

**UNIVERSITY OF JAMMU**  
**DEPARTMENT OF GEOLOGY, UNIVERSITY OF JAMMU-180006**

**Department of Geology, University of Jammu, Jammu & Kashmir** is interested in the Setup Computer Workstation LAB as per specifications given in the Annexure 1. The Department invites sealed bids/tenders bids from reputed Manufacturers or their Authorized Distributors / Dealers for supply Installation and Training and training of Workstation commuter LAB

Interested parties may submit their sealed bids online as per Technical Specifications given at Annexure 1 and General Terms & Conditions given at Annexure II. . The tender be published online on <https://jktenders.gov.in>. The **TECHNICAL BID** and **PRICE BID** has to be submitted online before the due date i.e 25<sup>th</sup> Nov., 2019 Whereas hard copy of the **TECHNICAL BID** along with EMD has to reach to the office of the **Head of the department, Department of Geology, University of Jammu, Jammu 180006** before the due date in a sealed envelope (duly superscripted with Tender No. and date).

**For any query pertaining to this tender contact Professor A.S. Jasrotia.**

**Department of Geology, University of Jammu, Jammu 180006.**

The technical bid will be evaluated first and price bid will be opened only in respect of those Vendors, who are found technically qualified after evaluation of Technical Bid.

The Technical bid will be opened on 26 th Nov., 2019 in the Department of Geology, University of Jammu, Jammu - 180006

**Professor & Head**  
**Department of Geology**  
**University of Jammu, Jammu-180006**

**Ref No. PGD/Geol/19/538**

**Dated: 1-11-2019**

**BOQ for Setting up-workstation Computer Lab**  
**(To Be Submitted Online)**

SL No	Item Description	Quantity	Unit Price	Total Price
1	SITC of Workstation Computer with Display Specifications as per Annexure – 1	10		
2	SITC of Desktop Computer with Display Specifications as per Annexure – 1	10		
3	SITC of 20 KVA Online UPS Specifications as per Annexure – 1	1		
4	Upgradation of Existing Server Specifications as per Annexure – 1	1		
5	Networking of Computer LAB Specifications as per Annexure – 1	1		
6	SITC of Microsoft Server Software Specifications as per Annexure – 1	1		
7	SITC of Microsoft Office Specifications as per Annexure – 1	15		
8	SITC of Supply and Installation of A4 Multifunctional Laser Printer as per Annexure – 1	3		

## Detailed Technical Specifications

### 1. SITC of Workstation Computer with Display

Sl. No.	Features	Qualifying Minimum Requirements
	Make:	HP , DELL , Lenovo
1	Processor	1 X Intel® Xeon® Silver 4114 Processor
2	Chipset	Intel C622
3	RAM	64 GB ECC, DDR4, 2666 MHz memory; 6 channel Memory support with Total 12 DIMM Slots
4	Drive Controllers	Onboard 6-Channel SATA @ 6Gb/s (RAID 0,1,and NCQ) Optional MicroSemi SAS Controller
5	Hard Disk	1x 512GB M.2 SSD and 1 x 4TB SATA HDD
6	Optical Drive	9.5mm Slim SuperMulti DVD Writer
7	Graphics Card	NVIDIA Quadro P2000 5GB (4) DP Graphics Card
8	Bays	2 x External 5.25’’ 2 x Internal 2.5" / 3.5’’ 2x M.2PCIe Gen 3 x4 Slots Slim Optical Drive bay
9	Slots	2 x PCIe x16 Gen3 3 x PCIe x4 Gen3 1 x PCIe x8 Gen3  All PCIe slots should be open-ended.
10	Security	Self Healing BIOS with Enhanced security, BIOS controlled electro-mechanical internal chassis lock for the system. Inbuilt Utility to securely erase your data; once applied data should not be recoverable.
11	Ports	Front : 2 USB 3.1, 2 USB 3.1 Type C , 1 Headset Audio, 1 Microphone Rear : 6 USB 3.1, 2 USB 2.0,2x RJ-45 integrated Gigabit LAN ( 1x supporting AMT), 2 PS/2, 1 Audio Line-In, 1 Audio Line-Out, Provision to add Dual 10 GbE network
12	Keyboard and Mouse	Minimum 104 keys USB Keyboard and USB Optical Scroll mouse - Same make as that of the workstation
13	Audio	High Definition Integrated Audio with Internal speaker.
14	Power Supply	Minimum 1000W 90% Efficient Power supply with 2 Graphics Power adapter  EPEAT Silver certification for the system model. Power supply should support standalone self test.

