Online Bids

(through E-Procurement Portal of CPPP)

are invited

for

Supply, Installation, Testing and Commissioning of Private Cloud at Indian Institute of Technology (Banaras Hindu University), Varanasi

Tender No.: IIT(BHU)/IDAPT/2020-21/Cloud

Last Date of Submission: 24-03-2021

Tender opening : 25-03-2021

Director
IDAPT Hub Foundation
Indian Institute of Technology
(Banaras Hindu University)
Varanasi-221005

E-mail: idapt@iitbhu.ac.in

IDAPT Hub Foundation

INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)
VARANASI – 221005

DEPARTMENT/SCHOOL/CENTRE: IDAPT Hub Foundation

Advertised Tender Enquiry Documents

(NOTICE INVITING TENDER)

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

Sl. No.	Tender No. and Last Date	Specifications & Quantity of the item	Earnest Money Deposit to be submitted
1.	**IIT(BHU)/IDAPT/2020-21/Cloud** **24.03.2021**	As per Annexure I	**Rs. 2,00,000/-**

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/appas per the schedule given in the next page.

Aspiring Bidders who have not enrolled/registered ine-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 **Director, IDAPT Hub Foundation, Indian Institute of Technology (Banaras Hindu University), Varanasi – 221005, U.P.**, and should be submitted online on or before the date and time of Bid opening date 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.

Earnest Money shall be forfeited, if it is found at any stage that information/particulars regarding supply of tendered item (s) is false.

Director
IDAPT Hub Foundation
Indian Institute of Technology
(Banaras Hindu University),
Varanasi – 221005

IDAPT Hub Foundation

INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)
VARANASI – 221005

DEPARTMENT/SCHOOL/CENTRE: IDAPT Hub Foundation

TENDER DOCUMENT FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF PRIVATE CLOUD AT INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY), VARANASI

CRITICAL DATA SHEET

Name of Organization	Indian Institute of Technology (Banaras Hindu University)
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Type/Form of Contract (Work/Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	SUPPLY
Date of Issue/Publishing Original Tender	03-03-2021 06.00 PM
Document Download Start Date	03-03-2021 06.00 PM
Document Download End Date	24-03-2021 05.00 PM
Pre Bid Meeting Date* *Queries, if any, to be discussed, MUST be emailed to idapt@iitbhu.ac.in.	No any
Corrigendum, if any	
Last Date and Time for Uploading of Bids	24-03-2021 05.00 PM
Date and Time of Opening of Technical Bids	25-03-2021 05.00 PM
Tender Processing Fee (including GST as applicable) EMD	Rs. 5900/- (For Tender Processing Fee) Rs. 2,00,000/- (For 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 Code - SBIN0011445 **The proof of payment must be enclosed with Technical Bid. Both the transactions should be done separately.**
No. of Covers (1/2/3/4)	02
Bid Validity days	180 days (From last date of opening of tender)
Address for Communication	**Director IDAPT Hub Foundation Indian Institute of Technology (Banaras Hindu University), Varanasi – 221005, U.P.**
Contact No. & E-mail Address	idapt@iitbhu.ac.in

IDAPT Hub Foundation

INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)
VARANASI – 221005

DEPARTMENT/SCHOOL/CENTRE: IDAPT Hub Foundation

TENDER DOCUMENT FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF PRIVATE CLOUD AT INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY), VARANASI

INVITATION FOR BIDS

1. Online bids are invited from eligible bidders for the following:

Sl. No.	Tender no.	Specifications & quantity of the item	Earnest Money Deposit (EMD)
1.	IIT(BHU)/IDAPT/2020-21/Cloud	As per Annexure I	Rs. 2,00,000/-

1. Interested eligible Bidders may obtain further information from IIT (BHU) website: https://www.iitbhu.ac.in/tenders or from Central Public Procurement Portal (CPPP) https://eprocure.gov.in/eprocure/app.

2. Intending bidders are advised to visit IIT (BHU) website https://www.iitbhu.ac.in/tenders and CPPP website https://eprocure.gov.in/eprocure/app regularly till closing date of BID submission of tender for any corrigendum / addendum/ amendment.

3. Earnest Money Deposit is to be deposited electronically by RTGS/NEFT in the account of Registrar, IIT (BHU) in the Bank details mentioned above. Bidders are required to submit the scan copy of payment receipt details of Tender fees and EMD payment at the time of Bid Preparation.

4. This Tender Document contains the following:
   A. Instructions for Online Bid Submission

   B. Instruction to Bidders

   C. General conditions of contract (GCC)

   D. Special Condition of Contracts

   E. Check-list for Bid/Tender submission

   F. Declaration Certificate

   G. Technical specifications for the complete project (Annexure 1)

   H. Compliance Sheet

SECTION 1: INSTRUCTION FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: http://eprocure.gov.in/eprocure/app.

1. **Registration**

   1. Bidders are required to enrol on the e-Procurement module of the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app)by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.

   2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

   3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

   4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.

   5. Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.

   6. Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / eToken.

2. **Searching for Tender Documents**

   1. There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, where in the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.

   2. Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS/ e-mail in case there is any corrigendum issued to the tender document.

   3. The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

3. **Preparation of Bids**

   1. Bidder should take into account any corrigendum published on the tender document before submitting their bids.

   2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents-including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

   3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/scheduleandgenerally,theycanbeinPDF/XLS/RAR/DWFformats.Biddocuments may be scanned with 100 dpi with black and white option.

   4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" are a available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting abid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

5. Submission of Bids

1. Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
3. Bidder has to select the payment option as "on-line" to pay the tender fee/EMD as applicable and enter details of the instrument. Whenever, EMD/Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS.
4. A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and not her format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the file name. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
5. The server time (which is displayed on the bidders' dash board) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
6. Allthedocumentsbeingsubmittedbythebidderswouldbeencryptedusing PKIencryptiontechniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128bit encryption technology. Data storage encryption of sensitive fields is done.
7. The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
8. Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
9. Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

5. Assistance to Bidders

1. Any queries relating to the tender document and the terms and conditions contained there in should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

6. General Instructions to the Bidders

1. The tenders will be received on line through portal http://eprocure.gov.in/eprocure/app. In the Technical Bids, the bidders are required to upload all the documents in **.pdf format**.
2. Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app.Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the website https://eprocure.gov.in/eprocure/app under the link "Information about DSC".
3. Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e-Procurement at https://eprocure.gov.in/eprocure/app.

SECTION 2: INSTRUCTIONS TO BIDDERS

A. Introduction

1. Scope of Work

Supply Installation Testing and Commissioning of Private Cloud at Indian Institute of Technology (Banaras Hindu University), Varanasi.

2. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and "the Purchaser", will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

B. The Bidding Documents

3. Tender Processing Fees

The Tender Processing fees Rs. 5900/-(Rupees Five Thousand Nine Hundred only inclusive of GST and Non- refundable) should be submitted ONLINE as per the details mentioned above. Further, the proof of payment must be uploaded with Technical Bid. The exemption will be applicable as per Govt. of India norms.

4. Content of Bidding Documents

4.1 The goods required, bidding procedures and contract terms are prescribed in the bidding documents. In addition to Invitation of Bids, the bidding documents include:

(a) Instructions for Online Bid Submission

(b) Instruction to Bidders (ITB);

(c) General Conditions of Contract (GCC);

(d) Special Conditions of Contract (SCC)

(d) Schedule of requirements;

(e) Tender form (technical bid).

(f) Tender form (financial bid)

4.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in rejection of its bid.

5. Amendment of Bidding Documents

5.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment.

5.2 All prospective bidders who have received the bidding documents will be notified of the amendment in writing, which will be binding on them.

5.3 In order to allow prospective bidders reasonable time within which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

C. Preparation of Bids

6. Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in English language.

7. Documents Comprising the Bid

7.1 Techno commercial un-priced bid and priced Bids: The bids are to be submitted in two parts i.e. Techno commercial un-priced bid and priced Bids.

