for UAV</b></p>	01	<p><b>IP Rating:</b> IP65 or IP67</p> <p><b>GNSS Frequency:</b> GPS, BEIDOU, GLONASS , Galileo <b>or</b> GPS, BDS, GALILEO, GLONASS, QZSS</p> <p><b>Positioning Accuracy (RTK):</b> Horizontal : 1 cm+ 1 ppm(RMS) Vertical : 2 cm+ 1 ppm(RMS) <b>Or</b> Horizontal: 0.8 cm (RMS) + 1 ppm Vertical: 1.5 cm (RMS) + 1 ppm</p> <p><b>Differential Data Format:</b> RTCM</p> <p><b>Operating Frequency:</b> L1, L2, and L5 Bands</p> <p><b>Power Consumption:</b> 12 W <b>Or</b> Relay Station: 14.5 W Base Station: 7 W Rover Station: 6.2 W</p> <p><b>BatteryType:</b> Lithium-ion or LiPo battery</p> <p><b>Capacity:</b> 4920 mAh or 6500mAh</p> <p><b>Operating Temperature:</b> -20° to 55° C</p> <p style="text-align: center;"><b>Accessories</b></p> <p><b><u>Tripod</u></b></p> <p>High quality tripod compatible with RTK station for Setting up the GNSS Mobile station</p> <p><b>Or</b></p> <p>Self-locking Survey Pole and Dual-lock Tripod</p>	
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*Prices*

<b>Item No.</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit Rate (Rs)</b>	<b>GST on Unit price</b>	<b>Unit Rate (Rs) with GST</b>	<b>Total Amount (Rs)</b>
1.						
			Total (to be carried to Summary of Bid Price)			

*Timeline for Delivery of Goods:*

Successful bidder will deliver the goods according to guidelines provided below:

For LOT- 3: - 60 Days after the issuance of purchase order.

**Terms & conditions: - (On Official Letter Head of the Bidder)**

Sealed bids (as per prescribed bid forms) addressed to the Director Procurement (AGM), Geological Survey of Pakistan, Lahore will be received till **27-03-2025, 12:00** hours and will be opened at **12:30** hours on same date in the presence of all bidders or their authorized representative who may choose to attend.

1. The warranty period of the drones and other Instrument will be 1 year. The warranty period starts after the successful issuance of the inspection report after delivery of the equipment.
2. Bids should accompany a pay order as bid security for an amount equal to Rs. 50,000/- of the bid price in the name of the Director General, Geological Survey of Pakistan. Failure to furnish the same shall lead to disqualification of the bid.
3. The bidder will provide a Performance Guarantee for an amount equal to 10% of the total price of the contract at the time of signing the contract agreement and performance guarantee will remain valid till the expiry date of warranty.
4. Income tax/GST (if admissible) will be charged as per prevailing laws of the Government of Pakistan by bidders.
5. Bids should be free from cutting/overwriting. The bid amount should be written both in figure as well as in words which must be clear and legible. Failure to do so shall lead to disqualification from the bid.
6. Bids have a minimum validity period of 120 days from the last date for submission of the Tender.
7. The quoted rates once offered by the bidder will not be changed during the contract and Dollar to Pak rupee rate fluctuation will not affect the BID price.
8. The successful bidders shall be required to supply items within **Sixty (60) days** from the date of issuance of supply order.
9. The Competent Authority/Procurement Committee reserves the right to accept or reject any or all bids after assigning proper reasons before submission and after opening of bids.
10. The Bidders to quote their full Name, Contact number, Address and National Identity Card number.
11. At the time of supply, below par specification goods will result in cancellation of bid.
12. The purchase committee may decrease or increase the number of items if required.
13. Conditional/Incomplete bids shall not be accepted.
14. DELIVERY:
  - a. The material strictly in accordance with the specification must be delivered through Delivery Challan in triplicate at the place and within the time mentioned in this order by the successful bidder at their own expense.
  - b. Time is of the essence for this order.
15. INSPECTION: All items of this order will be subject to acceptance/rejection by the Inspection Committee/3rd Party Inspector (if required). Rejected material shall be removed/replaced by the Supplier within 07 days from the date of receipt of the letter/fax/electronic communication, issued by the procurement committee.

