

## Institute of Nano

Knowledge City, Sector 81,  
Ph: +91-172-2297000; E-mail

### NOTICE INVITING

INST invites tender from the dealers so as to reach this office on or before scheduled date and time for the instrument, as per specifications given in the Annexure attached to the Tender form. All offers should be made in English and should be written in both figures and words. Tender forms can be downloaded from the website (www.inst.ac.in) of the Institute.



## Science and Technology

Mohali -140306, Punjab, India

ID: [purchase@inst.ac.in](mailto:purchase@inst.ac.in)

### TENDER

The bidders are requested to read the tender document carefully and ensure compliance with all specifications/instructions herein. Non-compliance with specifications/instructions in this document may disqualify the bidders from the tender exercise. The Director, INST reserves the right to select the item (in single or multiple units) or to reject any quotation wholly or partly without assigning any reason. Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.

### EQUIPMENT DETAILS

S. No.	Ref. No.	Item Description	Qty	Tender Fee (Non refundable)	EMD
1	INST/12(216)/2020-Pur	High Performance Computing (HPC) Cluster	01 No.	Rs. 590/-	Bid Security Declaration as per GFR Rule 170

### IMPORTANT NOTE, DATES & TIME

Date and Time of Pre-bid Meeting	1 <sup>st</sup> March, 2021 (1100 HRS)
Last Date & Time For Submission	12 <sup>th</sup> March, 2021 (1400 HRS)
Date / Time of Opening of Bids	12 <sup>th</sup> March, 2021 (1500 HRS)
Venue of Bid Opening at INST	INST, Knowledge City, Sector 81, Mohali
Tenders to be submitted at	INST, Knowledge City, Sector 81, Mohali

Interested bidders may purchase the tender document directly from the office of INST by paying Rs.590/- or download the tender documents directly from the website and deposit Rs. 590/- (Five Hundred Ninety only) in favour of Director, INST towards tender fees in INST account mentioned at s.no. 8 of the terms of tender. Both the bids i.e. the Technical & Price bids must be submitted on or before 12<sup>th</sup> March, 2021 upto 2.00PM

### Pre-Bid Meeting (PBM)

- The objective of PBM is to provide a platform for clarifying issues and clearing doubts, if any, about the specifications and other allied technical/commercial details of the bid document. Bidders are requested to submit their bids only after the PBM so as to take care of the changes made in the bidding document, if any.
- The prospective participants should inform their intention to participate and send written queries at the email: [purchase@inst.ac.in](mailto:purchase@inst.ac.in) positively up to 26<sup>th</sup> February, 2021 to enable us to keep the response ready. Queries after 26<sup>th</sup> February, 2021 upto 4.00PM will not be entertained.
- Change in the technical specifications and terms & conditions if any, for the above item after pre-bid deliberations, will be uploaded on the INST website & CPPP Website. All vendors are requested to quote accordingly.



## IMPORTANT NOTE:

- PLEASE STRICTLY ADHERE TENDER DOCUMENT

TO THE DATES / TIMES MENTIONED IN

- The **bids** (Technical Bids) will be **opened** in the presence of representatives of tenderers, if any. **If any unscheduled holiday occurs on the date of submission/opening, then next working day shall be the prescribed date of submission/opening. Requests for postponement will not be entertained.** Fax/email bids may not be accepted. The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids or due to any reason. Late/Delayed tenders shall not be considered/entertained.

The Director, INST reserves the right to accept/reject any offer in part or full without assigning any reason.

## TERMS AND CONDITIONS

Important Conditions of the tender to be abide by the tenderer

1. **Due date:** The tender has to be submitted before the due date. The offers received after the due date and time will not be considered.
2. **Preparation Bids:** The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid. The Technical bid and the financial bid should be put in separate covers and sealed. Both the sealed covers should be put into a bigger cover along with letter of EMD and to be sealed. The tender number and details should be superscripted on the left side of the outer cover. The Quotations should be valid for 180 days from the date of opening of tender. The Quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to **“The Director, Institute of Nano Science and Technology, Knowledge City, Sector 81, Mohali, 140306, Punjab, India”** so as to reach on or before the due date.
3. **Delivery of the tender:** The tender shall be sent to the below mentioned addressee either by post or by courier so as to reach our office before the due date specified in our Schedule. The offer/bid can also be dropped in the tender box on or before the due date specified in the schedule. The tender box is kept in Foyer area of INST.
4. **Tender Preparation Expenses:** The tenderer shall solely bear all the costs associated with the preparation and submission of the bid. The Institute shall in no case be responsible or liable for such costs, regardless of the conduct or outcome of the tender process. In no case, such costs shall be reimbursed by the Institute.
5. **Opening of the tender:** The offer/bid will be opened by a committee duly constituted for this purpose. The technical bid will be opened first and it will be examined by a technical committee which will decide the suitability as per our specification and requirement. The financial offer/bid will be opened only for the offer/bid which technically meets all our requirements as per the specification. The bidders if interested may participate on the tender opening Date and Time. The bidder should produce authorization letter from their company to participate in the tender opening. Only one representative will be allowed to participate in the tender opening.
6. **Acceptance/Rejection of bids:** The Committee reserves the right to reject any or all offers without assigning any reason.
7. **Pre-qualification criteria:**



- (i) Bidders should be of Authorization (OEM) on the enclosed.
  - (ii) An undertaking would facilitate technology/product updates and extend support for the warranty as well.
  - (iii) OEM should be internationally reputed Branded Company.
  - (iv) Non-compliance of tender terms, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may lead to rejection of the bid.
- the manufacturer / authorized dealer. Letter from original equipment manufacturer same and specific to the tender should be from the OEM is required stating that they the bidder on a regular basis with

