



**NATIONAL CENTRE OF EXCELLENCE IN
GEOLOGY UNIVERSITY OF PESHAWAR**
Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

Advertisement Date **Sunday 23rd June, 2019**
Last date of tender is **Tuesday 9th July, 2019 upto 12:00PM**
Opening date of tender is **Tuesday 9th July, 2019 at 12:30PM**

Price= Rs.1000/- For Laboratory Items

Price = Rs.500/- For Other Items

(Firms downloading this file from NCEG site will have to deposit Rs.1000/Rs.500 as the Tender Document fee at the time they submit their bids. Firms submitting tender documents through post/courier should send it before the last date of opening)

**TENDER DOCUMENTS FOR THE PURCHASE OF
LABORATORY, IT, MISCELLANEOUSE ITEMS**

FINANCIAL YEAR 2019-2020

(Note: Please provide a soft copy of all documents in a USB/CD drive along with hard copy of the offer.

Document Issued By:

NCEG Official

Dated: / / 2019



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

Terms & Conditions

1. INVITATION TO BID

- 1.1. The Director National Centre of Excellence in Geology invites bids for the items as per attached annexures.
- 1.2. Technical and Financial Bids must be submitted in separate sealed envelopes, including its due date on the face of each envelope.
- 1.3. Earnest money @ 2% of the total bid cost shall be submitted with the tender without which the quoted bid will not be considered.
- 1.4. The quoted price shall be inclusive of all duties / taxes.
- 1.5. The Director, National Centre of Excellence in Geology, reserves the right to add, delete or amend any part of the tender documents during the bidding period.

INSTRUCTION TO BIDDERS/GENERAL TERMS & CONDITIONS

2. Eligible Bidders/Suppliers

- 2.1. This Invitation for Bids is open to all Bidder/Suppliers meeting the following requirements:
 - 2.1.1. Duly Registered with Federal Board of Revenue for Income Tax (Active Taxpayers) and Sales Tax.
 - 2.1.2. Manufacturer or authorized representative of the manufacturer.

3. Qualifications of the Bidder/Suppliers

- 3.1. The Bidder/Supplier shall provide documentary evidence that;
 - 3.1.1. The bidder/supplier has financial, technical, supplying, demonstration, fixing etc. capability necessary to perform the contract and has successful performance history in accordance to the nature of supplies required in these bidding.
 - 3.1.2. In case the bidder/supplier offering the supplies that the bidder/supplier did not manufacture or otherwise produce, the bidder/supplier has been authorized by the manufacturer or producer of such supply; and
 - 3.1.3. The technical specifications of the bidder's/supplier's quoted items meet the minimum technical specifications as stated in these tender documents.

4. SUBMISSION OF BIDS

- 4.1. Bids in sealed envelope should reach the office of the Director on or before the due date.
- 4.2. Bids sent through courier should be delivered at least half an hour before the scheduled time of opening.
- 4.3. After the bids / quotations are opened, no bidder shall be allowed to revise, propose or request any changes in bid.
- 4.4. The bidder or authorized representative shall sign on each page of the tender document. No corrections and overwriting are allowed.
- 4.5. Item(s) should be quoted ANNEXURE-wise separately. Preference will be given to the firm(s) quoting maximum number of equipment ANNEXURE wise, along with installation and commissioning/Turnkey solution. However, NCEG reserves the right to opt any item from any bidder for the required items.
- 4.6. **Bidders are requested to read carefully the terms and conditions and sign the Tender Documents in token of having understood and accepted the same in all respects. All or any of the provisions of the terms and conditions may be changed/altered/modified/deleted/added or amended by the Centre as and when deemed suitable/necessary.**
- 4.7. While quoting tender rates, the items should be given numbers as are numbered in the Tender Document.