(a) Techno commercial un-priced bid along with Earnest Money Deposit (submitted ONLINE in the aforementioned bank account of Institute) as shown in invitation to bids shall be submitted through CPP Portal. If the proof of payment of EMD is not received along with the technical bid, such bid will not be considered. The samples (if required) of all the items shown in the schedule of requirements of each tender should also accompany the techno commercial un-priced bid in a separate sealed envelope.

(b) Priced bid.

7.2 Techno commercial un-priced bid: The Techno commercial un-priced bid prepared by the bidder shall be provided in the following Model Response format:

Model Response format

(a) Standing of each Bidder Manufacturer/Dealer and past experience in supply of the material (certificates to be enclosed), proof of manufacturing Unit/Dealership alongwith all the documents required for proving the credentials regarding the fulfilment of essential pre-bid criteria.

(b) List of other Govt. Departments, Public Sector units and Central Autonomous Bodies for which the bidder is supplying material or having the similar type of contracts and a certificate regarding the satisfactory performance of the contract (In the Annexure III format).

(c) Copy of the audited balance sheet of the vendor for the previous financial year indicating the turnover in supply of the relevant materials/service.

(d) Details of Permanent Account Number and latest income tax clearance certificate.

(e) Details of GST No. along with a copy of certificate to be attached.

(f) Submission of samples if required, for all items indicated in the schedule of requirements. The make of items proposed to be supplied should be indicated in the format of the schedule of requirements and submitted along with the techno commercial un-priced bid without indicating the pricing components.

(g) Willingness to execute all orders which are placed to meet emergency requirement on priority basis. The Bidder shall note that standards for workmanship, material and equipment, and references to brand names designated by the Purchaser in the schedule of requirements are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in his bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

7.3 Price Bid

The price bid shall comprise the techno commercial bid along with the price component indicating the Unit prices for each and every item indicated in the schedule of requirements (Annexure 1).

(a) The prices quoted must be net per unit as shown in the Schedule and must include all charges for delivery at the designated stores i.e. CIP New Delhi/F.O.R. IIT (BHU), Varanasi and should be mentioned clearly.

(b) The rate must be stated for each item separately both in words and figures. If there is a discrepancy between the price quoted in word and figures the higher price quoted will be treated as final.

(c) Quoted prices should be firm and inclusive of taxes/duties, freight and forwarding charges, handling charges, loading and unloading charges, and insurance charges etc. However, the prices must be reflected clearly in BoQ format by mentioning basic rate, GST, Freight charges, Any other Taxes/Duties/Levies and exemptions thereon as applicable to IITs.

(d) The prices once accepted by the Institute shall remain valid till the successful execution of the order and till supplies is fully effected and accepted or **12 months** from the date of acceptance of tender whichever is later. The Institute shall not entertain any increase in the rates during the period. However, in the event there is a reduction or increase in Government levy/duties/taxes during the period of execution of the order, the rates shall be suitably adjusted with effect from the date notifying the said reduction or increase in the Government levy/taxes/duty, if any.

8. Bid Prices

8.1 The Bidder shall indicate on the Schedule of requirements (BoQ), the unit prices of the goods it proposes to supply under the Contract and enclose it with the priced bid.

8.2 Prices indicated on the Price Schedule shall be entered separately in the following manner:

(i) The prices quoted must be net per unit as shown in the schedule of requirements and must include all charges for delivery at the designated stores.

(ii) Any Indian duties, GST and other taxes which will be payable on the goods, if this Contract is awarded;

8.3 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account.

9. Bid Currencies

Prices shall be quoted in Indian Rupees only.

10. Period of Validity of Bids

10.1 Bids shall remain valid for **180** days after the date of bid opening prescribed by the Purchaser. A bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

10.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Bidder may refuse the request without forfeiting its EMD. A Bidder granting the request will not be required nor permitted to modify the bid.

10.3 Bid evaluation will be based on the bid prices without taking into consideration the above modifications.

D. Submission of Bids

11. The tender has to be submitted ONLINE before the due date. The offers received after the due date and time will not be considered. **No manual bids will be considered**.

12. Deadline for Submission of Bids

12.1 Bids must be received by the Purchaser ONLINE not later than the time and date specified in the Invitation for Bids.

12.2 The Purchaser may, at his discretion, extend this deadline for submission of bids by amending the bid documents in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

13. Late/Delayed Bids

The offers received after the due date and time will not be considered.

14. Modifications and Withdrawal of Bids

14.1 The Bidder may modify or withdraw its bid after the ONLINE bid's submission, as per the provision of CPP Portal.

14.2 No bid may be modified subsequent to the deadline for submission of bids. No documents will be accepted in support of essential pre-bid criteria after the last date of submission of bids.

14.3 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity specified by the Bidder on the bid form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its EMD.

E. Bid Opening and Evaluation of Bids

15. Opening of Techno commercial un-priced Bids

The purchaser will open all techno commercial un-priced bids in the first instance.

16. Clarification of Bids

16.1 During evaluation of the bids, the purchaser may, at its discretion, ask the Bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in price or substance of the bid shall be sought, offered or permitted.

16.2 No Bidder shall contact the purchaser on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Institute it should be done in writing.

16.3 Any effort by a Bidder to influence the purchaser in its decisions on bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

17. Evaluation of Techno commercial un-priced Bid

17.1 Prior to the detailed technical evaluation, the purchaser will determine the substantial responsiveness of each bid. A substantially responsive bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviations and meets all the essential pre-bid criteria. If any bidder does not meet the essential pre-bid criteria as laid down in the Instruction to Bidders, then his bid will be summarily rejected. No documents will be accepted in support of essential pre-bid criteria after the last date of submission of bids.

17.2 The purchaser will reject a bid determined as not substantially responsive.

17.3 The bidders may be called for discussion and may be allowed to modify their technical bids to suit the organization's requirement. The idea is to arrive at a threshold level of acceptability above which all the bidders shall be treated on par. Those whose technical specifications do not reach the threshold level of acceptability shall be rejected as technically unsuitable. The price bids of the bidders who finally emerge as technically acceptable shall be opened, evaluated and the contract awarded to the lowest evaluated bidder.

17.4 The bidders short-listed by the purchaser based on meeting the essential pre-bid criteria and detailed evaluation regarding satisfying the technical criteria laid down in this tender document may be called for detailed discussions with a team selected for the purpose, at a specified date, time and venue, if needed.

18. Opening of Priced Bids

18.1 The Purchaser will open the Priced Bids of only those bidders who meet the essential pre-bid criteria and whose techno commercial un-priced bids have been found to be substantially responsive.

18.2 The priced Bids of the technically qualified bidders shall be opened by the tender committee.

19. Evaluation and Comparison of priced Bids

19.1 Arithmetical errors will be rectified on the following basis: If there is a discrepancy between words and figures, whichever is the higher of the two shall be taken as bid price. If the Vendor does not accept the correction of errors, its bid will be rejected

19.2 Bidders shall state their bid price for the payment schedule outlined in the Clause 14 of General Conditions of Contract. Bids will be evaluated on the basis of this base price**.** Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid

price they wish to offer for such alternative payment schedule. The purchaser may consider the alternative payment schedule offered by the selected Bidder but it may not be binding on the purchaser**.**

19.3 The purchaser, at its option may ask some more bidders to match the rates of the lowest bidder for creating parallel suppliers.

19.4 The source of exchange rate shall be: **Reserve Bank of India/Any other authentic source.**

19.5 The date for the exchange rate shall be: **Last day for submission of Bids**.

20. Purchasers right to accept any bid and to reject any bid or all bids

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

21. Award Criteria

i. IIT (BHU) shall award the contract to the technically qualified eligible BIDDER whose bid has been determined as the lowest evaluated commercial bid without Optional Item.

ii. If more than one BIDDER happens to quote the same lowest price, IIT BHU reserves the right to award the contract to more than one BIDDER or any BIDDER.

