DEPARTMENT OF BIOTECHNOLOGY & BIOINFORMATICS
SAMBALPUR UNIVERSITY, JYOTI VIHAR-768019, SAMBALPUR, ODISHA

No. 05/BTBI/MRIP **Date: 17/11/2026**

QUOTATION CALL NOTICE FOR HIGH-PERFORMANCE AI/ML AND COMPUTATIONAL RESEARCH WORKSTATION

1. Sealed quotations are invited from intending manufacturers/ dealers/ suppliers/ firms having a valid GST certificate for supply of a High-Performance AI/ML and Computational Research Workstation **on or before 03.12.2026 up to 4.00 PM**.

The details of the requirement can be obtained from the undersigned or by visiting the Sambalpur University website (www.suniv.ac.in). The authority reserves the right to cancel the quotation call and advertisement without assigning any reason thereof.

Sd/-
PI, MRI PROJECT
BT & BI, SU

Memo No. 06/BTBI/MRIP **Date: 17/11/2026**

Copy to:

1. Deputy Director, Advertisement, Information and Public Relations Department, Govt. of Odisha, Bhubaneswar, with a request to publish the advertisement in the following Odia/English dailies with minimum size as prescribed by I&PR Department, Govt. of Odisha on or before **19.11.2026**
   A) The Samaja (Bhubaneswar Edition)
   B) The Times of India (Bhubaneswar Edition)
   He/She is further requested to submit the bills in triplicate to Dr. Bhawani Prasad Bag, PI-MRI Project, Department of Biotechnology & Bioinformatics, Sambalpur University, Jyoti Vihar, Burla – 768019, along with a copy of the advertisement for payment.

2. Director, E-Governance, Sambalpur University to upload to the University Website.

17/11/26

PI, MRI Project
Dept. of BT & BI
Sambalpur University

Principal Investigator (MRI)
Index No. 25EM/BT/13
Department of BT & BI
Sambalpur University
Jyoti Vihar, Burla, Sambalpur

INFORMATION BOOKLET

ON

QUOTATION CALL NOTICE FOR

HIGH-PERFORMANCE AI/ML AND COMPUTATIONAL RESEARCH WORKSTATION

For the MRI Project (MRIP-2025) of Dr. Bhawani Prasad Bag, Dept. of Biotechnology & Bioinformatics, Sambalpur University

Letter No. 05/BTBI/MRIP **Dated: 17.11.2026**



SAMBALPUR UNIVERSITY

JYOTI VIHAR, BURLA-768 019, ODISHA

Letter. No. 05/BTBI/MRIP ***Dated: 17.11.2026***

QUOTATION CALL NOTICE

Sealed quotations are invited from the interested Manufacturers/Authorized dealers/Suppliers/ Registered firms to supply a High-Performance AI/ML and Computational Research Workstation for the MRIP – 2025 extramural Grant of Dr. Bhawani Prasad Bag, Department of Biotechnology and Bioinformatics, Sambalpur University, on 'FOR' destination basis. ***The last date of submission of quotation is 03.12.2026 up to 4.00 P.M.*** Valid copy of PAN/GST No. and a bank draft of 2.0% of the quoted price as EMD, drawn in favour of Comptroller of Finance, SU, of any bank payable at State Bank of India, Jyoti Vihar Branch, Burla, Code No.6672. The EMD should be enclosed along with the quotation; otherwise, the quotations will be rejected. The PI, MRI Project, BT & BI, Sambalpur University reserves the right to reject any or all quotations without assigning any reason thereof.