8. **Tender Fee/EMD:** Tender fee/EMD is to be obtained from the bidders except those who are registered with the Central Purchase Organisation, National Small Industries Corporation (NSIC) or the concerned Ministry or Department. The tenderer should submit Tender Fee/EMD amount as per tender ref. no. through NEFT/RTGS in INST Account. Account Details are as follows: a. Name of Beneficiary: Institute of Nano Science and Technology (INST)
- b. Account No. **2452201001102**
  - c. Name of Bank: **Canara Bank, Sector 34, Chandigarh**
  - d. IFS Code: **CNRB0002452**
  - e. MICR Code: **160015003**
  - f. Swift Code: **CNRBINBBFFC**

The details of transaction for Tender Fee/EMD viz. Name of bidder firm, Tender Description, Transaction ID/No. of Transfer, Transaction date, Amount of Transaction, Name of Bank, Address of Bank shall be furnished by the tenderer on their letterhead separately along with their tender.

9. **REASONABILITY OF PRICES :**
- Please quote best minimum prices applicable for a premier Research Institution, **leaving no scope for any further negotiations on prices.** **The quoting party should give a certificate to the effect that** the quoted prices are the minimum and they have not quoted the same item on lesser rates than those being offered to INST to any other customer nor they will do so till the validity of offer or execution of the purchase order, whichever is later. We request you to fill the price reasonability certificate format in the enclosed file (Annexure "1")

The party must give details of identical or similar equipment, if any, supplied to any CSIR labs/DBT/DST Institutes during last three years along with the final price paid and Performance certificate from them.

10. **Performance Security:** The supplier shall require to submit the performance security in the form of irrevocable bank guarantee issued by any Indian Nationalized Bank for an amount which is equal to the 3% of Purchase Order value within 15 days after the final installation cum acceptance of the equipment at INST and Performance Security should be valid for a period of 60 days beyond the date of completion of warranty period of the equipment.
11. **Force Majeure:** The Supplier shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- i) For purposes of this Clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Purchaser either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

- ii) If a Force promptly conditions directed by continue to as far as is reasonable alternative means for performance not prevented by the Force Majeure event.



Majeure situation arises, the Supplier shall notify the Purchaser in writing of such and the cause thereof. Unless otherwise the Purchaser in writing, the Supplier shall perform its obligations under the Contract reasonably practical, and shall seek all

12. **Risk Purchase Clause:** In event of failure of supply of the item/equipment within the stipulated delivery schedule, the purchaser has all the right to purchase the item/equipment from the other source on the total risk of the supplier under risk purchase clause.

13. **Integrity Pact**

- a. As per the directives of the Central Vigilance Commission all government departments / organisations / institutes have to adopt an Integrity Pact (IP) to ensure transparency, equity and competitiveness in major public procurement activities. The integrity pact envisages an agreement between the prospective bidders/vendors with the buyer committing the persons/officials of both the parties with the aim not to exercise any corrupt influence on any aspect of the contract. Only those bidders/vendors who are willing to enter in to such an integrity pact with the purchaser would be competent to participate in the bidding.
- b. Integrity Pact also envisages Panel of Independent External Monitors (IEMs) which shall be provided/recommended by INST/its labs and institutes with the approval of by CVC.
- c. The integrity pact would be effective from the date of invitation of bids till complete execution of the contract.
- d. The model format of integrity pact (IP) is at Annexure - 3.

14. **Packing Instructions:** Each package will be marked on three sides with proper paint/indelible ink, the following:

- i. Item Nomenclature
- ii. Order/Contract No.
- iii. Country of Origin of goods
- iv. Supplier's Name and Address
- v. Consignee details
- vi. Packing list reference number

15. **Delivery and Documents:**

Delivery of the goods should be made within a maximum of 12 weeks from the date of placement of purchase order and the opening of LC. Within 24 hours of shipment, the supplier shall notify the purchaser and the insurance company by cable/telex/fax/e mail the full details of the shipment including contract number, railway receipt number/ AAP etc. and date, description of goods, quantity, name of the consignee, invoice etc. The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

- i. 4 Copies of the Supplier invoice showing contract number, goods' description, quantity unit price, total amount;
- ii. Acknowledgment of receipt of goods from the consignee(s) by the transporter;
- iii. Insurance Certificate if applicable;
- iv. Manufacturer's/Supplier's warranty certificate;
- v. Inspection Certificate issued by the nominated inspection agency, if any, and the Supplier's factory inspection report; and
- vi. Certificate of Origin.

- vii. Two copies of of each package.
- viii. The above Purchaser before the Goods have with all documents) responsible for any consequent expenses.



the packing list identifying the contents documents should be received by the arrival of the Goods (except where been delivered directly to the Consignee and, if not received, the Supplier will be