22. Notification of Award

Prior to the expiration of the period validity, the purchaser will notify the successful Bidder in writing by letter or by fax, to be confirmed in writing by speed post or hand delivered letter, that its bid has been accepted.

23. Factors Affecting the Award of Supply

23.1 The bidder should have its own Contract support facilities. The support facilities should be fully owned and managed by the bidder.

23.2 Conformity with the Request for Bid/Tender required and conditions.

23.3 The assessment based on the response to Model Response Outline.

23.4 The assessment of the capability of the bidder to meet the terms and conditions.

23.5 The bidders must have executed similar orders, for which the bidder is quoting, as indicated in clause 1 for Govt./Semi-Govt./Autonomous Organizations.

23.6 The cost and the discount offered, if any.

24. Fall clause

24.1 The price quoted by the supplier should not be higher than the maximum retail price, if any, for the stores and the same shall not be higher than the price usually charged by the supplier for stores of the same nature, class or description to any other purchaser.

24.2 The price charged for the stores supplied under the contract by the supplier shall in no event exceed the lowest price at which the supplier sells the stores of identical description to any other person during the period till performance of all supply orders placed during the currency of the contract is completed. If at any time during the period the supplier reduces the sale price of such stores or sells such stores to any other person including his dealers at a price lower than the price chargeable under the contract, he shall forthwith notify such reduction or sale to the purchaser and the price payable under the contract for these items of stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

24.3 If it is discovered that the supplier has contravened the above conditions, then without prejudice to any other action which might be taken against him, it shall be lawful for the purchaser to (a) revise the price at any stage so as to bring it in conformity with sub-clause(i) above, or (b) to terminate the contract and purchase the items of stores at the risk and cost of the supplier and in that event

the provisions of Clause 28 of General Conditions of Contract shall, as far as possible, be applicable or recover the loss.

SECTION 3 : GENERAL CONDITION OF CONTRACTS

1. Definitions

In this Contract, the following terms shall be interpreted as indicated:

(a) "The order" means the agreement entered into between the Purchaser and the Supplier including all the attachments and appendices and all documents incorporated as per notification of award.

(b) "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations;

(c) "The Goods" means all the items, which the Supplier is required to supply to the Purchaser under the Contract;

(d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services training and other obligations of the Supplier covered under the Contract;

(e) "GCC" means the General Conditions of Contract contained in this section.
(f) "The Purchaser" means the organization purchasing the Goods i.e. IIT (BHU), VARANASI.
(g) "The Purchaser's country" is India.
(h) "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.
(i) "Day" means calendar day.

2. Application

These General Conditions shall apply to the extent that they are not superseded by provisions in other parts of the Contract.

3. Standards

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned Institution.

4. Use of Contract Documents and Information

4.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

4.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document or information except for purposes of performing the Contract.

4.3 Any document, other than the Contract itself, shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

5. Patent Rights

The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6. Submission of the bids

All bids complete in all respect must be submitted online on or before the Bid Closing date and time as mentioned on Critical Data Sheet. Tenders received without earnest money etc. shall be rejected.

7. Inspections and Tests

7.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser.

7.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data shall be furnished to the inspectors at no charge to the Purchaser.

7.3 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

7.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Purchaser or its representative prior to the Goods shipment.

7.5 Nothing in GCC Clause 7 shall in any way release the Supplier from any warranty or other obligations under this Contract.

8. Consequences of rejection

If in the event the stores are rejected by the purchaser at the destination and the supplier fails to make satisfactory supplies within the stipulated period of delivery, the purchaser will be at liberty to:

(a) Allow the supplier to resubmit the stores in replacement of those rejected, within a specified time without any extra cost to the purchaser or

(b) Reject the material, which shall be final and binding on the contractor.

(c) Procure the rejected materials of comparable quality from the open market/Govt. stores and the supplier shall be liable to pay the difference in price over the RC prices or get the amount adjusted from the outstanding bills of the supplier, if any or EMD.

9. Packing

9.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements, in any subsequent instructions ordered by the Purchaser.

10. Delivery and Documents

10.1 The Supplier shall make delivery of the Goods within **60 days** from the placement of purchase order in pursuance of the notification of award. The purchase order would be placed after assessing the requirements on quarterly basis. However, the supplier shall also arrange to execute all orders on priority basis which would be placed to meet any emergent requirements.

10.2 In case the purchaser decides to conclude parallel rate contracts, then the requirements would be split on different firms on equitable basis as per the discretion of the purchaser.

10.3 The delivery of Stores shall be affected at the premises of the Institute free of all delivery charges and within the stipulated time and as may be elucidated in the confirmed order, accompanied by a delivery challan. No extension of time for delivery of Stores shall normally be accorded.

The supplier shall mail the following documents to the purchaser with a copy to the insurance company:

1. 3Copies of the Supplier invoice showing contract number, goods' description, quantity unit price, total amount;

2. Installation Certificate

3. Insurance Certificate if applicable;

4. Manufacturer's/Supplier's warranty certificate;

5. Inspection Certificate issued by the nominated inspection agency, if any

6. Supplier's factory inspection report; and

7. Certificate of Origin (if possible by the beneficiary);

8. The above documents should be received by the Purchaser before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Supplier will be responsible for any consequent expenses.

Time and date of delivery – the essence of the contract: The time for and the date of delivery of the stores stipulated shall be deemed to be of the essence of the contract and delivery must be completed not later than the date(s) specified.

11. Insurance

The Goods supplied under the Contract shall be fully insured in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery. The insurance shall be obtained by the suppliers 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.

12. Transportation

Where the Supplier is required under the Contract to transport the Goods within India defined as Project site, transport to such place of destination in India including insurance, as shall be specified in the Contract, shall be arranged by the Supplier, and the related cost shall be included in the contract Price.

13. Warranty

13.1 The Supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in India.

13.2 This warranty shall remain valid for at least for at least 36 months(with additional two years of free AMC after warranty period) after the Goods or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, unless specified otherwise.

13.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.

13.4 Upon receipt of such notice, the Supplier shall with all reasonable speed, repair or replace the defective Goods or parts thereof, without any extra cost to the Purchaser.

13.5 If the Supplier, having been notified, fails to remedy the defect(s) within a reasonable period, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

14. Payment

14.1 The payment shall be made **100% payment against Supply, Installation and Commissioning and submission of satisfactory PBG.**

14.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 10, and upon fulfilment of other obligations stipulated in the contract.

15. Prices

Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in his bid. The bidder must mention the applicable taxes/duty and exemptions thereon, if any, as per the Government of India norms. The Institute will provide requisite certificate, if any, required by the bidder as per the applicable Govt. of India norms.

16. Change Orders

16.1 The Purchaser may at any time, by written order given to the Supplier, make changes within the general scope of the Contract in any one or more of the following:

(a) Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;

(b) The method of shipping or packing;

(c) The place of delivery; and/or

(d) The services to be provided by the Supplier.

16.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

17. Contract Amendments

Subject to GCC Clause 16, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

18. Assignment

The Supplier shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

19. Subcontracts

The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in his original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.

20. Delays in the Supplier's Performance

20.1 Delivery of the Goods and performance of the Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser as per GCC clause 10.

20.2 If at any time during performance of the Contract, the Supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may, at its discretion, extend the Supplier's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

20.3 Except as provided under GCC Clause 23, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of penalty pursuant to GCC Clause 21,

unless an extension of time is agreed upon pursuant to GCC Clause 20.2 without the application of liquidated damages.

21. Penalty

Subject to GCC Clause 23, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to1% per week and the maximum deduction is 10% of the contract price of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 22.

22. Termination for Default

22.1 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:

(a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the purchase order, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 20; or

(b) If the Supplier fails to perform any other obligation(s) under the Contract.

(c) 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:

"Corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.

"Fraudulent practice: 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;"

22.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 22.1, 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.

