

Domestic Tender Notification for the Procurement of a High-Performance Computing (HPC) GPU Cluster in the Department of Chemical Engineering

This is an open domestic tender for the purchase of a GPU computing cluster with using multiple cores distributed over several compute nodes, apart from a master node, thereby allowing for multi-scale simulations. This HPC cluster is required for the research groups of Profs. Ananth Govind Rajan and Sudeep Punnathanam in the Department of Chemical Engineering at the Indian Institute of Science (IISc).

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Section 1- Bid Schedule

1	Tender No	CE/SP-AGR/2025/09/12
2	Tender Date	12 September 2025
3	Item Description	Procurement of GPU Cluster
4	Tender Type	Two bid system (i) Technical Bid (Part A) (ii) Commercial Bid (Part B)
5	Place of tender submission	Department of Chemical Engineering Indian Institute of Science, Bangalore 560012
6	Last Date & Time for submission of tender	Monday, 6 th October 2025, by 5:00 pm
7	For further clarification	Profs. Sudeep Punathanam and Ananth Govind Rajan Department of Chemical Engineering Indian Institute of Science Bangalore – 560012, India. Email: sudeep@iisc.ac.in and ananthgr@iisc.ac.in

Section 2 – Eligibility Criteria

1. The Bidder's firm should have existed for a minimum of 5 years. (Enclose Company Registration Certificate)
 2. Vendors must supply proof of:
 - (i) one completed cluster installation in India with a minimum of 4 nodes either in the last two financial years or in the current financial year,
 - OR**
 - (ii) three active annual maintenance contracts (AMCs) of HPC systems with a minimum of 4 nodes.
 3. The Bidder should belong to either a local manufacturer or a class 1/class 2 supplier distinguished by their "local content" as defined by recent edits to GFR. They should mention clearly which class they belong to in the cover letter.
 - a) Class 1 supplier: Goods and services should have local content of equal to or more than 50%.
 - b) Class 2 supplier: Goods and services should have local content of equal to or more than 20% and less than 50%.
 4. Purchase preference as defined by the recent edits to GFR (within the "margin of purchase preference") will be given to Class-1 supplier.
 5. Quote should come only from Indian Original Equipment Manufacturer (OEM) or their Indian authorized distributor.
 6. Bidders offering imported products will fall under the category of non-local suppliers. They cannot claim themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the services such as transportation, insurance, installation, commissioning, training, and other sales service support like AMC/CMC, etc., as local value addition.
 7. The quotations should be on FOR-IISc Bangalore basis in INR only.
 8. MSME can seek exemption to some qualification criteria. IISc follows GFR2017 for such details
 9. The bidder should sign and submit the declaration for Acceptance of Terms and Conditions as per -Annexure 4.
 10. The Bidder must not be blacklisted/banned/suspended or have a record of any service-related dispute with any organization in India or elsewhere. A declaration to this effect must be given as per Annexure 3.
 11. The vendors quoting should be registered with IISc. The quote should carry the vendor registration number in the technical bid.
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Section 3 – Terms and Conditions

A) Submission of Tender:

1. All documentations in the tender should be in English.
2. Tender should be submitted in two envelopes (two bid system).
 - a. Technical Bid (Part-A) – Technical bid consisting of all technical details and check list for to technical specifications. **Vendors who include price information in the technical bids will be automatically disqualified.**

The technical proposal should contain a technical compliance table with 5 columns.

- i. The first column must list the technical requirements, in the order that they are given in the technical requirement below.
 - ii. The second column should provide specifications of the instrument against the requirement. Please provide quantitative responses wherever possible.
 - iii. The third column should describe your compliance with a “YES” or “NO” only. Ensure that the entries in column 2 and column 3 are consistent.
 - iv. The fourth column should state the reasons/explanations/context for deviations, if any.
 - v. The fifth column can contain additional remarks from the Indian Original Equipment Manufacturer (OEM) or from their distributors. You can use this opportunity to highlight technical features, qualify response of previous columns, or provide additional details, compare your solution with that of your competitors or provide details as requested in the technical requirements table below.
 - b. Commercial Bid (Part-B) – Indicating item wise price for the items mentioned in the technical bid, as per the format of quotation provided in tender, and other commercial terms and conditions. Additional nodes may be procured from the winning bidder at the same cost per node mentioned in the original financial bid.
The price shall be quoted in INR only. The cost should be inclusive of delivery till the IISc campus. Price offer must be on FOR-IISc Bangalore basis.
3. The technical bid and price bid should each be placed in separate sealed covers, superscripting on both the envelopes the tender no. and the due date. Both these sealed covers are to be placed in a bigger cover which should also be sealed and duly superscripted with the Tender No, Tender Description & Due Date.
 4. The SEALED COVER superscripting tender number / due date & should reach the Department of Chemical Engineering, Indian Institute of Science, Bangalore 560012, India, on or before due date mentioned in the tender notice. In case due date happens to be holiday the tender will be accepted on the next working day. If the quotation cover is not sealed, it will be rejected.
 5. All queries are to be addressed to the person identified in “Section 1 – Bid Schedule” of the tender notice.
 6. GST/other taxes, levies etc., are to be indicated separately. The BIDDER should mention GST Registration and PAN in the tender document (Indian Bidders only).
 7. If price is not quoted in Commercial Bid as per the format provided in tender document the bid

is liable to be rejected.