- 16. **Delayed delivery:** If the delivery is not made within the due date for any reason, the institute will have the right to impose penalty 0.5% per week and the maximum deduction is 10% of the contract value / price.
- 17. **Prices:** The price should be quoted in net per unit (after breakup) and must include all packing and delivery charges. The offer/bid should be exclusive of taxes and duties, which will be paid by the purchaser as applicable. However the percentage of taxes & duties shall be clearly indicated. The price should be quoted without custom duty and excise duty, since INST is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty. Necessary certificate will be issued on demand. In case of import supply the price should be quoted on FOB Basis. Also please indicate CIF charges separately upto New Delhi indicating the mode of shipment. INST will make necessary arrangements for the clearance of imported goods at the Airport/Seaport. Hence the price should not include the above charges.
- 18. **Notices:** For the purpose of all notices, the following shall be the address of the Purchaser and Supplier.
  - i. **Purchaser:** The Director,  
Institute of Nano Science and Technology,  
Knowledge City, Sector – 81, Mohali – 140306.
  - ii. **Supplier:** (To be filled in by the supplier)  
.....  
.....  
.....
- 19. **Progress of Supply:** Wherever applicable, supplier shall regularly intimate progress of supply, in writing, to the Purchaser as under:
  - i. Quantity offered for inspection and date;
  - ii. Quantity accepted/rejected by inspecting agency and date;
  - iii. Quantity dispatched/delivered to consignees and date;
  - iv. Quantity where incidental services have been satisfactorily completed with date;
  - v. Quantity where rectification/repair/replacement effected/completed on receipt of any communication from consignee/Purchaser with date;
  - vi. Date of completion of entire Contract including incidental services, if any; and
  - vii. Date of receipt of entire payments under the Contract (In case of stage-wise inspection, details required may also be specified).
- 20. **Inspection and Tests:** Inspection and tests prior to shipment of Goods and at final acceptance are as follows:
  - After the goods are manufactured and assembled, inspection and testing of the goods shall be carried out at the supplier’s plant by the supplier, prior to shipment to check whether the goods are in conformity with the technical specifications attached to the purchase order. Manufacturer’s test certificate with data sheet shall be issued to this effect and submitted along with the delivery documents. The purchaser shall be present at the supplier’s

premises during such location where the clearly indicated. The preparation, if any, purchaser's site at the



inspection and testing if need is felt. The inspection is required to be conducted should be supplier shall inform the purchaser about the site needed for installation of the goods at the time of submission of order acceptance.

- The acceptance test will be conducted by the Purchaser, their consultant or other such person nominated by the Purchaser at its option after the equipment is installed at purchaser's site in the presence of supplier's representatives. The acceptance will involve trouble free operation and ascertaining conformity with the ordered specifications and quality. There shall not be any additional charges for carrying out acceptance test. No malfunction, partial or complete failure of any part of the equipment is expected to occur. The Supplier shall maintain necessary log in respect of the result of the test to establish to the entire satisfaction of the Purchaser, the successful completion of the test specified.
- In the event of the ordered item failing to pass the acceptance test, a period not exceeding one weeks will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserve the right to get the equipment replaced by the Supplier at no extra cost to the Purchaser.
- Successful conduct and conclusion of the acceptance test for the installed goods and equipments shall also be the responsibility and at the cost of the Supplier.

21. **Resolution of Disputes:** The dispute resolution mechanism to be applied pursuant shall be as follows:
- i. In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Executive Director, Institute of Nano Science and Technology (INST) Mohali and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.
  - ii. In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.
  - iii. The venue of the arbitration shall be the place from where the order is issued.

22. **Applicable Law:** The place of jurisdiction would be Mohali (Punjab) INDIA.

#### 24. **Right to Use Defective Goods**

If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the Purchaser shall have the right to continue to operate or use such goods until rectifications of defects, errors or omissions by repair or by partial or complete replacement is made without interfering with the Purchaser's operation.

#### 25. **Supplier Integrity**

The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.

## 26. Training

The Supplier is required and end user personnel to equipment.



to train the designated Purchaser's technical enable them to effectively operate the total

## 27. Installation &

## Demonstration

The supplier is required to done the installation and demonstration of the equipment within one month of the arrival of materials at the INST site of installation, otherwise the penalty clause will be the same as per the supply of materials.

28. **Insurance:** For delivery of goods at the purchaser's premises, the insurance shall be obtained by the Supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War Risks and Strikes. The insurance shall be valid for a period of not less than 3 months after installation and commissioning. ***In case of orders placed on FOB/FCA basis, the purchaser shall arrange Insurance.***

29. **Incidental services:** The incidental services also include:

- Furnishing of 01 set of detailed operations & maintenance manual.
- Arranging the shifting/moving of the item to their location of final installation within INST premises at the cost of Supplier through their Indian representatives.

30. **Warranty:** 1. Warranty period shall be at least 3 years from date of installation of Goods at the INST site of installation. The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the contract. If for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall at its discretion make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. **The warranty should be comprehensive on site.**

**Note: If the OEM warranty is for 12 Months, additional extended warranty of 24 months should be quoted separately with or without price. Also. If a different period of warranty has been specified in the 'Technical Specifications of the equipment' then the period mentioned above shall stand modified to that extent.**

2. The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall immediately within in 02 days arrange to repair or replace the defective goods or parts thereof free of cost at the ultimate destination. The Supplier shall take over the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the Purchaser for the replaced parts/goods thereafter. The period for correction of defects in the warranty period is 02 days. If the supplier having been notified fails to remedy the defects within 02 days, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expenses and without prejudice to any other rights, which the purchaser may have against the supplier under the contract.

31 **AMC:** Annual Maintenance Contract (AMC)/Comprehensive Maintenance Contract (CMC) up to next five years after warranty period is over, should be quoted separately.

32 **Delivery Schedule:** The tenderer should indicate clearly the time required for delivery of the item. In case there is any deviation in the delivery schedule, liquidated damages clause will be enforced or penalty for the delayed supply period will be levied.

### 32. Governing Language

The contract shall be written in of the Contract shall correspondence and other are exchanged by the language.



English language. English language version govern its interpretation. All documents pertaining to the Contract, which parties, shall be written in the same

### 33. Applicable Law

The Contract shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction.

### 34. Notices

Any notice given by one party to the other pursuant to this contract/order shall be sent to the other party in writing or by cable, telex, FAX or e mail and confirmed in writing to the other party's address.  A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### 35. Taxes and Duties

Suppliers shall be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser. However, VAT in respect of the transaction between the Purchaser and the Supplier shall be payable extra, if so stipulated in the order.

36. **Agency Commission:** Agency commission if any will be paid to the Indian agent in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in case of Nil commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent.