23. Force Majeure

23.1 Notwithstanding the provisions of GCC Clauses 20 & 21, the Supplier shall not be liable for imposition of liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

23.2 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.

23.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such conditions and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

24. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without Compensation to the Supplier provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the Purchaser.

25. Termination for Convenience

25.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

25.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices.

26. Resolution of Disputes

26.1 The Purchaser and the supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

26.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms as specified below. These mechanisms may include, but are not limited to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and national or international arbitration.

26.3 In case of Dispute or difference arising between the Purchaser and a supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996 as amended from time to time.

27. Governing Language

The contract shall be written in English language. Subject to GCC Clause 28, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

28. Applicable Law

28.1 The contract shall be governed by the Law of Contract for the time being in force.

28.2 Irrespective of the place of delivery, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued.

28.3 Jurisdiction of Courts: The courts of the place from where the acceptance of tender has been issued shall alone have jurisdiction to decide any dispute arising out of or in respect of this contract.

28.4 One month notice will be given by either party for termination of Contract during the tenure of Contract for breach of Clause or otherwise.

29. Taxes and Duties

Suppliers shall be entirely responsible for all taxes, duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Purchaser.

30. Performance Security:

(i) Successful bidder have to furnish **3%** of the order value as a performance security in the shape of Fixed Deposit Receipt / Bank Guarantee in favour of the Registrar, Indian Institute of Technology (BHU) valid for a period of 60 days beyond the end of all warranty period / obligations. Fixed Deposit Receipt / Bank Guarantee should be issued from a schedule bank in India.

(ii) Earnest Money Deposit will be refunded to the successful bidder on receipt of Performance Security.

31. 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.

The Institute Reserves The Right To:

1. Increase or decrease the quantity of the item(s) as per requirement subject to variation of maximum of 25% only.

2. Reject the quotation in absence of not furnishing the documentary evidence in respect of Trade Tax Registration (G.S.T), Income Tax and Trade Tax clearance certificates together with the performance of supplies in various branches/institutions.

3. Reject the quotation in the event of non-furnishing the authentic documentary evidence in respect of Testing reports / Performance report of the concerned Govt. Organization / Institutions about the products being manufactured and marketed. The performance test of the product can be conducted at Institute level also for which charge will have to be borne by the suppliers.

4. Reject the supplies already made, if not found up to the mark. Thorough checking may be adopted to test the correctness of the supply. In such an event further action may call to conform or discard the supply.

5. To reject any addition/alteration in respect of local dealerships intimated by the Principals after consideration of the case by the committee appointed by the Institute for the purpose.

6. Cancel this Tender at any point of time without assigning any reason thereof.

7. The Institute also reserves the right to reject the bid of any participated bidder

8. 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:

    (a) If the Supplier fails to deliver any or all of the Goods within the period(s) specified in the purchase order, or within any extension thereof granted by the Purchaser.

    (b) If the Supplier fails to perform any other obligation(s) under the Contract.

    (c) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

9. To reject any or all the offers without assigning any reasons thereof.

10. All disputes are subject to *"Varanasi Jurisdiction"* only.

11. The decisions of the Institute in all respect shall be final and binding on all.

12. The Institute reserves the right to ask the successful bidder to produce all the original documents submitted alongwith the bids for verification at any point of time. During the verification of the document, if it is found that the bidder has concealed/falsified/fabricated any information, the bid and/or purchase order will be cancelled and EMD and/or performance security will be forfeited and action including blacklisting will be taken against the bidder as per norms of the Institute.

13. Please ensure that your offer is complete in all respect as no further clarifications shall be sought from you and reaches us within the last date mentioned above. **The Institute shall not be responsible for any delay etc.**

<div align="right">

....
Indian Institute of Technology,
(Banaras Hindu University)

</div>

NOTE: 1- *While arranging the Tender Documents, check list should be placed on TOP.*

SECTION 4 : <u>SPECIAL CONDITIONS OF CONTRACT</u>

(to be defined by the Purchaser as per the requirement)

1. Essential Pre Bid Criteria, if any

I. **The bidder must have executed same nature of works in the last 3 years in any IITs/NITs/Govt. Office/PSU/University/Autonomous Body with order value of at least Rs. 20 lakhs each.**

II. **User List**: Provide users for last 3 years with contact person name, address, phone, and email IDs in prescribed format of Annexure III.

III. The Tender should be enclosed with proper certifications like **Authorization Certificate and Proprietary Certificate in case of Proprietary items.**

IV. Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.

V. Warranty period to be clearly mentioned and should begin from the date of installation. Annual Maintenance Contract Charges should be clearly mentioned after three years warranty and two years mandatory free AMC period.

NOTE: THE BID OF THOSE BIDDERS WHO FAILS TO COMPLY THE ABOVE ESSENTIAL CRITERIA WILL NOT BE CONSIDERED FOR TECHNICAL EVALUATION.

2. Documents Comprising the Bid

The tender/Bid shall be submitted online in two part, viz., Technical Bid and Commercial Bid.

I. Technical Bid

The following documents are to be scanned and uploaded as part of the Technical Bid as per the tender document:

(a) Scanned copy of Tender Forms (Techno Commercial Un-Priced Bid), Declaration, Bidder's Information Form, and Tender Acceptance Letter;

(b) Scanned copy of proof for submission of Tender Document Fee/ Earnest Money Deposit/Exemption Certificate, if any etc.;

(c) Scanned copy of written confirmation authorizing the signatory of the Bid to commit the Bidder;

(d) Scanned copy of quoted product brochure

(e) Scanned copy of completely filled Annexure III with supporting documents

(f) Scanned copy of Technical Bid and essential Pre-bid Details, if any.

   i. Scanned copy of documentary evidence establishing the Bidder's qualifications to perform the contract if its bid is accepted and the Bidder's eligibility to bid;

   ii. Scanned copy of documentary evidence, that the Goods and Related Services to be supplied by the Bidder are of eligible origin and conform to the Bidding Documents, and

(g) Scanned copy of Checklist, compliance of Essential pre-bid criteria and Technical Compliance Sheet (Annexure II) and any other document required as per the tender;

II. Commercial Bid

The commercial bid comprises of :

(i) Scanned copy of Tender Form (Price Bid)

(ii) Price bid in the form of **.xls format** and to be uploaded in .xls& duly signed in .pdf format.

The Price bid format is provided as .xls format along with this Tender Document at http://eprocure.gov.in/eprocure/app. Bidders are advised to download this .xls format and quote their offer/rates in the prescribed column.

In addition to the above requirements, bids submitted by a Joint Venture, shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement, there to.

The Bidder shall furnish in the Tender Forms information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

3. Installation & Demonstration

The supplier is required to done the installation and demonstration of the equipment within…………of the arrival of materials at the IIT (BHU) site of installation, other wise the penalty clause will be the same as per the supply of materials.

In case of any mishappening/damagetoequipmentandsuppliesduringthecarriageofsuppliesfrom 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. IIT (BHU) will not be liable to any type of losses in any form.

4. Application Specialist

The Tenderer should mention in the Techno-Commercial bid the availabilityandnamesofApplicationSpecialistandServiceEngineersin the nearest regional office.

5. Spares

The Supplier i s required to provide state availability of spares for ten years, if required.

6. Training of Personnel

The supplier shall be required to undertake to provide the technical training to the personnel involved in the use of the equipment at the Institute premises, immediately after completing the installation of the equipment for a minimum period of one week at the supplier's cost.

7. Manuals/Documents

1 set of hard copy and 1 set of soft copy in English (preferred as following).

   i.   Operating manual
   ii. Servicing & Maintenance manual
   iii. Spare parts list with source of supply and prices
   iv. Pre-installation requirements.

8. Services

Vendor must submit Factory Acceptance Test procedure supported with relevant printed literature and certificates.