Terms & conditions:

1. The quotation shall be submitted with separate technical specifications and financial bid in a sealed cover. On the top of the envelope, please mention 'MRIP - 2025''
2. The sealed quotations in the name of the 'PI, MRI Project, Department of Biotechnology & Bioinformatics, Sambalpur University, Jyoti Vihar, Burla, Odisha 768019' will be received up to 4.00 P.M. on all working days up to 03.12.2026 by speed post/registered post only. The quotations may be sent to Dr. Bhawani Prasad Bag, PI, MRI Project, Department of Biotechnology and Bioinformatics, Sambalpur University, Jyoti Vihar-768 019, Sambalpur, Odisha.
3. The suppliers must be either the manufacturer of the instruments/equipment or the authorized dealer/agent/representative of the manufacturer or a registered firm. In the case of a dealer/agent/representative, a certified valid copy of the dealership/agency/authorization issued by the manufacturer should be enclosed with the quotation.
4. The detailed specifications and other necessary information of the instrument/equipment are given in this notification. The suppliers may refer to the desired instrument/equipment.
5. The rates/price should be quoted in Indian currency. The F.O.R. – Sambalpur University and prices should include GST as applicable as per Government of India policy.
6. Delivery of the workstation shall be to Dr. Bhawani Prasad Bag, PI, MRI Project, Department of Biotechnology and Bioinformatics, Sambalpur University, Jyoti Vihar-768019 unless otherwise specified. The price shall be inclusive of all taxes, transportation

costs, and cost of installation/commissioning, trial operation, comprehensive training, clearance charges (FOR Sambalpur University, Jyoti Vihar), and all other applicable charges.

7. 100% payment will be made after delivery and installation of the ordered items.

8. The EMD (2.0% of the quoted price) of the successful tenderer will be refunded after completion of the supply and installation of the equipment to our satisfaction.

9. Documents such as instrument operation, calibration, maintenance, drawings, descriptive literature, etc., if any, along with the original instruction and data analysis manual should be supplied by the successful tenderer along with the equipment.

10. Instruments/equipment should be unpacked in the presence of the concerned person of Sambalpur University. The consignment will be accepted only after inspection.

11. Inspection certificates of the instrument/equipment inspected by the qualified engineer of the manufacturer and packed in accordance with the terms and conditions of this order must be enclosed.

12. During the warranty period or later, whenever the firm is called upon to attend to the rectification of the defects/faults in the consignments, the firm shall attend to the repair work within a week. They should render timely backup service whenever called upon. A certificate to that effect should be attached to the tender.

13. A certificate to the effect that the instrument/equipment supplied is fully operational and no additional accessory or spare is required to make the instrument/equipment run should be issued along with the delivery challan/invoice. The PI, MRI Project, BT & BI, Sambalpur University reserves the right to refuse payment in the event of not furnishing this certificate at the time of supply.

14. The PI, MRI Project, BT & BI, Sambalpur University reserves the right to accept/reject any tender without assigning any reason thereof.

15. Once the rate is approved by the Purchase Committee, a purchase order is placed on the successful tenderer for supply of the equipment/instrument. The decision of the Purchase Committee shall be final and binding.

16. All disputes are subject to the Court of Law in the jurisdiction of Sambalpur.

DETAILED SPECIFICATION

High-Performance AI/ML and Computational Research Workstation

Procurement of **one high-performance workstation** for computational research involving:

- Artificial Intelligence/Machine Learning and Deep Learning
- Bioinformatics and computational biology
- Molecular docking and virtual screening
- Molecular dynamics simulations using GROMACS
- DFT/quantum-chemical calculations
- QSAR/QSPR modelling
- Protein structure prediction and analysis
- AlphaFold/ColabFold and related computational workflows
- Python/R-based scientific computing
- GPU-accelerated scientific applications

1. Minimum Technical Specifications

Parameter	Minimum required specification
System type	Professional/high-performance desktop workstation
Processor	AMD Ryzen 9 9950X, 16 cores/32 threads, or processor of equal or higher computational performance
CPU architecture	Current-generation 64-bit architecture
CPU frequency	Base ≥ 4.0 GHz and boost ≥ 5.5 GHz preferred
GPU	**NVIDIA GeForce RTX 5070 Ti, minimum 16 GB GDDR7 VRAM**
GPU alternative	NVIDIA RTX 5080 16 GB or higher-performance NVIDIA GPU may be offered
CUDA	CUDA-capable NVIDIA GPU with Tensor Cores
GPU memory	**Minimum 16 GB dedicated VRAM**
System RAM	**64 GB DDR5**, preferably 5600 MT/s or higher
RAM configuration	Minimum 2 × 32 GB; dual-channel operation
RAM expansion	Minimum **128 GB** supported
Primary storage	**2 TB NVMe PCIe SSD**, Gen4 or better
Secondary storage	Minimum provision for additional 2-4 TB SSD/HDD
Motherboard/chipset	Workstation-grade AMD B850/X870 or equivalent
PCIe	PCIe Gen5 support preferred
M.2	Minimum 2 M.2 NVMe slots
Network	Minimum 2.5 Gb Ethernet
Wireless	Wi-Fi 6E or Wi-Fi 7
Bluetooth	Bluetooth 5.3 or higher
Power supply	**850 W minimum**, 80+ Gold, preferably ATX 3.1, fully modular