### 37. Payment:

- Payment will be made through irrevocable Letter of Credit (LC). Letter of Credit (LC) will be established in the favour of foreign Supplier after the submission of performance security. The letter of credit (LC) will be established on the exchange rates as applicable on the date of establishment.
- i. For Imports, LC will be opened for 100% FOB/CIF value. 80% of the LC amount shall be released on presentation of complete and clear shipping documents and 20% of the LC amount shall be released after the installation and demonstration of the equipment at the INST site of installation in faultless working condition for period of 60 days from the date of the satisfactory installation and subject to the production of unconditional performance bank guarantee as specified in Clause 9 of tender terms and conditions.
- ii. Indian Agency commission (IAC), if any shall be paid after satisfactory installation & commissioning of the goods at the destination at the exchange rate prevailing on the date of negotiation of LC documents, subject to DGS&D registration for restricted items.
- iii. All the bank charges within India will be borne by the Institute and outside India will be borne by the Supplier.
- For Indigenous supplies, 100% payment shall be made by the Purchaser after delivery, inspection, successful installation, commissioning and acceptance of the equipment at INST in good condition

and to the entire production of as specified in In case of be made through the equipment. The with tender:



satisfaction of the Purchaser and on unconditional performance bank guarantee Clause 11 of tender terms and conditions. indigenous supply the 100% payment will bank transfer after receipt & installation of following bank details to be submitted along

- i. Name of Beneficiary:
- ii. Account No. iii.
- Name of Bank: iv.
- IFS Code:
- v. MICR Code:
- vi. Swift Code:

38. **User list:** Brochure detailing technical specifications and performance, list of industrial and educational establishments where the items enquired have been supplied must be provided.

### 39. **Manuals and Drawings**

- Before the goods and equipments are taken over by the Purchaser, the Supplier shall supply operation and maintenance manuals. These shall be in such details as will enable the Purchaser to operate, maintain, adjust and repair all parts of the works as stated in the specifications.
- The Manuals shall be in the ruling language (English) in such form and numbers as stated in the contract.
- Unless and otherwise agreed, the goods equipment shall not be considered to be completed for the purposes of taking over until such manuals and drawing have been supplied to the Purchaser.

40. **Application Specialist:** The Tenderer should mention in the *Techno-Commercial bid* the availability and names of *Application Specialist* and *Service Engineers* in the nearest regional office.

41. **Terms of Delivery:** The item should be supplied to our destination in case of local supply. In case of import supply, the item should be shipped upto New Delhi Airport. The Installation/Commissioning should be completed as specified.

42. **Site Preparation:** The supplier shall inform to the Institute about the site preparation, if any, needed for the installation of equipment, immediately after the receipt of the purchase order. The supplier must provide complete details regarding space and all the other infrastructural requirements needed for the equipment, which the Institute should arrange before the arrival of the equipment to ensure its timely installation and smooth operation thereafter.

The supplier shall visit the Institute and see the site where the equipment is to be installed and may offer his advice and render assistance to the Institute in the preparation of the site and other preinstallation requirements.

43. **Installation:** The equipment or machinery has to be installed or commissioned by the successful bidder within 30 days from the date of receipt of the item at INST. In case of any mishappening/damage to equipment and supplies during the carriage of supplies from the origin of equipment to the installation site, the supplier has to replace it with new equipment/supplies immediately at his own risk. Supplier will settle his claim with the insurance company as per his convenience. INST will not be liable to any type of losses in any form.



44. **Spare Parts:** The all of the following pertaining to spare parts
- i. Such spare parts the Supplier, the Supplier of any warranty obligations under the Contract; and
  - ii. In the event of termination of production of the spare parts:
  - iii. Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - iv. Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

Supplier may be required to provide any or materials, notifications, and information manufactured or distributed by the Supplier: as the Purchaser may elect to purchase from providing that this election shall not relieve

Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc. Other spare parts and components shall be supplied as promptly as possible but in any case within six months of placement of order.

45. **Defective Equipment:** If any of the equipment supplied by the Tenderer is found to be substandard, refurbished, unmerchantable or not in accordance with the description/specification or otherwise faulty, the committee will have the right to reject the equipment or its part. The prices of such equipment shall be refunded by the Tenderer with 18% interest if such payments for such equipment have already been made. All damaged or unapproved goods shall be returned at suppliers cost and risk and the incidental expenses incurred thereon shall be recovered from the supplier. Defective part in equipment, if found before installation and/or during warranty period, shall be replaced within 45 days on receipt of the intimation from this office at the cost and risk of supplier including all other charges.

#### 46. **Termination for Default**

The Purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, terminate the Contract in whole or part:

- i. If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the order, or within any extension thereof granted by the Purchaser; or
- ii. If the Supplier fails to perform any other obligation(s) under the Contract.
- iii. If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.  For the purpose of this Clause:
  - i. “**Corrupt practice**” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
  - ii. “**Fraudulent practice**” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition;”

- In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue the performance of the Contract to the extent not terminated.

47. **Downtime:** During the warranty period not more than 5% downtime will be permissible. For every day exceeding permissible downtime, penalty of 1/365 of the 5% FOB value will be imposed. Downtime will be counted from the date and time of the filing of complaint with in the business hours.

48. **Training of Personnel:** The provide the technical training equipment at the Institute installation of the equipment supplier's cost.



supplier shall be required to undertake to to the personnel involved in the use of the premises, immediately after completing the for a minimum period of one week at the

49. **Disputes 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 Mohali.
50. **Compliance certificate:** This certificate must be provided indicating conformity to the technical specifications.
51. **Acknowledgement:** It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.

