"भारतीय प्रौद्योगिकी संस्थान (का.हि.वि.वि.), वाराणसी में जीपीयू-केंद्रित उच्च-प्रदर्शन कंप्यूटिंग (एचपीसी) क्लस्टर

की खरीद

हेतु

अभिरुचि की अभिव्यक्ति "

के लिए

(सीपीपीपी के ई-प्रोक्योरमेंट पोर्टल के माध्यम से

ऑनलाइन बोली आमंत्रित है)

निविदा संख्या: IIT(BHU)/CCIS/2025-26/122, दिनांक: 16.02.2026

जमा करने की अंतिम तिथि: 09.03.2026, (04:00 PM)

निविदा खुलने की तिथि: 10.03.2026, (04:00 PM)

कंप्यूटिंग एवं सूचना सेवा केंद्र

भारतीय प्रौद्योगिकी संस्थान

(काशी हिंदू विश्वविद्यालय)

वाराणसी – 221005, उत्तर प्रदेश, भारत

ई-मेल: office.cis@iitbhu.ac.in

head.cis@iitbhu.ac.in

Online Bids

(Through E-Procurement Portal of CPPP)

are invited

for

EXPRESSION OF INTEREST (EoI)
For GPU-centric High-Performance Computing (HPC) cluster

Tender No.: IIT(BHU)/CCIS/2025-26/ 122**,** Dated: 16.02.2026

Last Date of Submission: 09.03.2026, (04:00 PM)

Tender Opening Date: 10.03.2026, (04:00 PM)

Centre for Computing & Information Services (CCIS)
Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005

E-mail: office.cis@iitbhu.ac.in
head.cis@iitbhu.ac.in

विभाग/केंद्र: कंप्यूटिंग एवं सूचना सेवा केंद्र, भारतीय प्रौद्योगिकी संस्थान (बीएचयू) वाराणसी, वाराणसी- 221005, उत्तर प्रदेश, भारत

विज्ञापित निविदा जांच दस्तावेज
(निविदा आमंत्रण सूचना)

आईआईटी (बीएचयू) वाराणसी निम्नलिखित वस्तुओं के लिए परिसीमित निर्माताओं (या उनके 'अधिकृत' डीलरों जिन्हें इस निविदा आमंत्रण सूचना के प्रत्युत्तर में कोटेशन देने के लिए अधिकृत किया गया है) से ऑनलाइन निविदाएं आमंत्रित करता है।

क्रम संख्या	निविदा संख्या एवं अंतिम तिथि	वस्तु का विशिष्टता एवं मात्रा	जमा की जाने वाली अग्रिम धनराशि
1	**निविदा संख्या:** IIT(BHU)/CCIS/2025-26/122, दिनांक: 16.02.2026 **जमा करने की अंतिम तिथि:** 09.03.2026, (04:00 PM)	**जीपीयू-केंद्रित उच्च-प्रदर्शन कंप्यूटिंग (एचपीसी) क्लस्टर** **मात्रा: 01** **अनुलग्नक-I के अनुसार विशिष्टताएँ**	शून्य

निविदा दस्तावेज़ केंद्रीय सार्वजनिक खरीद पोर्टल (Central Public Procurement Portal) http://eprocure.gov.in/eprocure/app **से डाउनलोड किए जा सकते हैं।**

निविदाकर्ता सीपीपी पोर्टल (CPP Portal) पर निविदा दस्तावेज़ों को एक्सेस कर सकते हैं। उपयुक्त निविदा का चयन करें, सभी आवश्यक जानकारी भरें और पूर्ण रूप से भरे हुए निविदा दस्तावेज़ को निर्धारित कार्यक्रमानुसार उक्त वेबसाइट http://eprocure.gov.in/eprocure/app **पर ऑनलाइन जमा करें।**

वे इच्छुक निविदाकर्ता जो ई-प्रोक्योरमेंट पोर्टल पर अभी तक पंजीकृत / नामांकित नहीं हैं, उन्हें वेबसाइट http://eprocure.gov.in/eprocure/app **के माध्यम से भाग लेने से पूर्व पंजीकरण / नामांकन कर लेना चाहिए। पोर्टल पर नामांकन निःशुल्क है।**