CPU cooling	360-mm liquid cooling or equivalent high-performance workstation cooling
Cabinet	High-airflow ATX workstation cabinet supporting installed GPU and cooling system
Operating system	Genuine Windows 11 Professional 64-bit
Linux compatibility	Ubuntu 24.04 LTS or later compatible
Display outputs	Appropriate HDMI/DisplayPort outputs through dedicated GPU
USB	USB 3.x and USB Type-C ports
TPM	TPM 2.0 or equivalent hardware security
Audio	Integrated HD audio
Keyboard	USB keyboard
Mouse	USB optical mouse
Monitor	27-inch or larger, QHD (2560×1440) or better, IPS/IPS-equivalent
Monitor connectivity	DisplayPort/HDMI
Warranty	**Minimum 3 years comprehensive onsite OEM/seller warranty**
Preferred warranty	**5 years onsite warranty**
Installation	Onsite installation and commissioning
Testing	Hardware diagnostics, CPU/GPU stress testing and system burn-in
Documentation	Complete configuration sheet, serial numbers, and warranty documents

2. GPU Requirement

Dedicated NVIDIA GPU with a minimum of 16 GB GDDR7/GDDR6X/GDDR6 VRAM and CUDA/Tensor Core support. NVIDIA RTX 5070 Ti 16 GB or higher is acceptable. NVIDIA RTX 5080 16 GB or higher is acceptable.

3. CPU Requirement

Minimum 16 physical CPU cores and 32 threads, current-generation x86-64 architecture, with high-performance single-core and multi-core processing capability. AMD Ryzen 9 9950X or equivalent/higher processor acceptable.

4. RAM

64 GB DDR5 RAM, configured as 2 × 32 GB modules, with a minimum 128 GB total system memory expansion capability.

5. Storage

Primary:
2 TB PCIe NVMe SSD, Gen4 or better, with a minimum sequential read speed of approximately 5,000 MB/s or higher.
Expansion: System shall support installation of at least one additional NVMe SSD and/or SATA storage device.

6. Software Compatibility

The supplier shall ensure compatibility with:

AI/ML

- Python
- Anaconda/Miniconda
- PyTorch
- TensorFlow
- CUDA Toolkit
- cuDNN
- scikit-learn
- XGBoost
- RDKit

Bioinformatics

- BLAST
- Biopython
- HMMER
- MAFFT
- Clustal
- AlphaFold/ColabFold
- PyMOL

Molecular modelling

- AutoDock Vina
- AutoDock
- GROMACS
- OpenMM
- NAMD
- AMBER-compatible workflows
- BIOVIA Discovery Studio

Quantum chemistry

- ORCA
- Gaussian
- Psi4
- Q-Chem-compatible workflows

7. Operating System

Mandatory: Windows 11 Professional 64-bit, genuine OEM licence

Linux: The workstation shall support **Ubuntu 24.04 LTS 64-bit**

The supplier should assist with installation/configuration of a dual-boot environment if required.

8. GPU Driver/CUDA Installation

As part of commissioning, the supplier shall:

1. Install the latest stable NVIDIA driver.
2. Verify CUDA functionality.
3. Verify GPU recognition using nvidia-smi (NVIDIA System Management Interface).
4. Conduct GPU stress testing.
5. Verify GPU temperature under sustained load.
6. Demonstrate CUDA/Tensor Core functionality.