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

- 4.8. The tender Rate shall be item wise. And rate will be on both FOR basis in Pak Rupees and CIF basis Peshawar Air Port/Peshawar Dry Port/NCE in Geology premises.
- 4.9. Prices of optional accessories should be quoted separately.
- 4.10. Taxes levied by the Government, insurance & clearing charges, and freight charges, if any, shall be paid by the bidder and must be included in the quoted prices.
- 4.11. Bidder is responsible for timely delivery of bids. This office will not be responsible for misplacement / tampering / non-attendance delay or any other incident in case the bids are not delivered at the designated place & time.
- 4.12. The bidders should be either established firm or sole distributor / authorized agent of the manufacturer having after sale service facilities, preferably in Peshawar and/or Islamabad/Rawalpindi.
- 4.13. The payment of equipment is coupled with installation / commissioning of equipment; therefore, supplier should make sure that bid is complete in all respects including consumables etc.
- 4.14. **The bidders must enclose original Performa Invoice / Quotation from their Principals or authorization certification of the Principal / manufacturer failing to which, their offers will be rejected.**
- 4.15. **Bidders should preferably have office, workshop facilities and after sales services preferably in Peshawar and/or Islamabad/Rawalpindi.**
- 4.16. Bidders must have trained engineers to provide after sales service. Copy of Training Certificate should be submitted along with their offer.
- 4.17. Certificate of authorization / distribution from the Principle Vender / manufacturer be included with the offer.
- 4.18. Only those suppliers will be entertained who have previously supplied similar equipments in Pakistan OR Principal Vendor / manufacturer has its installation base of working equipment in Pakistan.
- 4.19. Training of Two end users will be the responsibility of the bidder, in case of winning the tender.
- 4.20. The price is to be quoted, essentially indicating the following:
 - 4.20.1. Original Country of origin.
 - 4.20.2. Estimated gross / net weight, dimension & volume of offered item.
 - 4.20.3. Delivery period.
 - 4.20.4. Original technical literature.
 - 4.20.5. List of Clients to whom the same natures of equipment are supplied in recent two years.
 - 4.20.6. The supplier must submit a certificate that the equipment supplied are according to international standards at time of delivery, otherwise no supply will be accepted by the client and the call deposit will be forfeited.

5. BID VALIDITY

All offers shall remain valid for 180 days from the date of opening of bids, until any further extension required by the client.

6. ACCEPTANCE/REJECTION

The Director National Centre of Excellence in Geology reserves the right to reject any / all bids at any time prior to the acceptance of bids. The grounds of rejection will be communicated to the bidder(s) upon request. However, Director NCEG shall not be liable to provide any justification of those grounds.

7. RATE ESCALATIONS

Quoted price shall remain valid, firm, and irrevocable and fixed till the fulfillment of obligations by the supplier and will not be subject to escalation on any account.



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

8. TECHNICAL LITERATURE & SAMPLES

If applicable/required, the Bidder (s) shall submit the following;

- a. Data/Fact sheets of the equipment.
- b. Original technical literature/Evaluation Software (s)

9. EVALUATION

Evaluation will be done on item-wise basis unless otherwise specified. The Director National Centre of Excellence in Geology, for timely delivery or economic reasons/compatibility, may:

- a. Split the tendered items/ quantities among more than one supplier.
- b. Form a package of tendered items/quantities.
- c. Omit, Decrease or increase any item of Bid.
- d. Increase / decrease the quantities of any required item(s).

10. PURCHASE ORDER

Purchase order of required item (s) shall be placed on fulfillment of conditions mentioned above.

11. DELIVERIES

11.1. Free delivery at the following location is required, unless otherwise specified:

- a) Director National Centre of Excellence in Geology, University of Peshawar, Peshawar, Pakistan

11.2. The supplier shall replace defective material / software / hardware at his / her risk and cost. Including transportation duty, taxes etc.

11.3. The material shall be in original/sealed packing to ensure delivery without any damages during transit.

11.4. The supplier shall be responsible for and shall provide part of the work and services / functions related to packing, handling and general transportation requirements.

11.5. If any of the software/hardware is discovered to be damaged or unacceptable at the point of embarkation or disembarkation, the supplier shall be responsible for replacement of the software/hardware free of any charges and costs to the buyer / client.

11.6. Time of Delivery of all equipment will be Maximum 90 days (FOR) and 180 days (CIF) after the date of issuance of purchase order.

11.7. The equipment should be new and the vendor/supplier will ensure originality of the procurement channel as well as equipment.