16. If the supplier fails to materialize the delivery (material and or services); the Procuring agency reserves the right to cancel Purchase order and to forfeit the performance guarantee after intimating the supplier for such cancellation/forfeiture after deadline for delivery of equipment.
17. GOVERNING LAW: This Procurement and any matter relating thereto shall be governed by the prevailing laws of Govt. of Pakistan and PPRA rule 2004.
18. WARRANTIES: Supplier/Seller warrants that all goods, material, equipment or services furnished herein above will conform strictly to the Procuring agency's specifications.
19. COMPLIANCE WITH LAWS: Supplier/seller agrees to indemnify the Purchase for any loss, damage or cost suffered by the Procuring agency as a consequence of the Supplier/seller's failure, deliberate or otherwise, to comply with any applicable laws, rules, regulations or orders/directives of any public sector entity and/or Government.
20. ARBITRATION: Any dispute, difference or question arising out of or in respect of this Purchase Order shall be settled by arbitration in accordance with the Grievances redressal committee.

LOT-4

**Purchase of Hyperspectral Imaging System**

*List of Mandatory Documents for Eligibility*

Sr.	Documents.	Remarks
1	Certificate of Company/Firm Registration/Corporation under the laws of Pakistan with minimum 03 years of Experience	Valid certificates/e-certification from concerned regulator/ authority is required.
2	Registration of NTN with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
3	Registration of General Sales Tax (GST) with Federal Board of Revenue (FBR) and having Active Taxpayer status.	
7	The bidder should have a fully operational office/ Head office in any major city of Pakistan.	Proof of Office setup and address
8	Affidavit that the firm is neither blacklisted nor involved in any active litigation in Pakistan.	Annexure-6
9	Pay Order/Call Deposit Receipt/ Bank Draft for Bid Security of Rs. 500,000/-.	Original is required.
10	At least 50 million cumulative turnover for the last three (3) years	Bank statement for last three (03) years



### *Technical Evaluation, Procedure and Criteria*

- a) Initially, only the “TECHNICAL PROPOSAL” shall be opened.
- b) The technical proposals shall be evaluated for compliance with mandatory documents for eligibility and technical specifications of items being procured through this tender, without reference to the price. The technical proposal which does not conform to these requirements will be rejected.
- c) Compliance with all mandatory and technical requirements is a prerequisite for eligibility to participate in the Financial Bid opening.
- d) The Financial Proposal of bids found technically non-responsive or unqualified shall be returned un-opened to the respective bidders.
- e) The “FINANCIAL PROPOSAL” shall be opened in the presence of Procurement Committee members and the representatives of the technically qualified bidders who may choose to attend.
- f) The opened financial proposals will be thoroughly evaluated, and total amounts will be verified for accuracy. The contract will be awarded to the lowest-priced bid that is fully compliant with all requirements.
- g) The bidders will provide a performance guarantee equivalent to **5%** of the bid value at the time of signing of the contract agreement.
- h) The Purchase Order will be issued after signing of the contract agreement.
- i) The place of delivery of equipment will be the DIVISIONAL OFFICE, GEOLOGICAL SURVEY OF PAKISTAN, JOHAR TOWN, LAHORE.

<i>Bank Account Details</i>	
i	Title of Bank Account: Bank Account No. Name of Bank and address