SIGNATURE OF TENDERER  
ALONG WITH SEAL OF THE COMPANY WITH DATE

## BID PARTICULARS

1. Name of the Supplier :
2. Address of the Supplier :
3. Availability of demonstration of equipment : Yes / No
4. Tender cost enclosed: : Yes/No if yes
5. Online Tender Fee/EMD submission information enclosed : Yes / No if Yes  
Transaction ID/No. of Transfer \_\_\_\_\_  
Transaction date: \_\_\_\_\_  
Amount of Transaction \_\_\_\_\_  
Name of Bank \_\_\_\_\_  
Address of Bank \_\_\_\_\_
6. Name and address of the Officer/contact person to whom all references shall be made regarding this tender enquiry Name:  
Address:  
Ph:  
Fax:  
Mobile:  
Email:  
Web:

**Compliance statement****for the tender specifications**

Tender Ref No.:

**INST/12(216)/2020-Pur**

<b>S.No.</b>	<b>Check list of documents/Undertakings</b>	<b>Yes/No</b>	<b>Remarks (give explanation if the answer is No)</b>
1.	Is EMD details attached? (if applicable)		
2.	Is the bidder original equipment manufacturer (OEM)/authorised dealer?		
3.	If authorised dealer, recent dated certificate to this effect from OEM, attached or not?		
4.	Undertaking from OEM regarding technical support & extended warranty period		
5.	Validity of 180 days or not?		
6.	Price Reasonability Certificate enclosed as per format??		
7.	Undertaking from bidder regarding acceptance of tender terms & conditions		
8.	Whether list of reputed users (along with telephone numbers of contact persons) for the past three years specific to the instrument attached?		
9.	Does the instrument comply with all the specifications detailed? Attach a separate sheet showing compliance with the specifications and explanations thereto if the equipment varies from the requested specifications.		
10.	Whether free Installation, Commissioning and Application Training offered?		
11.	Whether comprehensive onsite warranty offered?		
12.	Whether Annual maintenance after expiry of comprehensive onsite warranty quoted separately?		



## **Annexure – 1**

### **PRICE REASONABILITY CERTIFICATE (to be submitted in financial bid envelope)**

This is to certify that we have offered the maximum possible discount to you in our Quotation No. \_\_\_\_\_ dated \_\_\_\_\_ for (Value Rs.) \_\_\_\_\_.

We would like to certify that the quoted price are the minimum and we have not quoted the same item on lesser rates than those being offered to INST to any other customer nor we will do so till the validity of offer or execution of purchase order, whichever is later.

Seal and Signature of the tenderer



## Annexure 2

### Local Content Certificate (To be submitted in Technical bid envelop)

This is to certify that the %age of Local content for the quoted tendered item is\_\_\_\_\_.

Seal and signature of the tenderer

Note:

1. As per revised Public Procurement order 2017 D.O. No. P – 45021/2/2017-PP(BE-II) dated June 4, 2020  
Local content means Amount of value added in India which shall be total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item(including all customs duties)as a proportion of the total value, in percent.



## **BID SECURITY DECLARATION**

To  
The Director,  
INST Mohali

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Bank for the period of time of **3 years**, if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by the Bank during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with tender terms and condition.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

For: Name of Company

Authorised Signatory

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all partners to the Joint Venture that submits the bid.]



## **Format of the Integrity Pact INTEGRITY PACT**

Between

Institute of Nano Science and Technology (INST) hereinafter referred to as “The Principal”.

And .....herein referred to as “The Bidder / Contractor.”

### **Preamble**

The Principal intends to award, under laid down organizational procedures, contract/s for.....The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s) and/or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

### **Section 1 – Commitments of the Principal**

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - (a) No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - (b) The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - (c) The Principal will exclude from the process all known prejudiced persons.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action.

### **Section 2 – Commitments of the Bidder(s)/Contractor(s)**

The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.



(a) The Bidder(s)/Contractor(s) will not, directly or through any other Person, offer, promise or give to any of involved in the tender process or the to any third person any material or other legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

Bidder(s)/Contractor(s) will not, directly or firm, offer, promise or give to any of involved in the tender process or the to any third person any material or other legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

(b) The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, Certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

(c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any.

Similarly the

Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s).

Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" is annexed and marked as Annexure.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

(2) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

**Section 3 – Disqualification from tender process and exclusion from future Contracts** If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex -"B".

#### **Section 4 – Compensation for Damages**

(1) If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the contract value or the amount equivalent to Performance Bank Guarantee.

### **Section 5 – Previous**

(1) The Bidder declares occurred in the last 3 (three) country conforming to the other Public Sector exclusion from the tender



(2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure mentioned in “Guidelines on Banning of business dealings”.

### **transgression**

that no previous transgressions years with any other Company in any anti-corruption approach or with any Enterprise in India that could justify his process.

### **Section 6 – Equal treatment of all Bidders/Contractors/Sub-contractors**

(1) The Bidder(s)/Contractor(s) undertake(s) to demand from all Subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.

(2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.

(3) The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

**Section 7 – Criminal charges against violating Bidders/Contractors/Sub contractors** (1) The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

(2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the THE DIRECTOR, INST. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.

(4) The principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

(5) As soon as the Monitor notice, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit nonbinding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

(6) The Monitor will submit a written report to the THE DIRECTOR, INST within 30 days from the date of reference or intimation to him by the Principal and should the occasion arise, submit proposals for correcting problematic situations.

(7) Monitor shall be entitled to compensation on the same terms as being extended to/provided to Director, INST.

(8) If the Monitor has reported to the THE DIRECTOR, INST, a substantiated suspicion of an offence under relevant IPC/PC Act, and the THE DIRECTOR, INST has not, within the reasonable time

taken visible action to reported it to the Chief transmit this information Commissioner.



proceed against such offence or Vigilance Officer, the Monitor may also directly to the Central Vigilance

(9) The word 'Monitor' would

include both singular and plural.