9. The Tender document should also indicate what kind of service/maintenance is required for the system. Whether this service has to be carried out by a company engineer or it can be carried by trained service personnel within India. The frequency of visit and the charges should be mentioned.

10. The Tender should be enclosed with proper certifications like **Authorization Certificate** and **Proprietary Certificate (**in case of Proprietary items).

11. Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.

12. Bid should include FOR IIT(BHU), Varanasi prices. The Institute will provide requisite certificate, if any, required by the bidder as per the applicable Govt. of India norms.

13. The vendor to provide compliance statement with respect to each technical specification in the tender document duly supported by the manufacturer's literature. Any other claim will not be accepted and may lead to rejection of the bid.

14. Printed literature in support of compliance to the prescribed specifications is to be submitted.

15. Compliance report needs to be submitted as a part of the technical bid.

16. Exemption is allowed from payment of Tender fees and EMD as per Government of India norms against submission of currently valid certificate specifically for the item(s) proposed to be procured through this Tender.

IMPORTANT NOTE:

1. Non-compliance of tender terms, non-uploading of required documents, lack of clarity of the specifications, contradiction between bidder specifications and supporting literature etc. may lead to rejection of the bid.

2. In the tender, either the Indian agent on behalf of the Principal/OEM or Principal/OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

3. If an agent submits bid on behalf of the Principal/OEM, the same agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product.

   All documents in support of above essential pre-bid criteria shall be scanned and uploaded under cover 1

SECTION 5 : CHECKLIST FOR BID/TENDER SUBMISSION
(The following check-list must be filled in and submitted with the bid documents)

Sl. No.	Particulars	Yes/No
1	Have you attached the techno commercial unpriced bid form duly filled in appropriately?	
2	Have you attached a copy of the last audited balance sheet of your firm	
3	Have you attached the details of the income tax clearance certificate, proof of manufacturing unit/ dealership letter/ general order suppliers and copy of GST registration certificate?	
4	Have you executed the similar nature of work in last 5 year in IITs/NITs/Govt. Office/PSU/University/Autonomous Body	
5	Have you attached the copies of relevant work orders from Govt. Depts. / PSUs and Central Autonomous Bodies in prescribed Format?	
6	EMD: Have you submitted EMD asked for.	
7	Have you submitted samples of all items indicated in the respective schedule of requirements at the address of tender inviting authority within due date.	
8	Have you enclosed the schedule of requirement indicating the make offered without indicating the pricing components along with the techno commercial un priced bid?	
9	Have you submitted the bids both techno commercial un priced and priced bid separately for each tender?	
10	Have you enclosed the statement of deviations from financial terms and conditions, if any?	
11	Have you submitted the Technical Compliance Sheet?	
12	Have you attached Manufacturer's Authorization certificate for this Tender?	
13	Have you attached the Declaration on the letter pad of Bidder?	
14	Have you attached the compliance of Pre-qualification criteria?	
15	Have you attached the signed Tender acceptance letter?	
Price Bid		
1	Have you signed and attached the priced bid form?	
2	Have you attached the schedule of requirements duly priced i.eBoQ in both .XLS and .PDF format	

Compliance Sheet of Essential Pre Bid Criteria

Sl. No.	Essential Pre Bid Criteria	Compliance
1.	**The bidder must have executed same nature of works in the last 3 years in any IITs/NITs/Govt. Office/PSU/University/Autonomous Body with order value of at least Rs. 20 lakhs each.**	
2.	**User List**: Provide users for last 3 years with contact person name, address, phone, and email IDs.	
3.	The Tender should be enclosed with proper certifications like **Authorization Certificate and Proprietary Certificate in case of Proprietary items.**	
4.	Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.	
5.	Warranty period to be clearly mentioned and should begin from the date of installation. Annual Maintenance Contract Charges should be clearly mentioned after three years warranty and two years mandatory AMC period.	

SECTION 6

DECLARATION
(On the letter head of the firm submitting the bid)

1. I, -- Son /Daughter of Shri-- -- Proprietor/ Partner/ CEO /MD/ Director/ Authorized Signatory of M/s. -- am competent to sign this declaration and execute this tender document.

2. I have carefully read and understood all the terms and conditions of the tender and hereby convey my acceptance of the same.

3. The information/ documents furnished along with the above application are true and authentic to the best of my knowledge and belief.

4. I/ we/ am are well aware of the fact that furnishing of any false information/ fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

5. Each page of the tender document and papers submitted by my Company is authenticated, sealed and signed, and I take full responsibility for the entire documents submitted.

6. This is certified that our organization has been authorized (Copy attached) by the OEM to participate in Tender. We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document. Moreover, OEM has agreed to support on regular basis with technology / product updates and extend support for the warranty.

7. The prices quoted in the price bids are subsidized due to academic discount given to IIT (BHU), Varanasi.

8. We, further specifically certify that our organization has not been Black Listed/ De Listed or put to any Holiday by any Institutional Agency/Govt. Department/Public Sector Undertaking in the last three years.

Signature of the Authorized Person

Date: ----------------------------

Full Name ------------------------

Place: ---------------------------

Company Address with Seal

SECTION 7

TENDER FORM

(Techno commercial un-priced Bid)
(On the letter head of the firm submitting the bid)

Tender No. …………………………….

To

    The _____

Dear Sir,

1.   I/We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders;

2.   I/We meet the eligibility requirements and have no conflict of interest ;

3.   I/We have not been suspended nor declared ineligible in India;

4.   I/We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services]*;

5.   I/We offer to supply the items as listed in the schedule to this tender hereto/portion thereof as you may specify in the acceptance of Tender at the price given in the said Schedule and agree to hold this offer open for a period of …………………. days from the date of opening of the tender.

6.   I/we shall be bound by a communication of acceptance issued by you.

7.   I/We have understood the Instruction to bidders and Conditions of Contract in the form as enclosed with the invitation to the tender and have thoroughly examined the specifications quoted in the Schedule hereto and am/are fully aware of the nature of the goods required and my/our offer is to supply the goods strictly in accordance with the specifications and requirements.

8.   A proof of payment of Rs……………….(Rupees………………….……………….……only) as Earnest Money in the aforementioned account of Registrar, IIT (BHU).

9.   The following have been added to form part of this tender.
    (i)   Schedule of requirements, quoting the make only duly signed and stamped.(without indicating price)
    (ii) Income Tax clearance certificate.
    (iii) Copy of last audited balance sheet.
    (iv) Copy of Valid GST registration certificate.
    (v) Copy of similar relevant major purchase orders executed during last Three years in IITs/NITs/Govt. Office/PSU/University/Autonomous Body.
    (vi) Proof of manufacturing Unit, dealership certificate/general order suppliers.
    (vii)Statement of deviations from financial terms & conditions, if any.
    (viii)   Any other enclosure. (Please give details)

10.   We undertake to execute all orders which have been placed to meet emergent requirements on priority basis.

11.   Certified that the bidder is:

(a) A sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,

Or

(b) A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.

Or

(c) A company and the person signing the document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions should invariable be duly attested by the person authorized to sign the bid document).

12. We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof shall constitute a binding contract between us.

13. If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

14. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process, other than alternative bids submitted;

15. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption

Name of the Bidder* …………………………………………

Name of the person duly authorized to sign the Bid on behalf of the Bidder** ………………..

Title of the person signing the Bid ……………………………….

Signature of the person named above ………………………………..

Date signed ……………. day of …………………….

* In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder
** Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules.
Yours faithfully,

(Signature of bidder)

Dated this day of _____

Address: …………………………………………………

Telephone No. :_____

FAX_____

E-mail_____

　　　Company seal

TENDER FORM

(Priced Bid)

(On the letter head of the firm submitting the bid document)

To,

The _____

_____

_____

Ref: Tender No…………………………………………Dated: ………………….……..……….

Sir,

Having examined the bidding documents and having submitted the techno commercial unpriced bid for the same, we, the undersigned, hereby submit the priced bid for supply of goods and services as per the schedule of requirements and in conformity with the said bidding documents.