*Technical Specifications for Hyperspectral Imaging System*

Name of Firm				
Complete Address				
Vender No.				
Telephone & Fax No.		National Tax Number (NTN)	Sales Tax Registration No.	
Sr #	Items	Quantity	Minimum Specifications Required	Specification Being Offered with Make and Model
1	Payload Drone	01	<p><b><u>Unmanned Aerial Vehicle (UAV)</u></b></p> <p><b>Type:</b> Industrial-grade quadcopter or multirotor drone  <b>Flight Time:</b> Minimum 50 minutes without payload  <b>Payload Capacity:</b> Minimum 2.5 kg  <b>Positioning System:</b> GPS + GLONASS + BeiDou + Galileo  <b>RTK Module:</b> RTK antennas with centimeter-level positioning accuracy  <b>Live View Camera:</b> FPV with 1080p Resolution  <b>Obstacle Avoidance:</b> Multi-directional sensing with real-time positioning adjustments  <b>Camera and Sensor Support:</b> Compatible with LiDAR, hyperspectral, and thermal cameras  <b>Weather Resistance:</b> Minimum IP55 rating for dust and water resistance  <b>Operating Temperature:</b> -20° to 50° C  <b>Communication Range:</b> Minimum 10 km  <b>Battery:</b> Smart battery system with hot-swap capability</p> <p><b><u>Remote Controller</u></b></p> <p><b>Screen:</b> ≥ 6-inch LCD touchscreen  <b>Resolution:</b> at least 1920×1200  <b>Brightness:</b> ≥1100 nits  <b>Global Navigation Satellite System:</b> GPS + Galileo + BeiDou</p>	

			<p><b>Built-in Battery:</b> Li-ion <math>\geq 6000</math> mAh  <b>External Battery:</b> Li-ion <math>\geq 4500</math> mAh  <b>Protection Rating:</b> IP54 or better  <b>Operating Time:</b> Built-in Battery + External Battery <math>\geq 5</math> hours  <b>Operating Temperature:</b> <math>-20^{\circ}</math> to <math>50^{\circ}</math> C  <b>Wi-Fi Protocol:</b> Wi-Fi 6 or better  <b>Bluetooth:</b> Bluetooth 5.1 or better</p> <p><b><u>Included Accessories:</u></b></p> <p>Carrying Case <math>\times 1</math>  Landing Gear <math>\times 2</math>  Propellers (Pair) <math>\times 1</math>  Screws and Tools <math>\times 1</math>  Cleaning Tools <math>\times 1</math>  Spare Gimbal Damper <math>\times 4</math>  Rubber Port Cover (Set) <math>\times 1</math></p> <p><b><u>Software and Connectivity</u></b></p> <p><b>Flight Control Software:</b> Supports mission planning, autonomous flight, and georeferenced data capture  <b>Data Interface:</b> USB 3.0, Ethernet, or equivalent high-speed interface  <b>Post-Processing Software:</b> Includes RTK/PPK processing and mapping capabilities</p> <p><b><u>UAV Gimbal System and Mounting Interface</u></b></p> <p><b>Gimbal:</b> Two (2) compatible gimbals having 3-axis active stabilization  <b>Dual Gimbal Connector:</b> One (1) Dual gimbal connector for heavier payloads  <b>Mounting Interface:</b> At least two (2) Skyports or equivalent for payload integration</p> <p><b><u>Battery Station with extra Batteries</u></b></p> <p><b>Battery Station:</b> One (1) compatible Battery station to charge multiple batteries  <b>Batteries:</b> Three (3) extra compatible Batteries</p>	
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			<p><b><u>RTK Ground-Base Station</u></b></p> <p><b>GNSS Support:</b> Multi-constellation (GPS, GLONASS, BeiDou, Galileo)</p> <p><b>Correction Support:</b> RTK/PPK differential correction for high-precision mapping</p> <p><b>Communication:</b> Wireless data link with drone for real-time correction</p>	
2	Hyperspectral Camera - I	01	<p><b>Spectral Range:</b> 400–1000 nm</p> <p><b>Spectral Resolution:</b> ≤ 5 nm</p> <p><b>Spatial Pixels:</b> Minimum 640</p> <p><b>Bands:</b> Minimum 200 spectral bands</p> <p><b>Signal-to-noise ratio:</b> 600/1 or better</p> <p><b>Weight:</b> ≤ 1.5 kg</p> <p><b>Data storage space:</b> High-speed SSD 128 GB or more</p> <p><b>Application software:</b> data acquisition, processing and analysis software</p> <p><b>UAV Support: skypoint/adopter for UAV mounting</b> (the camera must be compatible with the Payload Drone detailed above at Sr. No. 1)</p> <p><b>Data Interface:</b> USB3.0 or Gigabit network, or equivalent high-speed interface</p> <p><b>Training:</b> Necessary training ≥1 week in Lab and field setting</p> <p><b>Warranty:</b> I year warranty from the supplier</p>	
3	Hyperspectral Camera – II	01	<p><b>Spectral Range:</b> 1000–2500 nm</p> <p><b>Spectral Resolution:</b> ≤ 12 nm</p> <p><b>Spatial Pixels:</b> Minimum 380</p> <p><b>Bands:</b> Minimum 200 spectral bands</p> <p><b>Cooling:</b></p> <p><b>Weight:</b> ≤ 4 kg (must be portable for field deployment)</p> <p><b>Power:</b> Battery-operated</p> <p><b>Storage:</b> Compatible SSD <b>128 GB</b> or more</p> <p><b>Application software:</b> data acquisition, processing and analysis software</p> <p><b>Accessories:</b> Tripod &amp; Mounting System, Additional Batteries 2x, Carrying Case</p> <p><b>Training:</b> Necessary training ≥1 week in Lab and field setting</p> <p><b>Warranty:</b> I year warranty from the supplier</p>	
4	LiDAR Sensor	01	<p><b>Laser Wavelength:</b> in-between 600 nm to 1600nm</p> <p><b>Point Density:</b> Minimum 200,000 pts/sec</p>	