11.8. The Equipment shall be supplied in packed form and shall only be opened in the presence of the Purchase Committee/NCEG Official. Working manuals and other related literature shall accompany the equipment in original at the time of delivery.

12. SCOPE OF SUPPLY

12.1. The bidder shall supply/deploy equipment/items, of the specifications given in the attached Annexure-II, III, IV.

12.2. The bidder shall also be responsible for their installation, calibration, free service and the supplies for at least one year from the date which makes equipment's warranty functional.

12.3. All equipment should be accompanied by service manuals of the equipment/item separately in English.

12.4. In case installation at the times of supply / delivery is not possible; the vendor / supplier must fulfill the same on the new installation date, given by Technical/Concerned Person of the NCEG.

13. INSPECTION

Pre-delivery inspection may be carried out at the premises of supplier (s) and / or post delivery inspection at office of Director, by the Technical Committee/NCEG official.

14. PAYMENT



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

The supplier, after delivery of goods and its acceptance/satisfactory report shall submit invoice to this office, containing relevant information i.e.

- a. Purchase order number and date
- b. Item number
- c. Quantity
- d. Price
- e. Delivery challan indicating delivery date.
- f. Sales tax return invoices.
- g. No Interim payment will be made.

15. TAXES

- 15.1.** Income tax as applicable under the prevailing Government rules will be deducted at source (except where the supplier provides an income tax exemption certificate).
- 15.2.** Quoted price shall be inclusive of all taxes, especially GST 17% will be applicable.
- 15.3.** Stamped duty of 1% will be deducted from the final bill.
- 15.4.** Professional tax shall be deducted as applicable.

16. LIQUIDATED DAMAGES

- 16.1.** If supplier fails to deliver ordered material within the stipulated period / scheduled time specified in purchase order, The Director, without prejudice to any other remedies, shall deduct from the bills or any other due payments / guarantees, as liquidated damages, a sum equivalent to 0.1% per day of the undelivered goods up to maximum 10% of the bid price & forfeit 2% earnest money.
- 16.2.** The liquidated damages shall also be applicable for the cancelled quantity of goods.
- 16.3.** Whenever liquidated damages become payable, if delivery of all goods and equipment is not made within the time period specified except on account of force majeure, the buyer shall demand the same and shall serve notice to the supplier requiring payment thereof.
- 16.4.** If the supplier fails to remit payment within ten (10) days of receipt of such notice, the buyer shall forth-with become entitled to recover the same.

17. SECURITY DEPOSIT/RETENTION MONEY/PERFORMANCE SECURITY

10% Amount of bill price shall be deducted, or bank guarantee provided by supplier & the same should be released after one-year subject to the issuance of FAC / Satisfactory report.

18. MAINTANANCE PERIOD

Maintenance period is one year from the date of successful installation.

19. INSTLLATION & COMMISIONING

- 19.1.** Please note that system/supply should be complete in all respect in terms of hardware, software and accessories / spare parts. Any deficiency in acquisition of desired results at the time of installation and subsequent functioning will be the responsibility of the supplying firm / company, without any additional cost. All the supply should be based on National Centre of Excellence in Geology University of Peshawar.
- 19.2.** The supplier will be responsible for installation, testing, commissioning and one-year smooth running of equipment. And arrange free of cost training for the buyer/client.

20. CONDITIONAL BIDS

Conditional, incomplete and / or not fulfilling the technically unqualified bid(s) will not be accepted.

21. BID BOND/ EARNEST MONEY

- 21.1.** The bidder shall furnish, as part of his bid, bid security / earnest money equal to 2% of quoted price with their offer in the form of demand draft / pay order in favor of Director, National Centre of Excellence in Geology, University of Peshawar, Peshawar.
- 21.2.** Banker's cheque as 2% bid security / earnest money will not be accepted.
- 21.3.** The bid security / earnest money shall be denominated in Pak rupees and shall be in the form of Demand Draft, Pay Order or Call Deposit issued by a Pakistani scheduled Bank or



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

branch of a Foreign Bank, acceptable in favor of the Director National Centre of Excellence in Geology, University of Peshawar, Peshawar.