निविदाकर्ताओं को सलाह दी जाती है कि वे "ऑनलाइन निविदा जमा करने के लिए दिशा-निर्देश" अनुभाग में दिए गए निर्देशों को ध्यानपूर्वक पढ़ें। कोई भी मैनुअल (हस्तलिखित या ऑफ़लाइन) निविदा स्वीकार नहीं की जाएगी। सभी कोटेशन (तकनीकी एवं वित्तीय दोनों) ई-प्रोक्योरमेंट पोर्टल के माध्यम से ही जमा की जानी चाहिए।

निविदा विभागाध्यक्ष, डॉ. हरि प्रभात गुप्ता, कंप्यूटिंग एवं सूचना सेवा केंद्र, भारतीय प्रौद्योगिकी संस्थान (बीएचयू), वाराणसी - 221005, उत्तर प्रदेश, भारत के नाम संबोधित होनी चाहिए और इसे महत्वपूर्ण तिथियों की तालिका (Critical Date Sheet) में उल्लिखित अंतिम तिथि से पहले या अंतिम तिथि तक ऑनलाइन जमा किया जाना चाहिए।

संस्थान ऑनलाइन निविदाएं जमा करने में होने वाली किसी भी देरी के लिए उत्तरदायी नहीं होगा। संस्थान को किसी भी निविदा को स्वीकार या अस्वीकार करने तथा बिना कोई कारण बताए निविदा को रद्द करने का पूर्ण अधिकार प्राप्त है। इस संबंध में किसी भी प्रकार का पत्राचार स्वीकार नहीं किया जाएगा।

विभागाध्यक्ष,
कंप्यूटिंग एवं सूचना सेवा केंद्र,
भा.प्रौ.सं. (का.हि.वि. वि.), वाराणसी
वाराणसी - 221005, उत्तर प्रदेश, भारत

INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI
Varanasi - 221005, Uttar Pradesh, India

DEPARTMENT/ CENTRE: Centre for Computing and Information Services, Indian Institute of Technology (BHU) Varanasi, Varanasi - 221005, Uttar Pradesh, India

Advertised Tender Enquiry Documents

(NOTICE INVITING TENDER)

IIT (BHU) Varanasi invites online tender from Limited manufacturers (or their 'authorized' dealers that they have been authorized to quote in response to this) of the following items are invited:

S. No.	Tender No. and Last Date	Specifications & Quantity of the item	Earnest Money Deposit to be submitted
1	**Tender No.:** IIT(BHU)/CCIS/2025-26/122, Dated: 16.02.2026 **Last Date of Submission:** 09.03.2026, (04:00 PM)	**EXPRESSION OF INTEREST (EoI) For GPU-centric High-Performance Computing (HPC) cluster** Specifications as per Annexure-I	Nil

Tender Documents may be downloaded from Central Public Procurement Portal http://eprocure.gov.in/eprocure/app. Tenderers can access tender documents on the CPP Portal. Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website http://eprocure.gov.in/eprocure/app as per the schedule given in the next page.

Aspiring Bidders who have not enrolled/ registered in e-procurement should enroll/ register before participating through the website http://eprocure.gov.in/eprocure/app. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

No manual bids will be accepted. All quotation (both Technical and Financial should be submitted in the e-procurement portal).

The tender should be addressed to **Head, Centre for Computing and Information Services, Indian Institute of Technology (BHU) Varanasi, Varanasi - 221005, Uttar Pradesh**, **India** and should be submitted online one or before the last Date of Submission as mentioned in critical date sheet.

The Institute shall not be responsible for any delay in submitting online Bids. The Institute reserves the right to accept or reject any bid, cancel the Tender without assigning any reason thereof. No correspondence in this regard will be entertained.