8. The Institute reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to the award of contract, without there by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders.
9. Incomplete bids will be summarily rejected.

B) Cancellation of Tender:

Notwithstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender, offer not confirming to the tender terms.

C) Validity of the offer:

The offer shall be valid 90 Days from the date of opening of the commercial bid.

D) Evaluation of the offer:

1. The technical bid (Part A) will be opened first and evaluated.
2. Bidders meeting the required eligibility criteria as stated in Section 2 of this document shall only be considered for Commercial Bid (Part B) opening. Further, agencies not furnishing the documentary evidence as required will not be considered.
3. Pre-qualification of the bidders shall not imply final acceptance of the Commercial Bid. The agency may be rejected at any point during technical evaluation or during commercial evaluation. The decision in regard to acceptance and / or rejection of any offer in part or full shall be the sole discretion of IISc Bangalore, and decision in this regard shall be binding on the bidders.
4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender.
5. Any offer which deviates from the vital conditions (as illustrated below) of the tender is liable to be rejected:
 - a. Non-submission of complete offers.
 - b. Receipt of bids after due date and time and or by email / fax (unless specified otherwise).
 - c. Receipt of bids in open conditions.
6. In case any BIDDER is silent on any clauses mentioned in these tender documents, IISc Bangalore shall construe that the BIDDER had accepted the clauses as of the tender and no further claim will be entertained.

7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
8. Lowest bid will be calculated based on the total price of all items mentioned in the tender.

E) Pre-requisites:

The bidder will provide the prerequisite installation requirement of the equipment along with the technical bid.

F) Warranty:

The complete system is to be under warranty period of minimum 3 years including free supply of consumables and spare parts, from the date of functional installation. Vendor should include cost of any spares that are expected to be needed during the warranty period, including electronics, subcomponents, and software. If the instrument is found to be defective, it must be replaced or rectified at the cost of the bidder within 30 days from the date of receipt of written communications from IISc, Bangalore. If there is any delay in replacement or rectification, the warranty period should be correspondingly extended.

G) Purchase Order:

1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender document.
2. The quantity of the items in tender is only indicative. IISc, Bangalore reserves the right to increase /decrease the quantity of the items depending on the requirement.
3. If the quality of the product and service provided is not found satisfactory, IISc, Bangalore reserves the right to cancel or amend the contract.

H) Delivery, Installation and Training:

The bidder shall provide the lead time to delivery, installation and made functional at IISc, Bangalore from the date of receipt of purchase order. The system should be delivered, installed, and made functional, including all software installation, within 8 weeks from the date of receipt of purchase order. The supply of the items will be considered as effected only on satisfactory installation and inspection of the system and inspection of all the items and features/capabilities tested by the IISc, Bangalore. After successful installation and inspection, the date of taking over of entire system by the IISc, Bangalore shall be taken as the start of the warranty period. No partial shipment is allowed. The bidder should also arrange for technical training to the local facility technologists and users.

I) Payment Terms:

100% payment will be released after completion of delivery and satisfactory installation subject to TDS as per rules. Price basis must be on FOR-IISc Bangalore basis only. As per GFR no advance payment can be made to domestic vendors, unless an equal amount of bank

guarantee is provided.

J) Statutory Variation:

Any statutory increase in the taxes and duties subsequent to bidder's offer, if it takes place within the original contractual delivery date, will be borne by IISc, Bangalore subject to the claim being supported by documentary evidence. However, if any decrease takes place the advantage will have to be passed on to IISc, Bangalore.

K) Dispute and Jurisdiction:

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore, India.