15	Chassis	Completely tool less chassis with handles in front and rear side. Provision for Kensington lock and Panel lock required. Integrated handles on the chassis. System should be rack-mountable.
16	Operating System	windows 10 Pro for Workstations Plus (Deepens on the Processor Choice). System should be certified for running RHEL and SLED.
17	Remote Collaboration Solution	<p>Hardware or Software based Remote Collaboration system which can help remotely access 3D data across network has to be supplied with the system.</p> <ul style="list-style-type: none"> <li>- It should allow collaboration between multiple participants on an OpenGL 3D or DirectX applications.</li> <li>- It should support One to One for remote work and One to many for collaboration with keyboard and mouse control.</li> <li>- Application should be stateless and should not transfer actual data over the network.</li> <li>- Pixel information or images should be 128 SSL encrypted.</li> <li>- Should work on both Linux and Windows, and should be inter-operable.</li> </ul>
18	Additional Software	<p>1. The hardware vendor should supply an automatic system performance tuning and monitoring software on Windows.</p> <p>2. The tuning software should have modules for resource monitoring over a long period of time, and should be capable of showing GPU utilization (GPU, Graphics memory and Codec activity) for both Graphics and GPU Compute cards.</p> <p>3. A complete Offline Diagnostics and Asset Discovery software suite should be supplied along with the system.</p>
19	OEM Status	The hardware vendor (OEM) should be a reputed concern, having global presence in multiple countries. Vendor should have ISO certifications.
20	Monitor	Minimum 23 Inch IPS LED monitor, Full HD 1920 x 1080 @ 60 Hz, Brightness: 250 cd/m2, 1 X Display Port, 1 X HDMI Port, 1 X VGA Port, Stand should be Height Adjustable, display Rotation into portrait/landscape positions , The monitor should be of same OEM as of workstation.
21	Warranty	3 years onsite parts and labor warranty for system and monitor

## 2. SITC of Desktop Computer

Sl. No.	Features	Qualifying Minimum Requirements
	Make:	HP , DELL , Lenovo
1	Processor	<p>Intel® 9th Generation Core i7-9700 with minimum clock speed of 3.0 GHz base frequency</p> <p>Up to 4.7 GHz max. turbo frequency with Intel® Turbo Boost Technology,12 MB cache, 8 cores or better</p>
2	Chipset	Intel Q370 chipset
3	Motherboard	OEM Motherboard with OEM logo embossed on the motherboard (No Sticker)

