

Annex #1

Mehran University of Engineering & Technology (MUET), Jamshoro
 U.S-Pakistan Center for Advanced Studies in Water (USPCAS-W)
 Annual Procurement Plan


| Sr. No | Description of Goods | Procurement Method |
|--|--|--------------------------|
| Lab 2 : Soil and Water Analysis | | |
| 1 | Particle size analyzer | open competitive bidding |
| 2 | Automatic Nitrogen Analyzer | open competitive bidding |
| 3 | Neutron probe analyzer | open competitive bidding |
| 4 | Soluble Reactive Phosphorous Analyzer (FS 3000, O.I. Analytical) | open competitive bidding |
| 5 | Time domain reflectometer for soil moisture measurement | open competitive bidding |
| 6 | Pressure plate apparatus | open competitive bidding |
| 7 | Vacuum Filters and Centrifuges (GP-8) with a rotor, large buckets and inserts that hold multiple tubes | open competitive bidding |
| 8 | Ultra centrifuge (refrigerated) | open competitive bidding |
| 9 | Block digesters (including digest tubes) | open competitive bidding |
| 10 | Ashing ovens (muffle furnaces) | open competitive bidding |
| 11 | Ammonia electrodes and pH-mV meters + extra filling solution and electrode membrane tips | open competitive bidding |
| 12 | Water purification (deionizers) | open competitive bidding |
| 13 | PURELAB flex | open competitive bidding |
| 14 | Dissolved Oxygen (DO) Meter | open competitive bidding |
| 15 | Temperature Chamber | open competitive bidding |
| 16 | Desiccators | open competitive bidding |
| 17 | Orbital Shaker | open competitive bidding |
| 18 | Conductivity Meters | open competitive bidding |
| 19 | pH Meters | open competitive bidding |
| 20 | Soil Moisture Sensors (Surface Tensiometers) | open competitive bidding |
| 21 | Water Table Height Sensors | open competitive bidding |
| 22 | Soil Temperature Meters | open competitive bidding |
| 23 | Air and Water Sampling Pumps | open competitive bidding |
| 24 | Soil penetrometer/Augers/ coring tools | open competitive bidding |
| 25 | Wick samplers | open competitive bidding |

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|--------------------------------------|--|--------------------------|
| 26 | Infiltration rings | open competitive bidding |
| 27 | Chemical and Glasswares (lump sum) | open competitive bidding |
| 28 | Operation and Maintenance expenditure (Lump Sum) | open competitive bidding |
| Lab 3 : Computer and Software | | |
| 29 | AquaChem | open competitive bidding |
| 30 | MODFLOW-SURFACT (Flow and Transport) | open competitive bidding |
| 31 | UnSat Suite Plus | open competitive bidding |
| 32 | WATMAN - (Water Management Decision Support Software for Canal Systems) | open competitive bidding |
| 33 | AWARDS/ET-Toolbox- (Agricultural WAter Resources Decision Support system and EvapoTranspiration Toolbox) | open competitive bidding |
| 34 | HEC RAS | open competitive bidding |
| 35 | GoldSim: (Engineering and Environmental Simulation Software for Water Resource Applications) | open competitive bidding |
| 36 | WaterWare: (Water Resources Management Information System) | open competitive bidding |
| 37 | CIMS (Canal Irrigation Management System) | open competitive bidding |
| 38 | IRRISOFT | open competitive bidding |
| 39 | ANYSIS Fluent CFD Software for 5 year licence | open competitive bidding |
| 40 | AQTESOLV (Professional and Academic) Use/Application: Analysis of pumping tests, slug tests and constant-head tests (HydroSOLVE, Inc.) | open competitive bidding |
| 41 | GAMS Base Module and GAMS/Solvers (GAMS/CPLEX) | open competitive bidding |
| 42 | FLO-2D | open competitive bidding |
| 43 | SVFlux 3D - Dam Analysis | open competitive bidding |
| 44 | MIKE SHE (Integrated Catchment Modeling Software) | open competitive bidding |
| 45 | Computers (25 Nos) | open competitive bidding |
| 46 | Laptop | open competitive bidding |
| 47 | Laser Printer (Laser Printer color and black) | open competitive bidding |
| 48 | Photocopier | open competitive bidding |
| 49 | Scanner | open competitive bidding |
| 50 | Vensim Software | open competitive bidding |