**Section 9 – Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by THE DIRECTOR, INST.

**Section 10 – Other provisions**

(1) This agreement is subject to Indian Law. Place of performance and Jurisdiction is the Registered Office of the Principal, i.e. Mohali, Punjab.

(2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

(3) If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

(4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

\_\_\_\_\_  
(For & On behalf of the Principal)  
(Office Seal)

\_\_\_\_\_  
(For & On behalf of Bidder/Contractor)  
(Office Seal)

Place.....

Place.....

Date.....

Date.....

Witness 1:  
(Name & Address): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Witness 2:  
(Name & Address): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_



Technical Specifications for High Performance Computing (HPC) Cluster

Supply, installation and commissioning of nodes & storage. Integration of new cluster units with existing HPC storage set up.

**1. Expansion of existing Parallel File System Storage and integration of new nodes to be purchased vide this RFP with existing PFS:**

	<b>Specification</b>	<b>Description</b>
<b><u>I.</u></b> <b><u>Master</u></b> <b><u>Node</u></b> <b><u>Qty -1</u></b>	<i>Processor(s)</i>	<i>x86 Architecture with clock speed of at least 2 GHz base frequency, with 14 or more Cores . Supports DDR4 2400 or better memory. 1.35MB cache per core or higher, with AVX 512 instruction set supported natively</i>
	<i>No of Processors</i>	<i>two per node</i>
	<i>Performance Benchmark</i>	<i>Spec int rate 2017 benchmark report for desired Server Model and configuration must be submitted along with the bid. This report must be provided with bid. Log files may also be required to be submitted by bidders at the time of evaluation. Report with Spec_int_2017_rate_base- score must be &gt;=100 with memory configuration &lt;=192GB High Performance Linpack peak performance score per socket must be &gt;=440GFlops</i>
	<i>Memory</i>	<i>128GB or more using 16GB memoy modules. Memory modules/slots with advanced ECC or Chip-Kill or an equivalent technology. If bidders desire to</i>

	<i>supply optimized &amp; balanced memory configuraton they can do so but that is not a mandatory condition of the tender. Per node scalability (after populating offered no. of memory modules system must be scalable up to 192 GB per node or more using same scapacity based memory modules)</i>
<i>RAID Controller</i>	<i>SAS 12Gbps controller that supports RAID 0, 1, 10, 5 ,50 ,60 &amp; 6 with dedicated 2GB cache memory.</i>
<i>Hard Disk Drives &amp; SSDs</i>	<i>6TB SAS×3 Numbers SPEED = 7.2K rpm TYPE = SAS 2 x 480GB SATA Enterprise GRADE SSD (3 DWPD)</i>
<i>HDD bays</i>	<i>HDD bays- supporting 4 or more SAS/SATA Hard drives/ Solid State Drives.</i>
<i>Free I/O slots (Peripheral Component Interconnect Express,PCIe)</i>	<i>Minimum 1 × PCIe 3.0(x16) slot and 1 x PCIe 3.0(x8) slots</i>
<i>Graphics controller</i>	<i>Integrated Graphics with on board controller and a dedicated video port available</i>
<i>Ethernet ports</i>	<i>2 × 1 Gbps Ethernet port with Preboot Execution Environment (PXE) boot capability required number of cables connecting node with switch must be supplied (2 x 2m CAT6 or higher/compatible cable must be supplied)</i>
<i>Ports</i>	<i>Minimum 2 USB 3.0 or higher , 1 VGA, 1 graphics port</i>
<i>Primary Interconnect Port</i>	<i>100 Gbps (or higher) INTEL OPA Single Port Controller with cable (2m copper) must be supplied</i>
<i>Chipset</i>	<i>Compatible CHIPSET</i>
<i>Server managment</i>	<i>IPMI 2.0 Support with KVM and Media over LAN features. Must include all required licenses, if required for using these features. It should be able to automate mgmt. tasks and automated firmware updates. Email Alerting methodology, User management functionality with SSL based security , Multi User Permission Levels, Multi User Profiles USB 2.0 or 3.0 -based drive redirection with support for USB Key , VLAN functionality supports Reading Log Events,</i>
<i>Power supplies</i>	<i>Redundant (N+1) 80 Plus Platinum Certified efficient power supplies.</i>
<i>Cooling</i>	<i>Required no. of Cooling fans.</i>
<i>Operating System</i>	<i>Should support latest version of 64-bit CentOS. And Certified for any commercial Linux flavour (RHEL or SUSE. Certificate must be submitted)</i>
<i>Security features</i>	<i>Automated BIOS/System level encryption to authenticate input and output data passing thru the system. System information including, keys, passwords and digital certificates stored/created must be secured from external software attacks and physical theft. Cryptographic functions offered for system security</i>
<i>Warranty</i>	<i>3 years onsite warranty by OEM / Bidder. Physical on-site warranty services including visits by technical experts of Bidder or OEM for maintenance and technical support whenever needed.</i>
<i>Software Suites</i>	<i>NAMD, ,LAMMPS, and GROMACS research codes/ software suites to be loaded as part of installation process by bidder and provide day to day support for the same.</i>