1. We hereby offer to supply the Goods/Services at the prices and rates mentioned in the enclosed schedule of requirement.

2. We do hereby undertake that, in the event of acceptance of our bid, the supply of Goods/Services shall be made as stipulated in the schedule of requirement and that we shall perform all the incidental services.

3. The prices quoted are inclusive of all charges net CIP New Delhi/FOR IIT(BHU) Varanasi and should be mentioned clearly. We enclose herewith the complete Financial Bid as required by you. This includes:
   a. Price Schedule (Bill of Quantity-BOQ).
   b. Statement of deviations from financial terms and conditions.

4. We agree to abide by our offer for a period of 180 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.

5. We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions. The Financial Deviations are only those mentioned in the statement of deviations from financial terms and conditions.

6. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: **[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]**

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

7.   We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

8.   We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Certified that the bidder is:
A sole proprietorship firm and the person signing the bid document is the sole proprietor/ constituted attorney of sole proprietor,
<div align="center">**Or**</div>
A partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,
<div align="center">**Or**</div>
A company and the person signing the bid document is the constituted attorney.
(NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document.)

We do hereby undertake that, until a formal notification of award, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.

Dated this day of _____
Signature of Bidder _____
Details of enclosures _____
Full Address: _____
                      _____
_____
Telephone No._____
Mobile No. : _____
Fax No. : _____
E-mail: _____

Company Seal

TENDER ACCEPTANCE LETTER

(To be given on Company Letter Head)

Date:

_____

_____

_____

_____

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No._____

Name of Tender/ Work: -

_____

_____

Dear Sir,

1. I/We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

   _____

   _____

   as per your advertisement, given in the above mentioned website(s).

2. I/We hereby certify that I/We have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like section(s), schedules(s) etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/ clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/ corrigendum(s) in its totality/entirety.

5. In case any provisions of this tender are found violated, then your department/organisation shall without prejudice to any other right or remedy be at liberty to reject this tender/bid including the forfeiture of the full said earnest money deposit absolutely.

Yours faithfully,

(Signature of the Bidder, with Official Seal)

FORMAT FOR PERFORMANCE BANK GUARANTEE (PBG)/ PERFORMANCE SECURITY

(To be typed on Non-judicial stamp paper of the value of Indian Rupees of One Hundred)

(TO BE ESTABLISHED THROUGH ANY OF THE NATIONALISED COMMERCIAL BANKS (WHETHER SITUATED AT VARANASI OR OUTSTATION) WITH A CLAUSE TO ENFORCE THE SAME ON THEIR LOCAL BRANCH AT VARANASI)

To,
The Registrar,
Indian Institute of Technology (BHU),
Varanasi-221005

LETTER OF GUARANTEE

WHEREAS Indian Institute of Technology (BHU), Varanasi (Buyer) has invited tender vide Tender No.............................. dated........................... for purchase of .... AND WHEREAS the said tender document requires that eligible successful bidder (seller).. wishing to supply the equipment / machinery, etc. in response thereto shall establish an irrevocable Performance Bank Guarantee in favour of " The Registrar, Indian Institute of Technology (BHU), Varanasi" in the form of Bank Guarantee for Rs .... (3**% of the contract value**) and the Performance Bank Guarantee shall remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the seller, including warranty obligations from the date of issue of Performance Bank Guarantee and the eligible successful bidder (the seller) shall submit the same within 30 (Thirty) days from the date of Award of Contract.

NOW THIS BANK HEREBY GUARANTEES that in the event of the said bidder (seller) fails to abide by any of the conditions referred to in tender document / Award of Contract / performance of the equipment / machinery, etc. this Bank shall pay to Indian Institute of Technology (BHU), Varanasi on demand and without protest or demur Rs .... (Rupees.......................................).

This Bank further agrees that the decision of Indian Institute of Technology (BHU), Varanasi (Buyer) as to whether the said bidder (Seller) has committed a breach of any of the conditions referred in tender document / Award of Contract shall be final and binding.

We, ... (name of the Bank & branch) hereby further agree that the Guarantee herein contained shall not be affected by any change in the constitution of the bidder (Seller) and/ or Indian Institute of Technology (BHU), Varanasi (Buyer). **Notwithstanding anything contained herein:**

1. Our liability under this Bank Guarantee shall not exceed Rs. ....……………………. .(Indian Rupees .... only).

2. This Bank Guarantee shall be valid up to ....(date) and

3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if IIT (BHU), Varanasi serve upon us a written claim or demand on or before ....(date). This Bank further agrees that the claims if any, against this Bank Guarantee shall be enforceable at our branch office at .... situated at .... (Address of local branch).

Yours truly,
Signature and seal of the guarantor:
Name of Bank:
Address:
Date:

SCHEDULE OF REQUIREMENTS

I. TECHNICAL SPECIFICATIONS

1. Private Cloud with HCI with 40G connectivity.

Data Centre Facility	
S.N.	**Minimum requirement description**
Solution Capability	
1	Hyper Converged Infrastructure (HCI) solution must integrate storage, compute, networking, hypervisor, real-time deduplication, compression, and optimization along with powerful data management, data protection, and disaster recovery capabilities in a standard x86 server. The entire HCI Solution comprising of hardware and software must be managed, support and maintained as single system as a Turn-key Solution.
2	Each Server Node should be in a "2U Rack".
3	The proposed HCI appliance nodes should provide 40G connectivity. Each node should be offered minimum 4 x 10GbE SFP+ Ports or better. Dedicated out of band management port must be provided in each node.
4	Proposed HCI solution should be software defined with deduplication and compression. The HCI solution should support scaling hyperconvered node under a single cluster.
5	The HCI software should pool all HDDs in the cluster to present a single storage resource pool in the cluster. The HCI solution should support both hybrid and All-Flash nodes options for future scalibility.
6	The HCI should be proposed with All Flash/SSD.
7	The proposed HCI appliance solution should be Software defined with required Software or Hardware engine to enable Software Defined Storage
Cluster Capability	
8	The solution should support minimum 16 nodes in a same cluster/ deployment and each node shall be able to access the storage of all nodes in the cluster.
9	The solution shall provide the ability to rapidly on-board new hosts or removal of hosts without any disruption or downtime to the cluster/solution
10	The proposed solution must have capability to support nodes with same and different CPU & Memory configurations in the same cluster.
11	The proposed solution scale storage and compute as and when needed without any downtime as and when needed.
High Availability Features	
12	Converged nodes should provide boot/OS drive or OEM better solution. Boot disk should be in addition to capacity and cache disks.
13	Each node shall be provided with Redundant cards (10Gbps) for no single point of failure.
14	The proposed HCI solution must have mechanism for Metadata protection within the cluster so as to provide high availability and no single point of failure.
15	The solution shall provide zero downtime host patching with maintenance mode to move running workloads to other hosts on the platform without impacting the running VM's.
16	Each HCI Appliance node must have Redundant Hot Plug High Efficiency Power Supply with N+N configuration along with Redundant Hot Plug High Speed Cooling Fans.
Backup Features	

17	Backup & data protection functionality shall be integral feature of Hyper-Converge. Offered solution shall be able to copy the backup file along with metadata to different cluster as a native feature of backup and restore.
18	Native storage/VM level snapshots or Space efficient full backups with minimal impact to guest performance or using any additional storage capacity.