21.4. In case of alternate prices, bid security / earnest money shall be based on the maximum quoted price of the same item.

21.5. The Demand Draft shall be returned to unsuccessful bidders.

21.6. The bid security / earnest money will be forfeited if a bidder withdraws his bid during the period of his bid's validity or fails to supply the machinery / equipment ordered by the Centre.

22. SIGNING OF BIDS

The person signing the bid shall initial all the pages of the bid and tender documents, where entries are made and attach Tender Document payment receipt in original.

23. PURCHASER'S RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS

The National Centre of Excellence in Geology, University of Peshawar, Peshawar (Purchase Committee) reserves the right to reduce or increase the quantity, accept or reject any bid and to stop the bidding process and reject all bids, at any time prior to award of supply order without incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidders of the ground for such actions.

24. CONVENCING

Unsolicited advice/clarification and any personal approaches at any stage of evaluations/purchase process are strictly prohibited and may lead to disqualification.

25. PERFORMANCE SECURITY

25.1. Within one week of issuance of the purchase order for CIF equipment only, the successful bidders shall furnish to National Centre of Excellence in Geology, University of Peshawar, the performance security bond as per Annexure-I, equivalent to 10% of the bid price in the form of a bank guarantee, before opening of LC.

25.2. The performance security shall be payable to the National Centre of Excellence in Geology, University of Peshawar, as compensation for any loss resulting from the supplier's failure to complete its obligation.

25.3. The performance security will be discharged by the National Centre of Excellence in Geology, University of Peshawar, and returned to the supplier after completion of the supplier's performance obligations under the contract.

25.4. The security will be retained for one-year starting from the date of successful installation and operation of the machinery / equipment.

26. CALIBRATION OF EQUIPMENT

26.1. It will be the responsibility of supplier to arrange standards / consumables required for the calibration of the equipment at the time of installation. The cost of any standards / consumables required for calibration shall be borne by the supplier/bidder.

26.2. No TA/DA claim will be entertained by NCEG, in case of after sale services, whenever it requires within the premises.

26.3. In case of non-conformity with desired specification, the item shall be replaced by the supplier free of cost.

27. WARRANTY

27.1. The supplier shall furnish at least one year after sales service / warranty for successful operation of equipment(s) / item(s) from the date of installation.

27.2. In case of Malfunctioning / defect in any equipment / item, the supplier shall replace them free of cost within 30 days; otherwise the supplier will return the entire paid amount to National Centre of Excellence in Geology, University of Peshawar immediately.



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

Note:

By signing this agreement, you acknowledge that you have read and understood, and agree to be bound by the terms and conditions as outlined her and in the agreement, and confirming that your company/organization terms and conditions stand eradicated.

Dated: _____

Name: _____

Designation: _____

Company Name: _____

Contact No: _____

Mailing Address: _____

E-Mail: _____

Signature and official Seal: _____

NCEG Official & Signature _____



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

Bidders are required to provide a comprehensive solution both in terms of efficiency, utilization and economic as well.

Note:

1. LC opening process will be the responsibility of the supplier with the facilitation of the NCE in Geology, insurance charges/expenses should be paid by the supplier and cover the item, machinery and equipment etc., should be provided up to the laboratories of NCE in Geology or end user destination.
2. The customs clearance of machinery and equipment etc., at any airport/seaport/dry port will the responsibility of the supplier and their cost including the local transportation up to the lab/Centre or end user destination. The Centre will provide the exemption certificate and other documents for clearance purpose to the supplier.
3. Please note that system/supply should be completed in all respect in terms of hardware, software and accessories/spare parts. Any deficiency in acquisition of desired results at the time of installation and subsequent functioning will be the responsibility of the supplying firm/company, without any additional cost. All the supply should be based on National Centre of Excellence in Geology University of Peshawar.
4. No FTT will be entertained.
5. Please provide individual item prices (wherever possible) for item-wise comparison
6. The Equipments of which specifications are not given above, the suppliers are requested to quote all the models, which they can supply.
7. Submission of Data/Fact sheets, explaining the function and specification, of each equipment quoted is necessary.
8. The quotes should include all the accessories needed for the proper functioning of each equipment for the given task. The successful tenders will have to accept / abide by all the responsibilities regarding installation and proper functioning of the equipments and training to the end user.
9. Installation, commissioning and training of the end users on these systems will be responsibility of the supplier. The contract shall be liable to be cancellation if the supplier does not meet this condition.
10. The tender Rate shall be item wise. And rate will be on both **FOR basis in Pak Rupees and CIF basis Peshawar Air Port/Dry Port /NCE in Geology Premises.**
11. The bidders shall have to provide a certificate from the principle vendor that all the equipments are according to ASTM standards.
12. The cost should be inclusive of all the taxes as admissible as per rules.
13. **The specifications of the items where appropriate are given in this tender document. However, firms are encouraged to quote also the better-quality items, if available in the market.**