	<i>Form Factor</i>	<i>Rack Mount up to 1U or lesser per node</i>
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	<b>Specification</b>	<b>Description</b>
<b>2. Compute Nodes Qty -30 Nodes (Per node requirement Is defined here , unless otherwise specified)</b>	<i>Processor(s)</i>	<i>x86 Architecture with clock speed of at least 2.5 GHz base frequency, with 24 or more Cores . Supports DDR4 2933 or better memory. 1.35MB cache per core or higher, with AVX 512 instruction set supported natively</i>
	<i>No of Processors</i>	<i>two per node</i>
	<i>Performance Benchmark</i>	<i>Spec int rate 2017 benchmark report for desired Server Model and configuration must be submitted along with the bid. This report must be provided with bid. Log files may also be required to be submitted by bidders at the time of evaluation. Report with Spec rate _int_2017_ base- score must be <math>\geq 230</math> with memory configuration <math>\leq 512GB</math> High Performance Linpack peak performance score per socket must be <math>\geq 1.6TFlops</math></i>
	<i>Memory</i>	<i>128GB or more using 32GB memoy modules. At least 16 DIMM slots available in total or higher and protected by advanced ECC or Chip-Kill or an equivalent technology. If bidders desire to supply optimized &amp; balanced memory configuraton they can do so but that is not a mandatory condition of the tender. Per node scalability (after populating offered no. of memory modules system must be scalable up to 512 GB per node or more using same capacity based memory modules)</i>
	<i>RAID Controller</i>	<i>Controller available to support RAID 0, 1, 10 levels</i>
	<i>Hard Disk Drives &amp; SSDs</i>	<i>1 x 1TB SATA 7200RPM Enterprise GRADE HDD</i>
	<i>HDD bays</i>	<i>HDD bays(large form factor)- supporting 3 or more SAS/SATA Hard drives / Solid State Drives.</i>
	<i>Free I/O slots (Peripheral Component Interconnect Express,PCIe)</i>	<i>Minimum 1 × PCIe 3.0(x16) slots</i>
	<i>Graphics controller</i>	<i>Integrated Graphics with on board controller and a dedicated video port available</i>
	<i>Ethernet ports</i>	<i>2 × 1 Gbps Ethernet port with Preboot Execution Environment (PXE) boot capability required number of cables connecting node with switch must be supplied (2 x 2m CAT6 or higher/compatible cable must be supplied)</i>
<i>Ports</i>	<i>Minimum 2 USB 3.0 or higher , 1 VGA, 1 graphics port</i>	
<i>Primary Interconnect Port</i>	<i>100 Gbps (or higher) INTEL OPA Single Port Controller with cable (2m copper) must be supplied</i>	



	Chipset	Compatible CHIPSET
	Server management	IPMI 2.0 Support with KVM and Media over LAN features. Must include all required licenses, if required for using these features. It should be able to automate mgmt. tasks and automated firmware updates. Email Alerting methodology, User management functionality with SSL based security , Multi User Permission Levels, Multi User Profiles USB 2.0 or 3.0 -based drive redirection with support for USB Key , VLAN functionality supports Reading Log Events,
	Power supplies	Redundant (N+N) 80 Plus Platinum Certified efficient power supplies. Because of space constraint only multi node architecture is acceptable, with shared chassis /power supplies/cooling fans. Effective form factor per node must <=0.5U per node
	Cooling	Required no. of Cooling fans.
	Operating System	Should support latest version of 64-bit CentOS. And Certified for any commercial Linux flavour (RHEL or SUSE. Certificate must be submitted)
	Security features	Automated BIOS/System level encryption to authenticate input and output data passing thru the system. System information including, keys, passwords and digital certificates stored/created must be secured from external software attacks and physical theft. Cryptographic functions offered for system security
	Warranty	3 years onsite warranty by OEM / Bidder. Physical on-site warranty services including visits by technical experts of Bidder or OEM for maintenance and technical support whenever needed.
	Software Suites	NAMD,LAMMPS, VASP, and GROMACS research codes/ software suites to be loaded as part of installation process by bidder and provide day to day support for the same.
	Form Factor	Rack Mount up to 0.5U or lesser per node

<p><b><u>3. HPL Benchmark Report</u></b></p>	<p>Benchmark Report – High Performance Linpack Report for offered configuration of compute nodes with same CPU model must be submitted with bid for 4,8 and16 nodes respectively or more. Declared results in the benchmark report must not vary by 5% from the actual HPL score produced at the time of installation of nodes at INST Mohali</p>
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Sl. No.	Items
<b><u>4.Integration of Nodes with existing PFS and augmentation</u></b>	Existing Parallel File System Storage is to be augmented with additional 128TB OST storage space configured under RAID 6 configuration and 1% of additional storage in the form of MDT space using SAS 10K RPM drives configured under RAID 10. MDT-OST storage space can be provided thru the same physical unit. New unit is required to be integrated with existing PFS Storage and deliver performance results as described herebelow.



	<p><i>Additional IO Nodes based on same specifications of the existing I/O nodes (Dual CPUs Intel Xeon Scalable Series each with 12C,2.1Ghz, 16.5M cache , 128GB Memory Using 32GB memory modules , 2 x 240GB SATA SSD, Intel OPA Controller, redundant power supplies with 80 Plus platinum certification). Augmentation of storage must be with no single point of failure. Performance of existing PFS Storage must be incremented by at least 1GBbps with the addition of units supplied . IOR Benchmark report for the offered storage augmentation unit with 1GBps performance is to be delivered / showed at the time of material acceptance / signing installation report</i></p> <p><i>Note : required expertise and technical know how must be with bidder to complete the job as desired above. Bidder will have the sole responsibility for the same. In case of any damage / malfunctioning caused to existing set up then bidder will be responsible to rectify the same . Warranty of complete storage system including existing units , licenses and additional units , licenses to be supplied against this tender will be of bidder's responsibility.</i></p>
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<b>Sl. No.</b>	<b>Items</b>
<b><u>5.Racks</u></b>	<p><i>Vendors/bidders should propose optimum HPC solution as per requirement of the above mentioned configuration . Required - 42U Rack with required PDUs and accessories are to be supplied by bidder only. Complete solution must be configured in &lt;=2 x 42U Racks</i></p> <p><i>Industrial Sockets in the Data Centre Room (equipped with air conditioning solution) with UPS Back up will be provided by INST MOHALI.</i></p>