Security Features

19	The solution should support security compliance for proposed HCI solution to ensure highly secure HCI environment.
20	The proposed solution should be able to provide Data-At Rest-Encryption for additional data security. The proposed solution should be offered with Local key management solution and shall be certified to work with external key management solutions
21	The proposed encyrption solution should be at-least FIPS 140-2 Level 1 validated enterprise-class encryption solution.
22	Solution shall provide Hardware root of trust. System should support remote out of band management chip creating a fingerprint in the silicon, preventing servers from booting up unless the firmware matches the fingerprint. This feature should be immutable
23	Solution should maintain repository for firmware and drivers recipes to aid rollback or patching of compromised firmware. Should also store Factory Recovery recipe preloaded to rollback to factory tested secured firmware

Storage and Data Protection Features

24	The solution shall provide hyperconverged software that allows delivery of enterprise-class storage services using latest x86 server infrastructures without dependence on a separate Storage Area Network & associated components such as SAN Switches & HBAs.
25	The HCI solution should provide Inline Deduplication & compression across all storage tiers. Any license & hardware resource required to achieve this functionality should be included with the proposed solution.
26	All licenses should be included with the solution for Maximum Memory & Storage capacity expansion. The HCI storage should be a scale-out distributed storage. The HCI software should pool all HDDs from all the nodes in the cluster to present a single storage resource pool to all server nodes in the cluster.
27	Data efficiency shall be handled at data granularity of 4KB or 8KB data blocks. In case vendor are using the chunk size of more than 8KB, then vendor shall do sizing after adding 20% additional capacity (CPU, memory and storage capacity) on the top of base capacity as asked in the rfp.
28	The solution should automatically rebalance data to maintain balanced utilization of storage across the HCI nodes.
29	The Solution should support Instant space optimized point-in-time Snapshots/backups. Should allow for taking snapshots/backups of individual Virtual Machines to be able to revert back to an older state, if required. The Solution should allow for taking clones of individual Virtual Machines for faster provisioning. The HCI solution should have integrated wizard to schedule snapshot/clones/backups for hourly/weekly/monthly policies. Any additional software and license required should be provided on day 1.
30	HCI Solution should include Redundant Interconnect switches to support low latency East-West traffic between HCI Nodes. Each switch should provide minimum 24 optical ports with redundant power supplies and cooling fans. Each Switch should provided 8*10Gps SFP+ ports or Bandwidth for uplink connectivity to external LAN/Network switch.

Management Features

31	Monitoring and analytics engine shall be tightly integrated with offered Hypervisor layer. Vendor shall provide the highest slab licenses of multiple clusters management.
32	Monitoring and integration tool shall have in-built mechanism with back-end support team for automatic support case logging of defined error conditions.
33	Monitoring and integration tool shall have capability to identify the top VMs which are contributing towards maximum IOs and space consumption.
34	Proposed solution must be able to support the following Global Management features, single administrator to manage all aspects of the Hyper-convergence from within the Virtualization Manager for all sites.
35	Remote management features, Platform must provide management through a web based /remote GUI console. Platform should support LDAP Active Directory integration.
36	The solution should have automated call home capability for remote log collection and proactive support in the event of critical server failure.

Minimum Configuration

37	HCI cluster should have minimum 3 Node. Each node must be offered with 36 cores and 400GB memory. This must be usable cores & memory and all overheads must be added additionally considering deduplication and compression as always ON feature.
38	Cluster to provide 30TB usable storage capacity with RF2 / FTT1 (2 Copies of Data) or better for data protection without considering any data saving technique like (erasure coding, de-duplication, compression etc) using SSD/Flash drives or better drives. Solution shall be able to withstand one Node failure.
39	Each server node in the cluster to be provided with 2 No. of Nvidia T4 GPU cards. Required licenses for Nvidia Virtual Compute server should also be added along with support.
40	If additional resources required by Data Centre Facility solution (including Storage Services, HCI features, third party/additional software's) then it should be factored additionally and provisioned into solution from day 1. All bidders are requested to share OEM published documentation for overhead consideration.

Virtualization

41	Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general purpose OS for greater reliability and security. Virtualization software should allow for hot addition of vCPU, memory, disk without any downtime.
42	Virtualization software shall allow heterogeneous support for guest Operating systems like Windows client, Windows Server, Linux (at least Red Hat, SUSE, Ubuntu, CentOS).
43	Virtualization software should have Integration of 3rd party endpoint security to secure the virtual machines with offloaded antivirus, antimalware, firewall and hips solutions without the need for agents inside the virtual machines.
44	Solution should provide all benefits like High Availability, Dynamic allocation of resources and migration of Virtual Machines from one physical server to another.
45	Migration of VMs in case one server fails all the Virtual machines running on that server shall be able to migrate to another physical server running same virtualization software.
46	Solution should include VM Management software. Provided Software shall also be able to manage any existing or upcoming VM inventory running on the same Hypervisor. Proposed license shall be able to manage more than 16 Nodes. The VM Management Software should run on the provided HCI cluster.

Management -Automation & Orchestration

47	The solution should support Single click non-disruptive rolling upgrades of HCI software and system firmwares. The solution should Track, report, and view trends for metrics like CPU, memory, IOPs, latency etc.
48	Hyper-converge solution should have single upgrade management console to simplify upgrade of Hyper-converge Software, hypervisor and ability to roll back back upgrades.
49	The proposed solution should support tool to provision server using RESTful API to discover and deploy servers at scale. Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell

Automation & Orchestration
(Solution should support below functionalities , Commercials to be quoted optional for Point 50-52)

50	Orchestration tool should have functionality to provide Infrastructure as a Service (IaaS). It should have workflow designer and policy drived infrastructure automation. It should be able to create orchestration task and workflow rapidly. Tool must support multi vendor physical and virtual infrastructure.
51	Orchestration tool should provide functionality of Self Service Portal which should create service catalog for consumption by users/department. Tool should be able to show resource consumption / utilization report. Admin should be able to view request from end User / Group admin.
52	Orchestration tool should provide secured and isolated multi tenancy. Tool should be able to define application / service blueprints and publish these as catalogs for the tenants to consume.

Support and Licenses

53	3 years OEM Support for proposed Hardware & Software.
54	The Data Centre Facility should be created and run as a turn-key solution housed in a self-cooled smart rack of 42 U size with necessary online UPS Powerback-up for 6 Hours on full load with N+1 redundancy. Complete infrastructure MUST be run by a Resident Engineer on-campus at the host institute with 24x7x365x5 up-time and with complete technical and administrative support and operations on the Data Centre Facility.

2. Smart Rack

Specification of Modular Data Center – Single Smart Rack Solution with total 7 KW cooling capacity (N+N) and UPS System 10 KVA (N+N) with 60 Minutes backup.		
Sl No	Specification	Description of Items
1.	Modular Design	(i) The Mini Data Center (42HU x 1Nos) suitable for free standing installation. (ii) Provisioning of Mini Data Center for further extension.
2.	Dimension (HXWXD) in mm	42U x 1 Nos.- 1000 mm Wide x 2000mm Height x 1200mm Deep. Rack should have base frame of 100mm height for stability. Load bearing capacity of rack frame should be 1400 Kgs. Rack should made of CRCA sheet steel with minimum nine folded frame with 1.5 mm thickness. Top cover and bottom cover should have cable entry provision. Rack front and rear door should have PU gasket. Each rack should have 2 Nos. vertical and 4 Nos. horizontal cable manager. Each rack should have 10 Nos. tool less banking frames of 1U size. Required 7 KW cooling capacity with redundancy N+N redundancy