4	Memory	8 GB DDR4 RAM expandable to 128 GB;
		Four DIMM slots; Non-ECC dual-channel up to 2666 MT/s DDR4 SDRAM
5	Optane	Intel Optane Memory 16GB
6	Hard Disk Drive	1TB SATA 7200 RPM 3.5" SATA + 256 GB 2.5in SATA Three Layer Cell SSD
7	Optical Drive	8x DVD Writer
8	Graphics	2 GB Dedicated graphics card
9	Audio	High Definition Integrated Audio with Internal Speaker
10	Ethernet	Integrated Gigabit (10/100/1000 NIC) LAN
11	Wireless	Inbuilt 802.11ac 2x2 with Bluetooth®
12	Slots	Minimum 4 PCI/PCIe Slots (1 x PCIe16, 1 x PCIe4, 1 x PCIe1, 1 PCI) & 2x (M.2 PCIe)
13	Bays	Minimum 4 bays with at least (1) 3.5" Drive bays & (2) 2.5" drive bay (1) ODD bay
14	Ports	Minimum 11 USB Ports (6 USB 3.1 gen 1, 4 USB 2.0, 1 USB Type C 3.1 Gen 1)
		out of which 5 USB Ports should be in front for easy access
		1 Universal audio jack for headphone / Mic
		(1) HDMI video port; (2) DisplayPort/DVI-D Port
		(1) RJ-45 network connector
		(1) RS-232 serial port
		1 Audio-out
		1 Audio in
15	Form Factor	Tower
16	Power Supply	400 W or higher active PFC Power Supply with 92% efficiency or better
17	Keyboard/Mouse	USB 104 keys keyboard (Same make as PC)
		USB 2 Button Scroll Mouse (Same make as PC)
18	Operating System	Genuine Microsoft Windows 10 Pro 64-bit
19	Diagnostic Tool	Inbuilt Pre-Boot BIOS Diagnostics
20	Security	TPM 2.0 Security Chip
		SATA 0,1 port disablement (via BIOS)
		Serial, USB enable/disable (via BIOS)
		Solenoid Lock / Hood Sensor
		Support for chassis padlocks and cable lock devices
		Drive Lock

		Boot Sectors Protection
		Drive Protection System
		Power On Authentication
21	Compliance And Certification	Energy Star for the quotes desktop & Monitor
		EPEAT India registered for the quoted desktop & Monitor
		FCC.CE,RoHS, UL Certificate
		ISO 9001,14001,20001,27001
22	System Weight / Volume	Weight should be no more than 7.5KG and volume no more than 16 L
23	Information Accessibility	Product details, specifications and brochure to be available in public domain
24	Support	Drivers should be available for download from OEM site for at least 3 years from the date of purchase order
25	Market Credibility	The OEM vendor should be of positive net worth for the last three years
26	Monitor	21.5" LED with 1920 x 1080 @ 60 Hz resolution with DVI-D & VGA ports, 200 nits Brightness,
27	Warranty	The System should have comprehensive warranty of at least 3 Years or more

### 3. SITC of 20 KVA Online UPS

Sl. No.	Features	Qualifying Minimum Requirements
	Make:	Schneider, ABB , Mitsubishi
1	UPS Capacity	20 KVA / 20 KW 3 Phase 50 C/S
2	UPS configuration	Standalone But it can be Parallel Redundant type upto 4 UPS
5	Battery Backup & Type Of Battery	30min With 36nos 42ah 12V SMF VRLA.
6	Min VAH required Rating wise	18144 VAH
8	Input Supply + Variation	380/400/415V AC, 50/60 Hz (40-70 Hz) 3 phase 4 wire connection
9	Input power factor	0.99
10	Output Supply + Variation	380/400/415V AC +/-3% 50/60 Hz +/- 0.1% free running
11	Technology	True on line double conversion IGBT based PFC rectifier and IGBT based PWM inverter (3 level inverter preferred)
13	Duty condition	UPS should be able to operate at upto 40 deg C