<b>S.No</b>	<b>Description</b>
<b><u>6.Workload Manager</u></b>	<i>Perpetual &amp; floating license with commercial support for all nodes with warranty upgrade. Fully featured version with no limitation to no of jobs and scalability of nodes</i>
	<i>Integrated advanced scheduling features including cross-system scheduling, peer to peer scheduling with advanced fair share &amp; hierarchical fair share reservations, preemption, access control lists (ACLs), Role based access control and backfilling scheduling, multi-cluster scheduling, Meta-scheduling for job scheduling and management across distinct clusters (earlier supplied by clusters are also to be covered)</i>
	<i>Power aware job scheduling to support auto shutdown and auto boot of nodes as per the workload to be supported.</i>
	<i>Topology-aware scheduling (both inter- and intra-node) to ensure maximum application performance while minimizing cross-job network contention;</i>
	<i>Preemption and checkpointing (suspend/checkpoint/requeue) allow users to immediately run high-priority work</i>



	<i>Plugin framework for custom health checking, mitigation, and notification capabilities including off-lining flaky nodes, restarting scheduling cycles and requeuing jobs</i>
	<i>The Management Suite must offer Web/CLI based Job submission, monitoring, management and 3D remote visualization capability with secure access control which can be integrated with LDAP.</i>
	<i>The Cluster Management Suite must Web based tool for administration of HPC including real time monitoring, historical repository based on jobs, users, application etc.</i>
	<i>S/W offered must be commercial support backed S/W. Bidder or the ISV must provide end to end support for the same.</i>

<b><u>7. Operating System</u></b>	CentOS Linux
<b><u>8. HPC Operating System Support by bidder</u></b>	REQUIRED
<b><u>9. Resource Management/Job Scheduling Support</u></b>	REQUIRED
<b><u>10. File Systems</u></b>	Support for Lustre, GPFS FROM DAY ONE ( also native support for augmenting PFS Storage in future)
<b><u>11. Commercial Licensed Cluster Management S/W</u></b>	<p>Unified system management, monitoring toolset for configuration, diagnosis and management of the system, Cluster manager with provisioning, monitoring and reporting capabilities Support Package and Image based provisioning Support Diskfull and diskless cluster deployment Intuitive web interface to manage and customize the cluster Customizing networks and compute node profiles through GUI Customizing compute nodes (upto changing kernel parameter) Able to Push configuration changes and updates to the compute nodes without reinstalling and rebooting</p> <p>Offered solution must be a commercial licensed s/w stack , issued in the name of INST Mohali, with no user and no. of nodes based limitations</p> <p>Note : Offered Stack must have been deployed by OEM / Bidder earlier as well as part of HPC Solution to govt organisations during last 3 years – documentary evidence must be provided</p>
<b><u>12. Software Support for both Serial and Parallel Environment</u></b>	YES

<b>SL No:</b>	<b>Items</b>
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<b><u>13. Interconnect Switches</u></b>	1 Unit of - 24 Port Ethernet Switch for Secondary Communication Purpose
	1 Unit of- 24 Port Ethernet Switch for management network must be supplied
	1 Unit of 48 port Intel OPA based Interconnect switch with redundant power supplies and embedded subnet manager for 48 devices. <ul style="list-style-type: none"> <li>- With Switching capacity 9.6 Tb/s</li> <li>- Out-of-band management enabled from day one</li> </ul>

SL No:	Items
<b><u>14. Training, Acceptance, Installation and Maintenance of HPC Cluster</u></b>	Material supplied shall undergo acceptance tests by user department, only once approved approver's certificate will be issued
	1 Day training is to be imparted by OEM/ Bidder engineers – agenda shall be HPC , Efficient Usage of HPC Cluster, Linux Commands required to operate / for administration, open source research codes' run in an optimized / efficient manner ascertaining best performance. Engineer(s) must be skilled professional engineer(s) with an experience of at least 10 years
	Maintenance of HPC Cluster including necessary maintenance / servicing required
	Open source / commercial codes provided by user committee must be installed by bidder/ OEM's engineering team.
	Note: Total Power consumption of Complete infrastructure , total rack space requirement of complete solution , and total tonnage of air conditioning must be provided with the bid

SL No:	Items
<b><u>15. Pre qualification criteria</u></b>	<p>The Server OEM should have executed at least 3 HPC Cluster projects either directly or thru system integrators(at least one cluster of the size 100TF CPU-CPU or CPU-GPU) during last 10 years (till date of release of tender document) in india using an architecture and technologies similar to this tender in premier Govt Indian academic and research institutions or Private Degree Granting Institute or other govt education &amp; research organisations in India. Details/Proof of the same must be submitted with technical bid. Credential of an OEM will also be considered if supplies were done by their authorized partner.</p> <p>Neither Server OEM nor the bidder be debarred or blacklisted or stopped from supplying equipment to any govt organization in the past.</p> <p>OEM MAF for Server Nodes , Storage and Switches must be attached with the bid .</p> <p>All warranty and support must be provided by the bidder/OEM.</p> <p>The bidder should have at least one service Center in North India with service engineers in the relevant field of quoted item.</p> <p>The bidder should have valid ISO 9001 certification. Please attach a copy of the certificate.</p> <p>The Institute reserves the right to accept or reject any or all of the offers in full/part without assigning any reason whatsoever.</p> <p>The bidder should clearly specify make and model in both Technical and Financial bid.</p> <p>The bidder/OEM must be responsible for complete installation and support the infrastructure.</p>