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

ANNEXURE-I

PERFORMANCE BOND

Director
NCE in Geology
University of Peshawar, Peshawar

Dear Sir,

RE: AGREEMENT DATE : _____ BETWEEN
YOURSELVES & M/S _____ No. _____ In consideration
of your having concluded a CONTRACT evidenced by purchase order No. _____ dated
_____ with m/s. _____ (SUPPLIER) for
_____ and in consideration of value received from the SUPPLIER, we agree
and undertake as follows:-

Name of equipment: _____ Amount: _____

1. To make unconditional payment of _____ or unconditional payments from time to time as called upon totaling the said sum of _____ being 10% (Ten Percent) of the CONTRACT price mentioned in the said Purchase Order/ Agreement upon your written demand(s) without further recourse, question or reference to SUPPLIER the event of Supplier's default in compliance with its obligatory liabilities and responsibilities arising under and in pursuance of the warranties and guarantees committed by it in the said Purchase Order / Agreement.
2. To accept written intimation(s) from you as sufficient evidence of the existence of a default or non-compliance as aforesaid in the part of SUPPLIER and to make payment accordingly within fifteen (15) days of receipt of the written intimations.
3. To keep this guarantee in full force from the date of this guarantee up to two years after the date of installation and successful operation of equipment.
4. No grant of time or other indulgence to or composition or arrangement with SUPPLIER in respect of the performance of its obligations under and in pursuance of the said Agreement / Purchase Order of any Clause thereof, with or without notice to us shall in any manner discharge or otherwise, howsoever, affect this guarantee and our liabilities and commitments hereunder.
5. This guarantee shall also cover obligations of the SUPPLIER so far as liquidated damages is concerned, as provided in Agreement / Purchase Order any recovery on account of liquidated damages shall not reduce the value of 10% (Ten Percent) provided herein.
6. This guarantee shall be binding on us and our successors-in-interest and shall be irrevocable.

Yours faithfully,

Bank Seal



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

Tender Form

Equipment and items to be purchased from NCEG's and other project's budgets.

S.No	Name of Laboratory	Annexure/Page No
1	Laboratory Items	ANNEXURE II/10
2	IT Items	ANNEXURE III/13
3	Miscellaneous Items (ACs, TVs, Digital Camera)	ANNEXURE IV/15

Note: Firms are required to provide Annexure wise quotations, complete in all aspects of accessories, consumables and requirements of the labs. Further, for clarification of any specifications, please consult this office.