14	Out put load unbalancing capability	100% unbalanced non-linear load
15	Power walk in (time required for UPS to take rated load at the time of starting)	1 Sec. through 30 Seconds (every 1 Second selectable (0-100% rated loads) Default setting 20 seconds.
16	Step load change	100% step load change
17	Overload Capacity	110% for 1 hr, 125% for 10 min, 150% for 1 min
18	Crest factor	3:1
19	Output voltage distortion	<2% for linear load, <3% for 100% non-linear load
20	Noise level	<65 dBA
21	Output Power Factor	1.0 (Unity), Incase, Vendor does not comply, the next higher UPS rating shall be proposed
22	1 Years Warranty with UPS and 2 years with Batteries	To be included in rates
23	Overall efficiency at 100% load	96%
24	Load bank testing	There should be provision for UPS functional testing without external load bank. If this is not available in-built, then SAT with load bank and necessary cabling is mandatory. UPS vendor to consider load bank and cabling to UPS in their scope
25	Waveform capture	In-built provision for measuring and recording waveform is required. If this facility is not available in-built, then oscilloscope with aux power supply to be considered in BOQ by UPS vendor . Internal connection between UPS and oscilloscope, and oscilloscope to aux power supply to be done by UPS vendor
26	Breakers within UPS frame	Input, Output, Bypass, Maintenance Bypass Breakers required, rated for full frame capacity. If breakers are not in-built, then separate termination panel with 4 in-built breakers to be considered by UPS vendor as per BOQ
27	Battery Protection	The DC protection shall be ensured by a DC MCCB with under voltage trip coil to isolate the battery bank from UPS during fault at the either side of the DC bus. It shall provide protection against deep discharge of the batteries by automatically disconnecting battery bank from UPS after low battery shutdown. It shall also isolate the battery bank from UPS during activation of EPO command. It should have aux contacts to notify the UPS of BCB status
28	Min DC breaker rating	63 Amp
29	Charger Capacity	Minimum 20% of output power
30	Display	Separate Mimic Panel & LCD display
31	Event Log	Minimum 100 time stamped events logged
32	The unit should be able to work without the batteries connected to it.	Required
33	Conformal coating of PCBAs	Required
34	Cold start with batteries	Required
35	Dust filter	Required
36	ISO 50001 "Energy Management Systems Requirement" Certification shall be provided	Required

#### 4. Upgradation of Existing Server

Sl. No.	Features	Scope of Work
	Work to be Done	Upgradations to be Done
1	Upgradation of Existing HPE ML 350 Gen 9 Server	<ol style="list-style-type: none"> <li>Existing RAM in server is 16 GB (8 GB X 2 ); to be upgraded to 64 GB as per server compatibility, appropriate DIMM Modules to be supplied and installed in the server</li> <li>Existing Hard drive in the server is 1.8 TB SAS (600GB X 2) ; to be upgraded to 3.6 TB as per server compatibility, Appropriate Hard Drives to be supplied and installed in the server</li> </ol>

#### 5. Networking of LAB

Sl. No.	Features	Scope of Work
	Work To Be Done	
1	Networking of Computer LAB	<p>Networking of Computer Lab Consist of Following Components</p> <ol style="list-style-type: none"> <li>SITC of 1 Nos Layer 2 Manageable Network Switch 1U Rack Mountable with 24 x 10/100/1000 RJ45 ports &amp; 4 x Gigabit SFP Ports (2 combo), Switching capacity: 56 Gbps, RAM: 512 MB, Flash memory: 256 MB flash, Make: Cisco, HPE, Juniper Networks</li> <li>SITC of 12 U Network Rack, Dimensions: Compatible with above switch, Front Glass Door with Lock and Key, Wall Mount.</li> <li>SITC of 1 Nos 24 Port CAT 6 Patch Panel loaded. Make: Molex, AMP, R&amp;M</li> <li>SITC of 20 Nos of Information Outlet with SMB, Face Plate and Data Jack, Make: Molex, AMP, R&amp;M</li> <li>SITC of CAT 6 Patch Cords 2 Meter length and 1 Meter Length 20 Nos Each. Make: Molex, AMP, R&amp;M</li> <li>SITC of UTP CAT 6 Cable with PVC Electrical Conduit, includes Bends and Joints, nut and bolts as required on site. And making the network operational, i.e. connectivity from server to workstations, making the computer network within the lab operational in all respects</li> </ol>

#### 6. SITC of Windows Server Software

Sl. No.	Features	Scope of Work
	Work To Be Done	
1	SITC of Windows Server	Supply and Installation of 1 Nos Software Windows Server Standard 2019 for 16 Core Processor academic version with 15 Nos of Device Client Access Licenses. The software should be in the form of E-license and will be verified on Microsoft website. The vendor has to install windows server in the existing server and create active directory. The vendor will connect the workstations with the active directory.