			<p><b>Accuracy:</b> <math>\leq 5</math> cm vertical and <math>\leq 10</math> cm horizontal</p> <p><b>Field of View (FOV):</b> Minimum <math>30^\circ</math></p> <p><b>Weight:</b> <math>\leq 1</math> kg</p> <p><b>IP Rating:</b> <math>\geq</math>IP54</p> <p><b>IMU/GNSS Integration:</b> High-accuracy inertial measurement system with RTK support</p> <p><b>Storage:</b> integrated microSD card <math>\geq 128</math>GB with Sequential writing speed 50 MB/s or above and UHS-I Speed Grade 3 rating or above</p> <p><b>Gimbal:</b> 3-axis (tilt, roll, pan)</p> <p><b>UAV Support:</b> skyport/adoppter for UAV mounting (the Lidar Sensor must be compatible with the Payload Drone detailed above at Sr. No. (1))</p> <p><b>Application software:</b> data acquisition, and post-processing and analysis software</p> <p><b>Training:</b> Necessary training <math>\geq 1</math> week in Lab and field setting</p> <p><b>Warranty:</b> I year warranty from the supplier</p>	
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Prices

Item No.	Description	Quantity	Unit Rate (Rs)	GST on Unit price	Unit Rate (Rs) with GST	Total Amount (Rs)
1.						
			Total (to be carried to Summary of Bid Price)			

*Timeline for Delivery of Goods:*

Successful bidder will deliver the goods according to guidelines provided below:

For LOT 4: - 60 Days after the issuance of purchase order.

**Terms & conditions: - (On Official Letter Head of the Bidder)**

Sealed bids (as per prescribed bid forms) addressed to the Director Procurement (AGM), Geological Survey of Pakistan, Lahore will be received till **27-03-2025, 12:00** hours and will be opened at **12:30** hours on same date in the presence of all bidders or their authorized representative who may choose to attend.

1. The warranty period of Instruments supplied will be 1 year. The warranty period starts after the successful issuance of the inspection report after delivery of the equipment.
2. Bids should accompany a pay order as bid security for an amount equal to Rs. 500,000/- of the bid price in the name of the Director General, Geological Survey of Pakistan. Failure to furnish the same shall lead to disqualification of the bid.
3. The bidder will provide a Performance Guarantee for an amount equal to **5%** of the total price of the contract at the time of signing the contract agreement and performance guarantee will remain valid till the expiry date of warranty.
4. Income tax/GST (if admissible) will be charged as per prevailing laws of the Government of Pakistan by bidders.
5. Bids should be free from cutting/overwriting. The bid amount should be written both in figure as well as in words which must be clear and legible. Failure to do so shall lead to disqualification from the bid.
6. Bids have a minimum validity period of 120 days from the last date for submission of the Tender.
7. The quoted rates once offered by the bidder will not be changed during the contract and Dollar to Pak rupee rate fluctuation will not affect the BID price.
8. The successful bidders shall be required to supply items within **Sixty (60) days** from the date of issuance of supply order.
9. The Competent Authority/Procurement Committee reserves the right to accept or reject any or all bids after assigning proper reasons before submission and after opening of bids.
10. The Bidders to quote their full Name, Contact number, Address and National Identity Card number.
11. At the time of supply, below par specification goods will result in cancellation of bid.
12. The purchase committee may decrease or increase the number of items if required.
13. Conditional/Incomplete bids shall not be accepted.
14. DELIVERY:
  - a. The material strictly in accordance with the specification must be delivered through Delivery Challan in triplicate at the place and within the time mentioned in this order by the successful bidder at their own expenses.
  - b. Time is of the essence for this order.
15. INSPECTION: All items of this order will be subject to acceptance/rejection by the Inspection Committee/3rd Party Inspector (if required). Rejected material shall be removed/replaced by the Supplier within 07 days from the date of receipt of the letter/fax/electronic communication, issued by the procurement committee.