| Sr. No | Description of Goods | Procurement Method |
|--|--|--------------------------|
| 51 | Computer Softwares (antivirus, acrobat writer etc) | open competitive bidding |
| 52 | Air Conditioners, 2 tons(split type) | open competitive bidding |
| Lab. 4: GIS and Remote Sensing | | |
| 53 | Work Station (30 Nos) | open competitive bidding |
| 54 | Multimedia Stations, vedio wall 3 x 3 Matrix 55 inch | open competitive bidding |
| 55 | Saver station (2 Nos.) | open competitive bidding |
| 56 | Laser Printer (13x19 paper feed, photorealistic color) | open competitive bidding |
| 57 | Large size scanner , Hp Design Jet 4500 44 inch | open competitive bidding |
| 58 | Large format printer design jet Hp Z5200, 44 inch | open competitive bidding |
| 59 | Air Conditioners, 2 tons(split type) | open competitive bidding |
| 60 | Uninterruptible Power Supply (5 KVA, Dry batteries) | open competitive bidding |
| 61 | ERDAS liecence | open competitive bidding |
| 62 | Arc Map 10.2, single user liecence including all extensions | open competitive bidding |
| 63 | Super computer Multiprocessor | open competitive bidding |
| 64 | GPS RTK Defferential | open competitive bidding |
| 65 | Hand held GPS | open competitive bidding |
| Lab. 5: Advanced water and wastewater quality control | | |
| 66 | Ultra Gas Chromatograph-Mass Spectrometer with EL & PCI and NCI Source (Technology Links) | open competitive bidding |
| 67 | SUPRESSOR type Prominence Ion Chromatograph Dual System (Technology Links) | open competitive bidding |
| 68 | FTIR-Fourier Transform Infrared Spectrophotometer (Technology Links) | open competitive bidding |
| 69 | Total Organic Carbon Analyzer High Sensitive PC based Combination for Brian Sample Analysis (Technology Links) | open competitive bidding |
| 70 | Ultra Pure Air Generator Mod. AirGen TOC , AirGen "Brezza's" Series TOC (Technology Links) | open competitive bidding |
| 71 | Multitype ICP Emission Spectrometer ICPE-9000 (Technology Links) | open competitive bidding |
| 72 | Portable pH meter | open competitive bidding |
| 73 | Dissolved Oxygen Meter | open competitive bidding |
| 74 | Electric Conductivity Meter | open competitive bidding |

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|---------------------------------|---|--------------------------|
| 75 | SEM (Scanning Electron Microscope) | open competitive bidding |
| 76 | PCR | open competitive bidding |
| 77 | Ultra Sonic Oven | open competitive bidding |
| 78 | Water Quality Analyzer (Water Logger) | open competitive bidding |
| 79 | Incubator | open competitive bidding |
| 80 | Laminar Flow Chamber | open competitive bidding |
| 81 | Microscope | open competitive bidding |
| 82 | Zeta Sizer (particle Size analyzer) | open competitive bidding |
| 83 | BET Surface Area Analyzer | open competitive bidding |
| 84 | Chemical Reagents & Glassware | open competitive bidding |
| 7. HYDRAULICS LABORATORY | | |
| 85 | Basic Self Contained Flume - 10 Meter (No Electric) | open competitive bidding |
| 1.8) | Powered Jacks for Flumes | open competitive bidding |
| 1.10) | Plate Weirs | open competitive bidding |
| 1.11) | Broad Crested Weirs - (GRP) | open competitive bidding |
| 1.12) | Venturi Flume - (GRP) | open competitive bidding |
| 1.13) | Ogee Weir and Manometer Board - (GRP) | open competitive bidding |
| 1.14) | Dam Spillway Model | open competitive bidding |
| 1.15) | Siphon Spillway | open competitive bidding |
| 1.16) | Syphon Spillway | open competitive bidding |
| 1.17) | Roughened Beds - (GRP) | open competitive bidding |
| 1.18) | Vibrating Pile | open competitive bidding |
| 1.19) | Lift and Drag Balance and Models | open competitive bidding |
| 1.20) | Pitot Tube and Manometer - (GRP) | open competitive bidding |
| 1.21) | Crump Weirs | open competitive bidding |
| 1.22) | Parshall Flume - (GRP) | open competitive bidding |
| 1.23) | Trapezoidal Flume | open competitive bidding |
| 1.24) | Wave Generator | open competitive bidding |
| 1.25) | Beach | open competitive bidding |
| 1.26) | Zagni Flow Monitoring System | open competitive bidding |

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| 1.27) | Instrument Carrier | open competitive bidding |
| 1.28) | Velocity Meter and Mounting | open competitive bidding |
| 1.29) | Random Wavemaker c/w software and associated hardware | open competitive bidding |
| 1.30) | Software Control and Data Acquisition Package | open competitive bidding |
| 1.31) | Data Logging & Instrumentation Package | open competitive bidding |


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Annual Procurement Plan

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|--------|-----------------------------|--------------------------|
| 1 | Office Work Table | open competitive bidding |
| 2 | Office Side Table | open competitive bidding |
| 3 | Revolving Chair | open competitive bidding |
| 4 | Guest Chair | open competitive bidding |
| 5 | Filing Cabinet (Steel/wood) | open competitive bidding |
| 6 | Generator | open competitive bidding |
| 7 | AC | open competitive bidding |
| 8 | Photo copier | open competitive bidding |
| 9 | Scanner | open competitive bidding |
| 10 | Computers | open competitive bidding |
| 11 | Laptop | open competitive bidding |
| 12 | Printers-Color | open competitive bidding |
| 13 | Printers-B&W | open competitive bidding |
| 14 | Multimedia | open competitive bidding |




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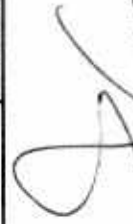
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|-------------------------------------|--|--------------------------|
| 1 | Learning Management Software | open competitive bidding |
| 2 | Computer Servers | open competitive bidding |
| 3 | Teaching Aids (for classrooms, seminar hall and meeting rooms) | open competitive bidding |
| AV / Communication Equipment | | |
| 4 | Video Conferencing System | open competitive bidding |
| 5 | Audio/Video Recording System | open competitive bidding |
| 6 | Voice Communication System | open competitive bidding |


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| 1 | Group Health Insurance | open competitive bidding |



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