L) General:

1. All amendments, time extension, clarifications etc., within the period of submission of the tender will be communicated electronically. No extension in the bid due date/time shall be considered on account of delay in receipt of any document(s) by mail.
 2. The bidder may furnish any additional information, which is necessary to establish capabilities to successfully complete the envisaged work. It is however, advised not to furnish superfluous information.
 3. Any information furnished by the bidder found to be incorrect, either immediately or at a later date, would render the bidder liable to be debarred from tendering/taking up of work in IISc, Bangalore.
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Section 4 - Technical specifications

1 (One) × Master node

Item #	Item heading	Item specification
1	Form factor	1U rack-mountable chassis
2	Processor	1 × Intel Xeon Silver 4314 16-core 2.4 GHz or better OR 1 × AMD EPYC 7313(P) 16-core 3.0 GHz or better
3	Memory	<ul style="list-style-type: none"> • Minimum 64 GB DDR4 RAM • ECC registered DDR4 DRAM with a minimum frequency of 3200 MHz • Homogenous and fully balanced memory configuration of the memory modules
4	Video output per node	1 onboard VGA port or 1 onboard DVI port, or better
5	Storage	<ul style="list-style-type: none"> • SSD with minimum 950 GB storage in mirrored configuration for the OS • Minimum 24 TB of usable space in a RAID 5 configuration, with a minimum of 4 TB space per disk, using 6 Gbps Enterprise SATA HDDs @ 7200 RPM
6	Ethernet connectivity	All nodes (master and compute) should have dual ports supporting 10 GigE Base-T transfer speed
7	Storage controller	1 RAID controller with 8 internal SAS/SATA ports; support for RAID levels 0, 1, 5, 6, 10, 50, 60; with minimum 2 GB cache and a battery backup unit
8	Power supply	<ul style="list-style-type: none"> • Redundant power supply of 80 Plus Platinum level or better • The minimum power supply unit (PSU) wattages should be suitable for the provided solution • A supporting calculation of the power utilization must be provided
9	Operating system	<ul style="list-style-type: none"> • Open-source, stable, enterprise-grade Linux distribution • The system should have the latest version of the OS

3 (Three) × Compute nodes

Item #	Item heading	Item specifications
1	Form factor	4U rack-mountable chassis
2	Processor	2 × Intel Xeon Silver 4314 16-core 2.4 GHz or better OR 2 × AMD EPYC 7313 16-core 3.0 GHz or better
3	GPU	2 × NVIDIA GeForce RTX 5090 32 GB
4	Memory	<ul style="list-style-type: none"> • Minimum 128 GB DDR4 RAM • ECC registered DDR4 DRAM with a minimum frequency of 3200 MHz • Homogenous and fully balanced memory configuration of the memory modules
5	Video output per node	1 onboard VGA port or 1 onboard DVI port, or better

6	Storage	2 TB Enterprise SATA HDD @ 7200 RPM OR 1.9 TB Enterprise SSD (SATA or NVMe)
7	Ethernet connectivity	<ul style="list-style-type: none"> All nodes (master and compute) should have dual ports supporting 10 GigE Base-T transfer speed
8	Power supply	<ul style="list-style-type: none"> Redundant power supply of 80 Plus Platinum level or better The minimum power supply unit (PSU) wattages should be suitable for the provided solution A supporting calculation of the power utilization must be provided
9	Operating system	<ul style="list-style-type: none"> Open-source, stable, enterprise-grade Linux distribution The system should have the latest version of the OS

Primary/management interconnect

Already available (10 GigE BaseT-managed switch), does not have to be supplied

Software installation

#	Item heading	Item specifications
1	Operating system	Open-source, stable, enterprise-grade Linux distribution
2	Cluster management software	Rocks with Ganglia or equivalent
3	Job scheduling software	SLURM
4	Compilers	C/C++/Fortran and any others required by the simulation packages outlined in point 6
5	Software	CPU and GPU versions of BLAS, SCALAPACK, LAPACK, MPI, debugger, MPI tuning and analysis, Python, NumPy, SciPy, Scikit-learn, Pytorch, TensorFlow, and any others required by the simulation packages outlined in point 6
6	Simulation packages	<ul style="list-style-type: none"> Latest GPU-enabled versions of open-source packages: GROMACS, LAMMPS, cp2k, Quantum Espresso Latest GPU-enabled versions of commercial packages (licenses will be provided): VASP, MATLAB

Other requirements

1. Annual maintenance contract (AMC) and warranty on all components, and complete software support, all for a minimum of 3 years, should be included in the quoted cost.
2. Detailed instructions on installing additional nodes, replacing failed nodes, operating the system, and powering up/down the system should be provided during installation.