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

ANNEXURE II

LAB ITEMS

S. No.	Item Name	Specifications	Qty
1.	Oxygen Cylinder	Oxygen Cylinder of 99.99% pure for (CHNS) Elemental Analyzer, import quality	1
2.	EC Coliform Equipment	Capable of performing E coli test for biological pathogens / contamination. Complete accessories and growth media capable of complete analysis	1
3.	Digital Micropipettes	High quality pipettes for ICP-MS	8
4.	Certified Reference Standards: Analytical Standards/Certified reference materials for heavy and trace elements analysis on ICPMS/AAS in different media (drinking water, waste water, rocks, soil/sediments and human biomarkers)	1. Water / Drinking water (NIST SRM 1640, QCI -041, QC 145 / or better quality) 2. Waste Water 3. Human Biomarker 4. Nails and Hair - NSC, DC 73347 / or better quality 5. Urine - NIES 18 / or better quality 6. Food and Rice - NIST CRM 1568a / or better quality. 5. Rocks / Soils / Sediments: The standard should cover a wide range of elements (e.g., light, heavy, rare earth, Platinum group) and different concentration ranges to be analyzed on ICP-MS / Atomic Absorption	As required
5	Syringe9000SOUL63 NOLDYNA		1
6	Combustion Tube CW800 Part # 483	TOC Consumable Items/cleaning	1
7	Dust Cartridge Part # 11170	TOC Consumable Items/cleaning	1
8	Glass Wool Part # 90332	TOC Consumable Items/cleaning	1
9	Fumehood construction for Fire Assay Furnace	Blower Exhaust Assembly for the Assay Blower with hot fumes, acids, Pb/Hd (etc) resistant features Note: Should be all safe for experiment.	
10	Thin Section Lab	1. Grinding Wheel (4" & 7") 2. Saw blades (8" & 12") for hard rocks 3. Glass slides 2x1 for probe sections 4. Sand paper 120, 320, 400, 800, 1000, 1500 mesh 5. Silicon carbide powder 320, 400, 800, 1000, 1200 mesh	2+2 2+2 50 box 20 each 5kg each
11	GPS	<ul style="list-style-type: none"> • Bright 2.6" color capacitive touchscreen • Barometric altimeter and 3-axis tilt-compensated compass • Download recreational tracks and routes to follow • Paperless geocaching with 250k preloaded caches • ANT+ sensor support and Smartphone Notifications 	04
12	Research grade Chemicals (High Purity)	Perchloric acid Hydrofluoric Acid Nitric Acid Hydrochloric Acid MIBK	30 L 20 L 50 L 100 L 20 L
13*	Optical petrography system	Reports per ISO and ASTM standard test methods measurement and calculation of vitrinite reflectance in coals and petroleum source rocks, includes;	1



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

		<p>a. Microphotometer with software b. High sensitivity optical detector c. Digital imaging with highest possible resolution <u>Flat Panel computer monitor, 23 inches</u> <u>Universal C-mount Adapter</u> a. Multi-spatial axes adjustment for parcentrality and parfocality with eyepieces b. Spectral range of 200 to 3000nm c. C-mount to attach to camera d. Dovetail adapter to attache to microscope phototube <u>Reflectance standards for vitrinite reflectance analysis set (0.4%, 0.9%, 1.7%)</u> a. Conforms with ISO standard methodology b. Consists of a set of three standards c. Reflectance levels of the three standards are 0.4, 0.9 and 1.7% absolute at 546 nm d. Warranty, training and installation</p>	
14*	Latest state of the art polarizing microscope compatible with the above (13*) mentioned vitrinite reflectance system	<p><u>FOR EPI SCOPIC / DIASCOPIIC MICRSOCOPY</u></p> <ul style="list-style-type: none"> • Precentered lamp house • Quintuple Centering Nosepiece • Power Cord (220-240V) • P-1 Intermediate tube • P-CL 1/4 Lambda & Tint Plate • Achromat Strain-free Condenser • Trinocular Tube T light distribution 100/0, 20/80,0/100 • Filter, 45mm, GIF • Wide field eyepiece: CFI 10X and CFI 10X CM • Universal Epi-illumination • Precentered lamp house • Powerful halogen Lamp <ul style="list-style-type: none"> • 25mm NCB11 • 25mm ND4/ND16 • 25mm GIF • Dia polizer FOR XY-POL <p><u>Objectives</u></p> <ul style="list-style-type: none"> • CFI Plan Achromat UW 2X (wide angle) • TU Plan Fluor EPI P 5X • TU Plan Fluor EPI P 10X • TU Plan Fluor EPI P 20X • CFI Achromat P 40X B or equivalent • TU Plan Fluor EPI P 50X • TU Plan Fluor EPI P 100X • CFI Achromat P 100X (Oil) B <p><u>Two stages are required</u></p> <ol style="list-style-type: none"> 1- Circular graduated Stage with Stage adopter 2- Right handle square stage (Attachable mechanical stage) 	1