16. If the supplier fails to materialize the delivery (material and or services); the Procuring agency reserves the right to cancel Purchase order and to forfeit the performance guarantee after intimating the supplier for such cancellation/forfeiture after deadline for delivery of equipment.
17. GOVERNING LAW: This Procurement and any matter relating thereto shall be governed by the prevailing laws of Govt. of Pakistan and PPRA rule 2004.
18. WARRANTIES: Supplier/Seller warrants that all goods, material, equipment or services furnished herein above will conform strictly to the Procuring agency's specifications.
19. COMPLIANCE WITH LAWS: Supplier/seller agrees to indemnify the Purchase for any loss, damage or cost suffered by the Procuring agency as a consequence of the Supplier/seller's failure, deliberate or otherwise, to comply with any applicable laws, rules, regulations or orders/directives of any public sector entity and/or Government.
20. ARBITRATION: Any dispute, difference or question arising out of or in respect of this Purchase Order shall be settled by arbitration in accordance with the Grievances redressal committee.



**Government of Pakistan**  
**MINISTRY OF ENERGY (PETROLEUM DIVISION)**  
**Geological Survey of Pakistan**

**Tender Submission**

Chairman Purchase Committee,  
Geological Survey of Pakistan (GSP),  
Trade Center near Expo Center, Lahore.  
Ph. +92-42-99232933-4,  
Fax. 042-99232940.

Reference your Advertisement No. PID \_\_\_\_\_ dated \_\_\_\_\_ regarding TENDER for PURCHASE OF ANALYTICAL AND SURVEYING EQUIPMENT,

1. We, hereby submit our bid along-with the requirements as per the TENDER document. We acknowledge that GSP is not bound to accept any proposal in this regard and reserve the right to accept or reject any offer and to annul the TENDER process and reject all proposals with/without assigning any reason or having to owe any explanation whatsoever, as per PPRA guidelines.

2. The decision of Selection / Evaluation Committee shall be final and the Committee will not be liable for any loss or damage to any party acting in reliance thereon.

3. We agree to respond to GSP requests within required time in case we qualify for the subject project as mentioned in TENDER documents.

4. We submit herewith our bid as one original.

5. We undertake that all the information submitted by us is correct and true to the best of our knowledge and belief and nothing has been concealed and misstated by us in the TENDER. In case any information is found wrong, misleading or misstated in this TENDER, the same may lead to rejection of our bid and our disqualification for further proceedings in the subject procurement process.

6. We declare that our TENDER is our only and final and no unsolicited offer of any description shall be made for consideration of the GSP.

Authorized Signature:

Name and Title of Signatory:

Name & Address of Firm:



**Bid Security (Pay Order/CDR)**  
**Geological Survey of Pakistan**  
**Near Expo Centre, Johar Town, Lahore.**

**Attach original pay order here**

*(On official letterhead of the bidder)*

**INTEGRITY PACT**

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC.  
PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN  
CONTRACTS WORTH RS. 10.00 MILLION OR MORE**

Dated \_\_\_\_\_

..... [name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Supplier] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Name of Seller/Supplier: .....

Signature: .....