Section 5 – Technical Bid

The technical bid should furnish all requirements of the tender along with all annexures in this section and be submitted to

The Chair, Department of Chemical Engineering
Attn: Profs. Sudeep Punathanam and Ananth Govind Rajan
Indian Institute of Science,
Bangalore –560012, India

Annexure-1:

Details of the Bidder

The bidder must provide the following mandatory information & attach supporting documents wherever mentioned:

Details of the Bidder

Sl. No Items Details

1. Name of the Bidder
2. Nature of Bidder (Attach attested copy of Certificate of Incorporation/ Partnership Deed)
3. Registration No/ Trade License, (attach attested copy)
4. Registered Office Address
5. Address for communication
6. Contact person- Name and Designation
7. Telephone No
8. Email ID
9. Website
10. PAN No. (attach copy)
11. GST No. (attach copy)

Signature of the Bidder

Name
Designation, Seal

Date:

Annexure-2:

Declaration regarding experience

To,
The Chair,
Dept. of Chemical Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXXX
Dated: XXXXX

Supply and installation of a “GPU HPC Cluster” at Chemical Engineering, IISc Bangalore

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has ----- years of experience in supplying and installing -----

- (Signature of the Bidder)

Printed Name

Designation, Seal

Date:

Annexure-3:

Declaration regarding track record

To,
The Chair,
Dept. of Chemical Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No:
XXXXXXXXXX Dated:
XXXXXX

Supply and installation of a “GPU HPC Cluster” at Chemical Engineering, IISc Bangalore

Sir,

I've carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/ firm is not currently debarred / blacklisted by any Government / Semi Government organizations / institutions in India or abroad. I further certify that I'm competent officer in my company / firm to make this declaration.

Or

I declare the following:

Sl.No

Country in which the company is Debarred/blacklisted / case is Pending Blacklisted / debarred by Government / Semi Government/Organizations /Institutions

Reason Since when and for how long

(NOTE: In case the company / firm was blacklisted previously, please provide the details regarding period for which the company / firm was blacklisted and the reason/s for the same).

Yours faithfully (Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure – 4:

Declaration for acceptance of terms and conditions

To,
The Chair,
Dept. of Chemical Engineering,
Indian Institute of Science,
Bangalore – 560012, India

Ref: Tender No: XXXXXXXXXX
Dated: XXXXX

Supply and installation of a “GPU HPC Cluster” at Chemical Engineering, IISc Bangalore

Sir,

I've carefully gone through the Terms & Conditions as mentioned in the above referred tender document. I declare that all the provisions of this tender document are acceptable to my company. I further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder)

Name
Designation, Seal

Date:

Annexure – 5:

Details of items quoted:

- a. Company Name
- b. Product Name
- c. Part / Catalogue number
- d. Product description / main features
- e. Detailed technical specifications
- f. Remarks

Instructions to bidders:

1. Bidder should provide technical specifications of the quoted product/s in detail.
2. Bidder should attach product brochures along with technical bid.
3. Bidders should clearly indicate compliance or non-compliance of the technical specifications provided in the tender document.

Section 6 – Commercial Bid

The commercial bid should be furnished with all requirements of the tender with supporting documents as mentioned under:

- | S.No | Description | Cat. Number | Quantity | Unit Price | Sub total |
|------|---|-------------|----------|------------|-----------|
| 1. | Essential items noted in the technical specification | | | | |
| 1.a | ... (details of essential items) | | | | |
| 1.b | ... | | | | |
| 2. | Optional items noted in the technical specification | | | | |
| 2.a | ... (details of essential items) | | | | |
| 2.b | ... | | | | |
| 3. | Accessories for operation and installation | | | | |
| 4. | All Consumables, spares and software to be supplied locally | | | | |
| 5. | Warranty (3 years) | | | | |

Any additional items

S.No	Description	Cat. Number	Quantity	Unit Price	Sub total
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Addressed to

The Chair, Department of Chemical Engineering
Attn: Profs. Sudeep Punnathanam and Ananth Govind Rajan
Dept of Chemical Engineering
Indian Institute of Science
Bangalore – 560012, India

Section 7 – Checklist

(This should be enclosed with technical bid- Part A)

The following items must be checked before the Bid is submitted:

A. Sealed Envelope “A”: Technical Bid

1. Section 5- Technical Bid (each page signed by the authorized signatory and sealed) with the below annexures:
 - a. Annexure 1: Bidders details
 - b. Annexure 2: Declaration regarding experience
 - c. Annexure 3: Declaration regarding clean track record
 - d. Annexure 4: Declaration for acceptance of terms and conditions
 - e. Annexure 5: Details of items quoted
2. Copy of this tender document duly signed by the authorized signatory on every page and sealed.

B. Sealed Envelop “B”: Commercial Bid Section 6: Commercial Bid

Your quotation must be submitted in two envelopes: Technical Bid (Envelope A) and Commercial Bid (Envelope B) super scribing on both the envelopes with Tender No. and due date and both of these in sealed covers and put in a bigger cover which should also be sealed and duly super scribed with Tender No., Tender description & Due Date.