Head,
Centre for Computing and Information Services (CCIS)
IIT (BHU), Varanasi
Varanasi-221005, Uttar Pradesh, India

भारतीय प्रौद्योगिकी संस्थान (काशी हिंदू विश्वविद्यालय), वाराणसी - 221005

विभाग/केंद्र: कंप्यूटिंग एवं सूचना सेवा केंद्र विभाग, भारतीय प्रौद्योगिकी संस्थान (बीएचयू) वाराणसी, वाराणसी- 221005, उत्तर प्रदेश, भारत

भारतीय प्रौद्योगिकी संस्थान (का.हि.वि.) वाराणसी के कंप्यूटिंग एवं सूचना सेवा केंद्र विभाग में जीपीयू-केंद्रित उच्च-प्रदर्शन कंप्यूटिंग (एचपीसी) क्लस्टर के लिए निविदा दस्तावेज

महत्वपूर्ण डाटा शीट

संगठन का नाम	**भारतीय प्रौद्योगिकी संस्थान, (बीएचयू), वाराणसी**
टेंडर	खुली निविदा
निविदा प्रकार / अनुबंध का प्रकार (कार्य / आपूर्ति / नीलामी / सेवा / क्रय / पैनल गठन / विक्रय)	**अभिरुचि की अभिव्यक्ति**
मूल निविदा जारी / प्रकाशित करने की तिथि	**16.02.2026 (06:00 PM)**
दस्तावेज़ डाउनलोड प्रारंभ तिथि	**16.02.2026 (06:00 PM)**
पूर्व-बोली बैठक की तिथि (*यदि कोई प्रश्न हों तो उन्हें विचारार्थ पूर्व-बोली बैठक की तिथि से पहले* **head.cis@iitbhu.ac.in & office.cis@itbhu.ac.in** *पर ईमेल द्वारा भेजना अनिवार्य है।*)	लागू नहीं
संशोधन (यदि कोई हो)	---
निविदा अपलोड करने की अंतिम तिथि और समय	**09.03.2026 (04:00 PM)**
तकनीकी निविदा खोलने की तिथि और समय	**10.03.2026 (04:00 PM)**
निविदा प्रसंस्करण शुल्क (जीएसटी सहित, यदि लागू हो)	रु. शून्य (**निविदा प्रसंस्करण शुल्क और ईएमडी**, निम्नलिखित विवरण के अनुसार आरटीजीएस/एनईएफटी के माध्यम से भुगतान किया जाना है:) खाते का नाम: रजिस्ट्रार, आईआईटी (बीएचयू) बैंक का नाम: भारतीय स्टेट बैंक शाखा का नाम: आईटी, बी.एच.यू., वाराणसी खाता संख्या: 32778803937 आईएफएससी: SBIN0011445 **भुगतान का प्रमाण तकनीकी बोली के साथ संलग्न होना चाहिए।**
जमानत राशि (ईएमडी)	रु. शून्य
कवर की संख्या (1/2/3/4)	**01**
बोली की वैधता अवधि (दिनों में)	**180 दिन** (निविदा खुलने की अंतिम तिथि से)
पत्राचार हेतु पता	**विभागाध्यक्ष,** **कंप्यूटिंग एवं सूचना सेवा केंद्र,** **भा.प्रौ.सं. (का.हि.वि.), वाराणसी** **वाराणसी - 221005, उत्तर प्रदेश, भारत**
ई-मेल पता	head.cis@iitbhu.ac.in , office.cis@iitbhu.ac.in

INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI
Varanasi - 221005, Uttar Pradesh, India

DEPARTMENT/ CENTRE: Centre for Computing & Information Services (CCIS), Indian Institute of Technology (BHU), Varanasi-221005, Uttar Pradesh, India

TENDER DOCUMENT FOR

EXPRESSION OF INTEREST (EoI) for GPU-centric High-Performance Computing (HPC) cluster