#### 7. SITC of Microsoft Office

Sl. No.	Features	Scope of Work
	Work To Be Done	
1	SITC of Microsoft Office Software	Supply and Installation of Microsoft office Pro Plus 2019 Software in all the workstations and Server. The software should be in the form of E-license and will be verified on Microsoft website.



## 8. SITC of Printer

Sl. No.	Features	Qualifying Minimum Requirements
1	SITC of Multifunctional Laser Printer	Supply and Installation of A4 Multifunctional Laser Printer, Type of Printer: Print & Scan & Copy (Multifunctional) Print Speed: 25 PPM RAM: 256 MB Duty Cycle: 15000 Pages Per Month Network Interface RJ45: Yes Wireless Interface: Yes Scanner ADF: Yes USB: Yes Cartridge Type : Composite (Single Unit) Warranty: 3 Years Make: Canon / HP / Epson

**Annexure-II**  
**General terms and conditions**

1. Rates should be F.O.R. Jammu University Campus or in case of foreign manufacturer kindly quote F.O.R Jammu University Campus in foreign currency. Also quote tentative charges for customer Duty, Clearance charges and Transportation and Insurance upto Jammu separately.
2. Goods must conform to our indicated specifications. Detailed technical and other specifications/ literature must be enclosed.
3. Indicate concessional rates of tax for educational institutions. The GST rates must be clearly mentioned separately.
4. The submission of the tenders will be online. The Technical Bid and Price bid has to be submitted online on [www.jktenders.gov.in](http://www.jktenders.gov.in). Whereas the hard copy along with EMD has to be submitted offline on or before due date in a sealed envelope.
5. Earnest Money Deposit (EMD) of 2% of quoted price to be submitted along with commercial bid. Bids without EMD will be rejected.
6. The warranty of the product should be at least Three Years.
7. The rates should be valid for 120 days. Both technical bid and the commercial bid addressed to undersigned and duly sealed/signed and tapped with official stamp should reach this office latest by 25th Nov., 2019.
8. Bidder should submit **Purchase orders** and /user List as a proof of the dealing with other Government organizations/Institutions. The date of the supply order should be within last Three years from the date of publishing the BID.
9. Bidder should submit Valid Authorization Certificate from OEM for Item No 1 & 2 & 3 against this NIT.
10. The firm/bidders should provide non blacklisting certificate mentioning it should not have criminal records/cases/activities.
11. Reports on Financial standing of the bidder such as profit and loss statement, balance sheet and auditor reports for the **past three years**, banker's certificate etc. should be provided by the bidders.
12. The bidder's firm should be established since last 5 years Documentary Evidence to be submitted along technical BID.
13. Bidder should give undertaking regarding installation/Commissioning Training/Demonstration and after sales service of the entire Setup. The Bidder should provide at least three free trainings for the instrument.
14. The bidder should have enough strength of people for the after sales support with their branch offices near to Jammu/Chandigarh. The details of Service Centre and Office addresses along with Service personnel need to be shared for the verifications.
15. The successful Bidder must provide Bank Guarantee equivalent to 10% of the cost of equipment to the Value of Order from Nationalized or Scheduled bank.
16. Self-attested copies of GST and PAN card and Firm registration certificates to be submitted.
17. The bidder should have ISO or equivalent quality Certification.
18. The delivery, installation and operational training of the instruments/equipment should be completed within 45 days from placing of the order.
19. All Documents submitted in technical BID should be self-Attested (Signed and Stamped).
20. The evaluation of the Price BID will be on total value of all the goods.

