NATIONAL COUNCIL OF SCIENCE MUSEUMS SECTOR-V, BLOCK-GN, BIDHANNAGAR, KOLKATA – 700 091. I-18012/7/21(110)

Technical Specification

1. Desktop PC -04 Nos.

Specifications for a Desktop PC — 4mol

Operating System: Windows 10 Professional 64bit (Licensed)

Processor: 11th Gen Intel® Core™ i7-11700F processor (8-Core, 16M Cache, 2.5GHz to 4.9GHz)

Processor family: 11th Generation Intel® Core™ i7 processor

Memory: 16GB, 16Gx1, DDR4, 2933MHz

Hard drive: 512GB M.2 PCIe NVMe Solid State Drive + 1TB 7200 rpm 3.5" SATA Hard Drive

Graphics: NVIDIA GeForce GTX 1650 Super 4 GB GDDR6

Graphics Output: HDMI 2.0b, DisplayPort 1.4 port, DVI-D port

USB Ports: 6 ports; 2x front and 3x rear USB 3.1 Gen2; 2x USB 2.0 via internal headers; USB

Revision 2.0, 3.1 Gen2

RAID Configuration: 2.5" HDD/SSD + M.2 SATA SSD (RAID-0 RAID-1)

SATA 6.0 Gb/s Ports : 4 Thunderbolt™ 3 Ports : 1

Expansion slots: PCI Express Revision - Gen3;PCI Express Configurations ‡ - M.2 slot with PCIe

X4 lanes;

Integrated Bluetooth: Yes

Removable Memory Card Slot: microSDXC with UHS-I support;

M.2 Card Slot (storage): 22x42/80

Audio: 7.1 digital (HDMI mDP); L+R mic (F)

Network interface: Integrated LAN Intel® Ethernet Connection I219-V; Integrated Intel® Wi-Fi 6

2x2 (Gig+) and Bluetooth

Pointing device: USB Hardened Mouse

Keyboard: USB Wired Keyboard

Security & Reliability: Intel® AES New Instructions

Warranty: 3 year warranty and service offering includes 3 years of parts, labor and on-site

repair.

Services: Receive 3 years of next business day onsite repair from a qualified technician for your

computing device.

Workstation with following specifications −2 set

Tower Workstation -	1 no.
1000 W internal power supply, up to 90% efficiency, active PFC -	1 no.
Windows 10 Pro 64 downgrade to Windows 7 Pro 64 -	1 no.
Windows 10 Professional 64-bit OS DVD + Driver DVD -	1 no.
Single Unit Packaging -	1 no.
Intel® Core™ i9-10940X (3.3 GHz base frequency, up to 4.8 GHz with Ir	ntel® Turbo Boost Technology,
19.25 MB L3 cache, 14 cores) -	1 no.
512 GB SATA Solid State Drive -	1 no.
1TB 7200 RPM SATA 1st Hard Drive -	1 no.
32GB DDR4—2933 ECC SDRAM (2x16GB) -	1 no.
NVIDIA® Quadro RTX™ 6000 (24 GB GDDR6 dedicated)	no.
DisplayPort To DVI-D Adapter (4-Pack)	1 no.
USB Keyboard -	1 no.
USB Optical Mouse -	1 no.
9.5mm Slim SuperMulti DVDRW 1st ODD -	1 no.
Dual Processor Air Cooling Kit -	1 no.
3 years parts, 3 years labor, and 3 years onsite service standard limited	warranty 1 no.
Operating System Load to SATA/SAS -	1 no.

Software:

- 1. The hardware vendor should supply an automatic system performance tuning software, which ensures optimum performance tuning for leading CAD/CAM/CAE softwares on Windows.
- 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.
- ${\bf 3.}$ A complete Offline Diagnostics and Asset Discovery software suite should be supplied along with the system.

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Dated :

Remote Collaboration Software:

- System should be preloaded with software which can help remotely access 3D data across network and help collaboration.
- The software should allow collaboration between multiple participants on an OpenGL 3D application.
- It should support One to One for remote work and One to many for collaboration with keyboard and mouse control.
- Application should be stateless and should not transfer actual data over the network.
- Pixel information or images should be 128 SSL encrypted.

Above items must either come with or be in compliance with following features:

- Drive Protection System A diagnostic hard drive self-test. It scans critical physical
 components and every sector of the hard drive for physical faults and then reports any
 faults to the user. Running independently of the operating system, it can be accessed
 through a Windows-based diagnostics utility or through the computer's setup procedure.
 It produces an evaluation on whether the hard drive is the source of the problem and
 needs to be replaced.
- Self-Monitoring, Analysis and Reporting Technology Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted.
- Drive Failure Prediction Predicts failures before they occur. Tracks fault prediction
 and failure indication parameters such as re-allocated sector count, spin retry count,
 calibration retry count.
- Off-Line Data Collection By avoiding actual hard drive failures, SMART hard drives
 act as "insurance" against unplanned user downtime and potential data loss from hard
 drive failure.
- Off-Line Read Scanning with Defect Reallocation IOEDC: I/O Error Detection Circuitry
 - Detects errors in Read/Write buffers on HDD cache RAM.
- The product must be in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2002/95/EC.
- The product must be designed to comply with the Waste Electrical and Electronic Equipment
 - (WEEE) Directive 2002/96/EC.
- The product must be in compliance with the IEEE 1680 (EPEAT) standard at the Gold
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and DA - ISO1043.

Dated :

ANNEXURE F-1

NATIONAL COUNCIL OF SCIENCE MUSEUMS SECTOR-V, BLOCK-GN, BIDHANNAGAR, KOLKATA – 700 091.

TENDER NO. I-18012/7/21(110)

SUPPLY OF Desktop PC and Workstation Computer AS PER ENCLOSED TECHNICAL SPECIFICATION Annexure F and NIT of tender document.

Make & Model Sheet

SI. No.	Description of Items	Quantity	Make & Model Offered (To be entered by bidder)
01	Desktop PC	4 Nos.	
02	Workstation Computer	2 Nos.	

Dated :