CRITICAL DATA SHEET

Name of Organization	**Indian Institute of Technology (BHU) Varanasi**
Tender	**Open Tender**
Type/ Form of Contract (Work/ Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	**EXPRESSION OF INTEREST (EoI)**
Date of Issue/Publishing Original Tender	**16.02.2026 (06:00 PM)**
Document Download Start Date	**16.02.2026 (06:00 PM)**
Pre-Bid Meeting Date* (*Queries, if any, to be discussed, must be emailed to head.ece@iitbhu.ac.in, before the date of Pre-Bid meeting for consideration.)	**NA**
Corrigendum, if any	**---**
Last Date and Time for Uploading of Bids	**09.03.2026 (04:00 PM)**
Date and Time of Opening of Technical Bids	**10.03.2026 (04:00 PM)**
Tender Processing Fee (including GST as applicable)	**NIL** **(For Tender Processing Fee)** (**Tender Processing Fee and EMD,** to be paid through RTGS/NEFT, as per the following details:) Name of Account: Registrar, IIT(BHU) Name of the Bank: State Bank of India Name of Branch: IT, BHU, Varanasi Account No.: 32778803937 IFSC: SBIN0011445 **The proof of payment must be enclosed with Technical Bid.**
EMD (Earnest Money Deposit)	**NIL**
No. of Covers (1/2/3/4)	**01**
Bid Validity Days	**180 Days** (From last date of opening of the tender)
Address for Communication	**Head, CCIS** **IIT(BHU), Varanasi** **Varanasi - 221005, Uttar Pradesh, India**
E-mail Address	head.cis@iitbhu.ac.in , office.cis@iitbhu.ac.in

EXPRESSION OF INTEREST (EoI)

For GPU-centric High-Performance Computing (HPC) cluster

At the CCIS, IIT (BHU), Varanasi– 221005, India

1. Notice Inviting Expression of Interest (NIEOI)

CCIS, Indian Institute of Technology (BHU) Varanasi, hereinafter referred to as the Purchaser, invites Expression of Interest (EOI) from eligible Original Equipment Manufacturers (OEMs), Authorized System Integrators, or Consortium Partners for the proposed procurement of a Turnkey High-Performance Computing (HPC) Cluster.

Estimated Project Value: ₹6-8 Crore (indicative, inclusive of all taxes, delivery, installation, warranty, and support). This estimate is for market assessment purposes only and shall not be binding.

This EOI is issued for the purpose of:

- Technology assessment and market capability identification
- Technical validation of proposed architecture and budget feasibility
- Obtaining vendor feedback on component availability, lead times, and deployment considerations
- Finalizing technical specifications prior to issuance of the detailed tender (RFP)

This EOI shall not be construed as a tender and does not constitute any commitment for procurement.

2. Background and Institutional Context

[Indian Institute of Technology (BHU) Varanasi] intends to deploy a High-Performance Computing infrastructure to support computational research across multiple departments, including but not limited to:

- Double-precision CPU-intensive scientific simulations (CFD, FEM, molecular dynamics)
- GPU-accelerated AI/ML training and inference workloads
- Data-intensive parallel computing and large-scale numerical analysis

The system shall be designed as a heterogeneous compute platform combining CPU and GPU resources with parallel storage, enterprise backup, and high-speed InfiniBand interconnect.

3. Objective of the EOI

The primary objectives of this EOI are:

- To assess availability and lead times of key HPC components (H200-class GPUs, NDR InfiniBand, enterprise Lustre, liquid cooling systems) in the Indian market.
- To identify experienced vendors capable of delivering turnkey HPC solutions of this scale to academic and research institutions.
- To validate the proposed system architecture, budget assumptions, and engineering design.
- To obtain industry feedback on power, cooling, and site preparation requirements, particularly for direct-to-chip liquid cooling.
- To finalize technical specifications for the upcoming tender.

4. Broad Scope of Proposed Procurement

The proposed tender (indicative scope) shall include:

- Design and engineering of HPC cluster architecture
- Supply of compute, storage, networking, and infrastructure components
- Supply and installation of direct-to-chip liquid cooling infrastructure (CDUs, manifolds, plumbing, leak detection)
- Installation, integration, and configuration
- Lustre parallel filesystem and enterprise SAN deployment
- Cluster software stack installation and optimization (SLURM, MPI, CUDA, AI frameworks)
- Security hardening and access control
- Benchmarking and acceptance testing (including 72-hour stress test)

- Documentation and training
- 3-year comprehensive warranty with onsite support

The solution shall be delivered as a fully operational turnkey system.