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

		<p>not acceptable)</p> <ul style="list-style-type: none"> • LV-PO Polarizer for LV-UEP 12 <p>Compensator</p> <ul style="list-style-type: none"> • P-CS Senarmont Compensator • P-CQ Quartz Wedge Compensator <p>WITH DIGITAL CAMERA SYSTEM (Standalone & Latest touch system) Should have 5.00 or above Effective m. pixels colored camera, with in-built display screen above 8 inches with research & Teaching tools And can work with & without attaching external computer With inbuilt internet online facility, one slot for SD card memory and two or more slots for USB Sensitivity: 2400 1x, F5.6 or greater; equivalent to ISO 260 A/D conversion: 12-bit Power Supply: 240V, 50-60Hz Capable to directly attach with bigger screen Multimedia projector All above system should be complete / ready to use.</p>	
--	--	---	--



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

ANNEXURE III

IT ITEMS

Sr. No	Item	Specifications	Quantity
1	Desktop Computer	Branded Desktop Computer Processor: Intel Core i7 min. 8MB Cache Memory: 32GB HDD: 1TB 7200 RPM GPU: PCI/PCIe 4GB Nvidia/ATI Redeon capable of supporting geological data processing capabilities Casing: MiniTower/Tower Power supply: min. 250 Watt Screen: 23/21" FHD Display with HDMI/DP and VGA/DVI inputs (compatible with GPU) 4xUSB ports, Built-in Gigabit NIC, Keyboard, Mouse, DVD RW ±	One (01)
2	Desktop Computer	Branded Desktop Computer Processor: Intel Core i3 Memory: 8GB HDD: 1TB 7200 RPM Casing: MiniTower/Tower Power supply: min. 250 Watt Screen: minimum 19" FHD display screen 4xUSB ports, Built-in Gigabit NIC, Keyboard, Mouse, DVD RW ±	As required
3	Desktop Computer	Branded Desktop Computer Processor: Intel Core i5 Memory: 8GB HDD: 1TB 7200 RPM Casing: MiniTower/Tower Power supply: min. 250 Watt 4xUSB ports, Built-in Gigabit NIC, Keyboard, Mouse, DVD RW ±	As required
4	Laptop	15.6" Laptop with - Intel Core i7 Processor with 8MB min. cache - 16GB RAM - 1TB HDD - FHD (1920x1080) screen resolution - min. three hours battery backup - carrying case - wireless mouse	Five (05) (one from project PSF Pak-Turkey & four from Centre)



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

5	Printer(s)	Normal Duty A4 printer for usual office printing. (Printer must not have dual/double toner/drum dependency like HP 1101 printer)	One (01)
6	Model No: Canon IPF-815 Large format Printer Cartridges and print head	<ol style="list-style-type: none"> 1. PFI 303 BK 2. PFI 303 MBK 3. PFI 303 YELLOW 4. PFI 303 MAGENTA 5. PFI 303 CYAN 6. PFI 703 BK 7. PFI 703 MBK 8. PFI 703 YELLOW 9. PFI 703 MAGENTA 10. PFI 703 CYAN 11. PRINTING HEAD PF-03 	<p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p> <p>One (01)</p>
7	GPU	PCIe 4GB Graphics Card for installation inside Dell T630 Servers. GPU must support FHD and Dual Display (HDMI+DVI) for attaching atleast two screen with the machine.	Four (04)



**NATIONAL CENTRE OF EXCELLENCE IN GEOLOGY
UNIVERSITY OF PESHAWAR**

Peshawar-25130, Khyber Pakhtunkhwa, Pakistan
Phone: +92-91-9221254; 9221256 Fax: +92-91-9221228
Web: <http://nceg.uop.edu.pk/>

ANNEXURE IV

Miscellaneous Items (ACs, TVs, Digital Camera)

Sr. No	Item	Specifications	Quantity
1	Hot & cold DC Inverter Air Conditioners different sizes	Wall Mounted 1. 1 ton 2. 1.5 ton 3. 2 ton	As required
2	LED TVs For Hostels	43/40" LED TVs required for hostel lounges with wall mount kits	Three (03)
3	Digital Camera	Digital Camera for field photography. Camera must have built-in GPS for geo-tagging taken images.	02