**UNIVERSITY OF JAMMU  
DEPARTMENT OF GEOLOGY, UNIVERSITY OF JAMMU-180006**

**Date: 21-11-2019**

**No. PGD/GEOL/19/600**

**Corrigendum # 1**

**Subject: Setting-up of workstation computer LAB.**

**Following amendments are hereby made in the tender documents issued vide NIT No. PGD/Geol/19/538 Dated 1-11-2019.**

**“The Technical Specifications for above said NIT for Item No. 1 of Annexure -1 are attached in Annexure – B with this Corrigendum”.**

**The other contents of the tender shall remain unchanged.**

**Professor & Head  
Department of Geology  
University of Jammu, Jammu-180006**

## Annexure – B

Sl. No.	Features	Qualifying Minimum Requirements
	Make:	HP , DELL , Lenovo
1	Processor	1 X Intel® Xeon® W2104
2	Chipset	Intel C422
3	RAM	32 GB ECC, DDR4, 2666 MHz memory; Expandable UPTO 512 GB, 6 channel Memory support
4	Drive Controllers	Onboard 6-Channel SATA @ 6Gb/s (RAID 0,1,and NCQ) Optional MicroSemi SAS Controller
5	Hard Disk	1x 256 GB M.2 SSD and 1 x 4TB SATA HDD
6	Optical Drive	9.5mm Slim SuperMulti DVD Writer
7	Graphics Card	NVIDIA Quadro P1000 4GB Graphics Card
8	Bays	2 x External 5.25" 2 x Internal 2.5" / 3.5" 2x M.2PCIe Gen 3 x4 Slots Slim Optical Drive bay
9	Slots	2 x PCIe x16 Gen3 2 x PCIe x4 Gen3 1 x PCIe x8 Gen3  All PCIe slots should be open-ended.
10	Security	Self Healing BIOS with Enhanced security, BIOS controlled electro-mechanical internal chassis lock for the system. Inbuilt Utility to securely erase your data; once applied data should not be recoverable.
11	Ports	Front : 4 USB 3.1 , 1 Headset Audio, 1 Microphone Rear : 6 USB 3.1, 2x RJ-45 integrated Gigabit LAN, 2 PS/2, 1 Audio Line-In, 1 Audio Line-Out,
12	Keyboard and Mouse	Minimum 104 keys USB Keyboard and USB Optical Scroll mouse - Same make as that of the workstation
13	Audio	High Definition Integrated Audio with Internal speaker.
14	Power Supply	Minimum 1000W 90% Efficient Power supply with 2 Graphics Power adapter  EPEAT Silver certification for the system model. Power supply should support standalone self test.

15	Chassis	Completely tool less chassis with handles in front and rear side. Provision for Kensington lock and Panel lock required. Integrated handles on the chassis. System should be rack-mountable.
16	Operating System	windows 10 Pro for Workstations Plus (Depends on the Processor Choice). System should be certified for running RHEL and SLED.
17	OEM Status	The hardware vendor (OEM) should be a reputed concern, having global presence in multiple countries. Vendor should have ISO certifications.
18	Monitor	Minimum 21.5 Inch IPS LED monitor, Full HD 1920 x 1080 @ 60 Hz, Brightness: 250 cd/m <sup>2</sup> , 1 X HDMI Port, 1 X VGA Port, Stand should be Height Adjustable, The monitor should be of same OEM as of workstation.
19	Warranty	3 years onsite parts and labor warranty for system and monitor

**UNIVERSITY OF JAMMU  
DEPARTMENT OF GEOLOGY, UNIVERSITY OF JAMMU-180006**

**Date: 25-11-2019**

**No. PGD/GEOL/19/621**

**Corrigendum # 2**

**Subject: Purchase of**

**Following amendments are hereby made in the tender documents issued vide NIT No. PGD/Geol/19/538 Dated 1-11-2019.**

**“Time for submitting bid for the said tender is hereby extended till 2-12-2019”.**

**The other contents of the tender shall remain unchanged.**

**Professor & Head  
Department of Geology  
University of Jammu, Jammu-180006**