5. High-Level Technical Overview

The proposed HPC system architecture is summarized below. This overview is provided to enable respondents to offer meaningful technical and commercial feedback. A detailed indicative technical specification is provided in Annexure-I.

5.1 Compute

- 4× CPU compute nodes: dual-socket, ≥128 cores per node, P-core class x86_64 processors with full-width AVX-512 execution, 512 GB DDR5 RAM per node
- 3× GPU compute nodes: 2× NVIDIA H200 NVL GPUs (or equivalent with ≥140 GB HBM3e, 4.8 TB/s bandwidth) per node, NV Link interconnect, 1 TB RAM per node, direct-to-chip liquid cooling
- 1× Login/Visualization node with professional-grade GPU
- 1× Head/Management node

5.2 Storage

- Lustre parallel filesystem: all-NVMe, ≥25 GB/s aggregate throughput, enterprise-supported distribution
- Enterprise SAN: ≥500 TB usable, dual active-active controllers, SSD + NL-SAS tiering, 16 Gb Fibre Channel

5.3 Networking

- NDR-class (≥400 Gb/s) InfiniBand fabric for all compute and storage traffic, with SHARP support
- Segregated Ethernet management network (IPMI/BMC)
- Fabric sized for 2× expansion without spine switch replacement

5.4 Infrastructure

- 42U/45U racks with hot/cold aisle containment
- 60 kVA UPS (N+1), in-row precision cooling (50 kW sensible at 35°C)
- Complete liquid cooling infrastructure: CDUs, redundant pumps, manifolds, leak detection

5.5 Software

- Enterprise Linux (RHEL/Rocky/SLES), SLURM workload manager
- CUDA, NCCL, MPI (OpenMPI/Intel MPI/HPC-X), Apptainer
- NVIDIA AI Enterprise (3-year subscription), enterprise Lustre support

6. Eligibility Criteria

Interested parties should meet the following indicative criteria. Detailed eligibility requirements shall be specified in the final RFP.

- Must be an OEM or authorized system integrator with valid OEM authorization for compute, GPU, storage, and networking components proposed.
- Must have successfully completed at least 2 HPC or GPU cluster deployments of ≥₹3 Crore each in Indian academic, research, or government institutions in the last 5 years. Supporting documentation (purchase orders, completion certificates, or client references) shall be submitted.
- Must have an established service and support presence in India with capability for onsite warranty support.
- Must have the financial and technical capacity to execute projects of this scale within the proposed timeline.
- Availability of OEM-backed warranty and technical support for the full proposed solution.

7. Information Required from Respondents

7.1 Organizational Information

- Company profile, legal status, and ownership structure
- Office and support presence in India
- OEM partnerships and authorization status

7.2 Technical Experience

- Details of similar HPC or large-scale GPU cluster deployments (client name, configuration, value, year)
- Client references (without commercial pricing details)

7.3 Technical Inputs and Architecture Feedback

Respondents are requested to provide a high-level architecture proposal and compliance overview against Annexure-I, along with specific inputs on the following:

(a) Is the proposed configuration (3× GPU nodes with 2× H200 NVL each, 4× CPU compute nodes, Lustre + 500 TB SAN, NDR InfiniBand, liquid cooling) feasible within ₹8–10 Crore inclusive of 3-year warranty, installation, and all applicable taxes?

(b) What is the current lead time for NVIDIA H200 NVL GPUs and NDR InfiniBand switches for delivery in India?

(c) What liquid cooling approach (liquid-to-liquid CDU requiring facility chilled water, or self-contained liquid-to-air with dry coolers) is recommended for an existing server room without a chilled water loop?