Signature and Seal of Bidder

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*(On official letterhead of the bidder)*

**FAIR PRICE CERTIFICATE**

WE M/S \_\_\_\_\_ HEREBY CERTIFY THAT PRICES QUOTED BY US AGAINST GEOLOGICAL SURVEY OF PAKISTAN TENDER ENQUIRY NO. PID \_\_\_\_\_ ARE THE MOST ADVANTAGEOUS AND MOST COMPETITIVE AS GENERALLY APPLICABLE TO ALL OTHER BUYERS AND OR SOLD THROUGH OUR AGENTS AS PER PREVAILING INTERNATIONAL MARKET AS ON THE DATE OF QUOTE AND IF IT IS ESTABLISHED AT ANY STAGE THAT THESE WERE HIGHER WE SHALL BE HELD RESPONSIBLE AND AGREE TO PAY IMMEDIATELY THE DIFFERENTIAL TO GEOLOGICAL SURVEY OF PAKISTAN.

SIGNATURE AND SEAL OF THE  
MANUFACTURER/SOLE AGENT/AUTHORIZED DEALER

NOTE: FAIR PRICE CERTIFICATE WILL BE REQUIRED, IN CASE SINGLE BID IS FOUND TECHNICALLY RESPONSIVE IN THE RESPECTIVE TENDER.

(On official letter-head of the contractor) To be signed by the Chief Executive of the bidding company or a representative duly authorized by board resolution.

*(On official letterhead of the bidder)*

To be signed by the Chief Executive of the bidding company or a representative duly Authorized by board resolution.

**INTEGRITY AND ETHICS UNDERTAKING**

We hereby commit and undertake to observing the following principles during our participation in the tender process and during the contract execution:

- a) That we will not directly or through any other person or firm, offer promise or give to any of the employees of GSP involved in the tender process or execution of the contract any gain, pecuniary benefit or facilitation payment in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of contract.
- b) That we have not and will not enter with other bidders into any undisclosed agreement or understanding either formal or informal to restrict competitiveness or to cartelize in the bidding process.
- c) That we will ensure that the remuneration of agents (if engaged) is appropriate and for legitimate services only.
- d) That we will not use subcontracts, purchase orders or consulting agreements as means of channeling payments to employees of GSP.
- e) That we will not commit any offence under the Pakistan Penal Code, Prevention of Corruption Act or National Accountability Ordinance to achieve any advantage, gain or benefit during the tender process or the execution of contract.

We further understand and acknowledge that any violation or transgression of the above-mentioned principles will attract disqualification from the tender process and may also result in permanent exclusion from future contact award processes.

We also accept and undertake to respect and uphold GSP's absolute right to resort to and impose such disqualification, debarment or exclusion.

For and on behalf of: \_\_\_\_\_

(On Stamp paper )

Mandatory for Participation in Bidding process

**AFFIDAVIT**

I, \_\_\_\_\_ S/o \_\_\_\_\_ aged \_\_\_\_\_ years working as Proprietor / Managing Partner / Director of M/s \_\_\_\_\_ having its registered office at \_\_\_\_\_ do hereby solemnly affirm and declare on oath asunder:

1. That I am competent to swear this affidavit being proprietor / one or the partners / Director of M/s \_\_\_\_\_
2. That M/s \_\_\_\_\_ is a proprietorship / partnership firm / company is participating in tender process conducted by GSP.
3. That I hereby confirm and declare that none of my/our group/sister concern/associate company is participating/ submitting this tender.
4. That I hereby confirm and declare that my/our firm/company M/s and my I our firm/ group/ company/ sister concern/ associate company have not been blacklisted / de-listed by any Institutional agencies / Govt. Dept/ Public Sector Undertaking.
5. That I further undertake that in case any of the facts contained above and in-our application is round other-wise or incorrect or false at any stage, my/ our firm/ company/ group/ sister concerns/ associate companies shall stand debarred from the present and future tenders of the GSP.

(Signature of the Proprietor/ Managing Partner/Director with Seal)

DEPONENT

Verified at \_\_\_\_\_ on \_\_\_\_\_ that the contents of paras 1 to 5 of this affidavit are true and correct to best of my knowledge and no part of this is false and nothing material has been concealed or falsely stated there in.

(Signature of the Proprietor/ Managing Partner/ Director with Seal) DEPONENT

(Signature & Seal of Notary)