A basic commissioning test should include:

nvidia-smi

and **a CUDA-enabled computational test**.

9. Performance Acceptance Testing

The workstation should be accepted only after successful completion of:

CPU

- CPU stress test for at least 30 minutes
- No thermal throttling or hardware errors

GPU

- GPU stress test for at least 30 minutes
- NVIDIA driver correctly installed
- Minimum specified VRAM confirmed

RAM

- Full 64 GB detected
- Memory diagnostic completed

SSD

- Full capacity verified
- NVMe interface verified

System

- Windows activation verified
- USB/network/Wi-Fi functionality verified
- Device Manager free of unidentified hardware

10. Warranty and Support

Mandatory

Minimum **3-year comprehensive onsite warranty** covering parts, labour, and onsite service.

Preferred: 5-year comprehensive onsite warranty.

Warranty shall cover:

- CPU
- motherboard
- RAM
- GPU
- SSD

- PSU
- cooling system
- cabinet
- monitor
- keyboard/mouse

The supplier shall provide:

- OEM/seller warranty certificate
- serial numbers
- escalation/contact details
- service response mechanism

11. Installation and Commissioning

The supplier shall provide:

Free on-site installation, configuration, testing, and commissioning at the purchaser's institution.

The supplier shall configure:

- BIOS
- Windows 11 Pro
- GPU driver
- CUDA-compatible environment
- network
- display
- hardware diagnostics

12. Training

One onsite/online orientation session for designated technical/research personnel covering system operation, GPU monitoring, driver management, basic troubleshooting, and backup procedures.

13. Documentation to be Submitted by Bidder

The bidder shall submit:

1. Detailed technical datasheet
2. Exact make and model of every major component
3. GPU model and exact VRAM
4. CPU model
5. Motherboard model
6. RAM manufacturer, capacity, and speed
7. SSD make/model/capacity
8. PSU make/model/wattage
9. Cooler make/model
10. Monitor make/model

11. Warranty certificate
12. OEM authorization, where applicable
13. Country of origin/manufacturing details as required under applicable procurement rules
14. Compliance statement against every technical specification

14. Mandatory Technical Compliance Table

Sl. No.	Specification	Required	Offered	Make/Model	Compliance
1	CPU	≥16 cores/32 threads			Yes/No
2	GPU	RTX 5070 Ti 16 GB or better			Yes/No
3	GPU VRAM	≥ 16 GB			Yes/No
4	RAM	64 GB DDR5			Yes/No
5	RAM expansion	≥ 128 GB			Yes/No
6	Primary SSD	2 TB NVMe			Yes/No
7	Motherboard	B850/X870/equivalent			Yes/No
8	PSU	≥ 850 W 80+ Gold			Yes/No
9	Cooling	360-mm AIO/equivalent			Yes/No
10	OS	Windows 11 Pro			Yes/No
11	Linux compatibility	Ubuntu 24.04			Yes/No
12	Network	≥ 2.5 GbE			Yes/No
13	Wireless	Wi-Fi 6E/7			Yes/No
14	Warranty	≥ 3 years onsite			Yes/No
15	Installation	Included			Yes/No
16	Testing	Included			Yes/No

15. Delivery and Installation

The quoted price shall be inclusive of GST, transportation, delivery, installation, commissioning, testing, warranty, and all other applicable charges.

16. Equivalent or Higher Clause

Where a specific model/brand is mentioned for establishing the minimum performance level, equivalent or higher-performing products from other reputed manufacturers shall also be considered, subject to compliance with all mandatory technical specifications and submission of manufacturer datasheets.

17. GPU hierarchy

Minimum acceptable:
NVIDIA RTX 5070 Ti - 16 GB
Higher acceptable:

RTX 5080 - 16 GB
RTX 5090 - 32 GB
RTX PRO series with ≥ 16 GB VRAM

Other NVIDIA CUDA GPUs demonstrably meeting or exceeding the minimum GPU performance and VRAM requirements.

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Sd/-

PI, MRI Project

Dept. of BT & BI, SU