(d) For CPU compute nodes requiring strong FP64/AVX-512 performance, which processor platform (Intel Granite Rapids / Xeon 6900P, AMD EPYC Turin/Genoa) offers the best performance-per-rupee at this scale? Are there availability or lead-time differences?

(e) What enterprise Lustre distribution is recommended and what is the typical licensing model (per-node, per-TB, subscription)?

(f) Can the proposed configuration fit within 2 standard server racks (42U/45U)? What is the estimated per-rack power draw under full load?

(g) Are there any component availability, end-of-life, compatibility, or import restriction risks in the proposed specification that the Purchaser should be aware of?

7.4 Additional Inputs

- Any risks or constraints observed in the proposed specification
- Recommendations for optimization, cost reduction, or improved performance within the stated budget
- Suggested alternatives where the respondent believes a different approach would better serve the stated objectives

Commercial pricing shall NOT be submitted at EOI stage.

8. EOI Evaluation Methodology

EOI responses shall be evaluated qualitatively based on:

- Technical capability and demonstrated experience in HPC deployments
- Quality and specificity of technical inputs and feedback on the proposed architecture
- OEM partnerships and support capability in India
- Demonstrated understanding of the engineering challenges (liquid cooling, InfiniBand fabric design, Lustre deployment)

The Purchaser reserves the right to invite selected respondents for technical discussions or presentations. Evaluation of EOI shall not constitute pre-qualification for the subsequent tender.

9. General Terms and Conditions

- This EOI is for information gathering and market assessment only. It is not a tender and does not constitute any commitment for procurement.
- Participation in EOI does not guarantee qualification or preference in the subsequent tender process.
- The Purchaser reserves the right to modify specifications, alter the scope, or cancel the process at any stage without assigning any reason.
- No financial obligation shall arise from this EOI for either party.
- All costs incurred in preparation and submission of EOI responses shall be borne by the respondent.
- Information submitted in response to this EOI may be used by the Purchaser to refine technical specifications for the upcoming tender. Respondents shall not claim any intellectual property rights over suggestions or feedback provided in their EOI response.

- The Purchaser may engage in technical discussions with one or more respondents. Such engagement shall not be construed as preferential treatment, pre-qualification, or any obligation to procure.

10. Submission Instructions

- EOI responses shall be submitted electronically through the CPPP portal only.
- Documents shall be submitted in PDF format and digitally signed where applicable.
- Responses should not exceed 30 pages (excluding organizational brochures and standard annexures).

Eligibility Criteria

Vendors responding to this EoI must meet the following minimum eligibility requirements:

- The firm must have successfully executed at least one such project of comparable complexity within the last five years at an Institute of National Importance (such as IITs, IISc, NITs) or at R&D laboratories under DRDO/ISRO/CSIR/CMET. The bidder shall demonstrate end-to-end capability. The presentation shall cover project scope, system design approach, makes and models of major equipment and materials, along with supporting documentary evidence.
- Financial Strength: The bidder should be a legally registered entity in India. Minimum average annual turnover more than 3 Cr (INR) during the last three financial years. The firm should not be blacklisted by any Government/PSU/Autonomous institution.
- Statutory & Quality Compliance: Valid GST registration, PAN, and statutory compliances.

Submission and participation in EoI

1 Venders are requested to express their interest within 21 days from the opening of this EoI.

2 Interested vendors are requested to submit the following information:

- Company profile and organizational details
- Technical capability and infrastructure
- Audited financial statements / turnover summary
- Relevant certifications and statutory documents

3 Vendors showing interest will be called for a discussion in hybrid mode, however an on-site visit and in-person interaction will be preferred.

4 Submission of EoI does not guarantee participation in the final tender. IIT BHU reserves the right to shortlist vendors based on EoI responses and to accept or reject any or all submissions without assigning reasons. This EoI is issued solely for market assessment and venders' capabilities. Detailed technical specifications, scope, and commercial terms shall be provided in the subsequent tender which will be floated on the CPPP portal for open tendering process.

Head,
Centre for Computing & Information Services
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Varanasi-221005

— End of EOI Document —