		in inclusive of both the racks.
		Racks should have rodent repellent.
		Rack front door should have electronic key pad system.
		Rack rear door should be equipped with auto opening system.
		Rack should have air baffle plate.
		Racks should have water leak sensor.
		Rack should have provision to mount the cooling system inside in vertical form without consuming any u space.
		Rack, cooling system, fire system and monitoring system (at least 3 main component) required from one OEM for better services.
		Each rack with minimum 37U usable space.
4.	**Access Control**	(i)The Front door of Mini Data Center should be fitted with High Security Electro-mechanical code combination lock & Rear with auto door opening system,
5.	<u>**Cooling System**</u> • Cooling output range 5 – 7kW • Cooling noise level 80 dB (A) • Voltage 230/1/50 V/Ph/Hz • External unit • Refrigerant R 407C • Injection pipe • Suction pipe • Cooling operating range -16/43°C	**Outdoor climate control with Inverter technology** Harmonized modular components should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of latest technology and for the R 407C refrigerant. Cooling unit mount should be mount vertical to provide the uniform air flow inside the rack, Unit should not take any U space. **The system should include:** **(i)** 2x Heat exchanger (evaporator)for placing on the inside of the system. **(ii)** 2x Condensor externalunitworks with R407C refrigerant. **(iii)** DX control box to activate the evaporator **(iv)** LCD display, digital temperature display between 18 and 29°C. **(v)** Cooling system should not occupy any U space in the rack. **(vi)** Cooling system mount in vertical form to provide the uniform air flow.
6.	<u>**Electrical Power Distribution System**</u>	(i)Provisioning of structured power distribution system. The 3-Phase commercial conditioned 440V/50Hz power supply will be made available by the user at the Distribution panel along with MCCB. (ii)This Main Distribution panel will be used to distribute power to all power consuming devices used in Mini Data Center such as: UPS, Air-Conditioning system.
8.	**Power Distribution Units for Racks**	Vertical PDU for Racks with 20 Nos C13 & 4 Nos of C19 Sockets with industrial socket 32A.
9.	**Monitoring**	Provisioning of IP based monitoring Fault signals -Temp/ Humidity, WLD, Fire system and Automatic rear Door Kit, Door access.
10.	**(Monitoring & Remote Management)** **Technical specifications:**	CMC should be an intelligent monitoring system with an Ethernet 10BaseT network connection. The priorities of the various functions are monitoring, controlling and documenting physical parameters inside the Mini Data Center. These functions should be managed and controlled via different protocols. The basis of the CMC should be the processing unit (PU unit). Several input/output units (I/O unit) should be connected to one processing unit via a patch cable. This/these function module(s) should connect to the sensors via a standard plug connector. The sensors should be coded so that the function blocks recognise automatically which sensors are connected. • Network interface: IEEE 802.3 10/100BaseT Full Duplex • Basic protocols: TCP/IP, SNMP V1.0, Telnet, FTP, http Additional features: NTP, SSH, SSL, DHCP

11.	Early Fire Detection and Extinguishing Systems	(i) Delivery of an active extinguishing system that detects and extinguishes fires in closed server and network cabinets. (ii)High-performance fan must extract air samples for smoke analysis into the system's measuring chamber. The integrated extinguishing system must trigger if the concentration of smoke exceeds the limits. The extinguishing process must not be electrically conducting and must be fast and residue-free. NOVEC 1230 must be employed as the extinguishing gas. Unit will be 19" mountable. (iii)The installation and removal of the pre-assembled equipment must be carried out without interruption to the protected system's operations. The fire system, Cooling system, IPPDU, Monitoring system. Racks have to be from one OEM for better SLA.
12.	Installation & Training	(i) Installation of the Mini Data Center and the relevant components has to be carried out by qualified technicians. (ii)01 days onsite training to the user will be given by the vendor.
13.	Certification	Regulatory Standard, ISO 9001, 14001, 18001 and UL Listed, ROHS
14.	UPS System	Required 10 Kva UPS (N+N) redundancy with 60 Minutes back on common battery bank, UPS Will be mount in smart rack and batteries will be mount in separate rack.

3. Smart Rack (Optional)*

Specification of Modular Data Center – Single Smart Rack Solution with total 7 KW cooling capacity (N+N) and UPS System 10 KVA (N+N) with 6Hrs. backup.		
Sl No	Specification	Description of Items
1.	Modular Design	(i) The Mini Data Center (42HU x 1Nos) suitable for free standing installation. (ii) Provisioning of Mini Data Center for further extension.
2.	Dimension (HXWXD) in mm	42U x 1 Nos.- 1000 mm Wide x 2000mm Height x 1200mm Deep. Rack should have base frame of 100mm height for stability. Load bearing capacity of rack frame should be 1400 Kgs. Rack should made of CRCA sheet steel with minimum nine folded frame with 1.5 mm thickness. Top cover and bottom cover should have cable entry provision. Rack front and rear door should have PU gasket. Each rack should have 2 Nos. vertical and 4 Nos. horizontal cable manager. Each rack should have 10 Nos. tool less banking frames of 1U size. Required 7 KW cooling capacity with redundancy N+N redundancy in inclusive of both the racks. Racks should have rodent repellent. Rack front door should have electronic key pad system. Rack rear door should be equipped with auto opening system. Rack should have air baffle plate. Racks should have water leak sensor. Rack should have provision to mount the cooling system inside in vertical form without consuming any u space. Rack, cooling system, fire system and monitoring system (at least 3 main component) required from one OEM for better services. Each rack with minimum 37U usable space.

4.	**Access Control**	(i)The Front door of Mini Data Center should be fitted with High Security Electro-mechanical code combination lock & Rear with auto door opening system,
5.	**Cooling System** • Cooling output range 5 – 7kW • Cooling noise level 80 dB (A) • Voltage 230/1/50 V/Ph/Hz • External unit • Refrigerant R 407C • Injection pipe • Suction pipe • Cooling operating range -16/43°C	**Outdoor climate control with Inverter technology** Harmonized modular components should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of latest technology and for the R 407C refrigerant. Cooling unit mount should be mount vertical to provide the uniform air flow inside the rack, Unit should not take any U space. **The system should include:** (i) 2x Heat exchanger (evaporator)for placing on the inside of the system. (ii) 2x Condensor external unit works with R407C refrigerant. (iii) DX control box to activate the evaporator (iv) LCD display, digital temperature display between 18 and 29°C. Cooling system should not occupy any U space in the rack. (v) Cooling system mount in vertical form to provide the uniform air flow.
6.	**Electrical Power Distribution System**	(i)Provisioning of structured power distribution system. The 3-Phase commercial conditioned 440V/50Hz power supply will be made available by the user at the Distribution panel along with MCCB. (ii)This Main Distribution panel will be used to distribute power to all power consuming devices used in Mini Data Center such as: UPS, Air-Conditioning system.
8.	**Power Distribution Units for Racks**	Vertical PDU for Racks with 20 Nos C13 & 4 Nos of C19 Sockets with industrial socket 32A.
9.	**Monitoring**	Provisioning of IP based monitoring Fault signals -Temp/ Humidity, WLD, Fire system and Automatic rear Door Kit, Door access.
10.	**(Monitoring & Remote Management)** **Technical specifications:**	CMC should be an intelligent monitoring system with an Ethernet 10BaseT network connection. The priorities of the various functions are monitoring, controlling and documenting physical parameters inside the Mini Data Center. These functions should be managed and controlled via different protocols. The basis of the CMC should be the processing unit (PU unit). Several input/output units (I/O unit) should be connected to one processing unit via a patch cable. This/these function module(s) should connect to the sensors via a standard plug connector. The sensors should be coded so that the function blocks recognise automatically which sensors are connected. • Network interface: IEEE 802.3 10/100BaseT Full Duplex • Basic protocols: TCP/IP, SNMP V1.0, Telnet, FTP, http Additional features: NTP, SSH, SSL, DHCP
11.	**Early Fire Detection and Extinguishing Systems**	(i) Delivery of an active extinguishing system that detects and extinguishes fires in closed server and network cabinets. (ii)High-performance fan must extract air samples for smoke analysis into the system's measuring chamber. The integrated extinguishing system must trigger if the concentration of smoke exceeds the limits. The extinguishing process must not be electrically conducting and must be fast and residue-free. NOVEC 1230 must be employed as the extinguishing gas. Unit will be 19" mountable. (iii)The installation and removal of the pre-assembled equipment must be carried out without interruption to the protected

		system's operations. The fire system, Cooling system, IPPDU, Monitoring system. Racks have to be from one OEM for better SLA.
12.	**Installation & Training**	(i) Installation of the Mini Data Center and the relevant components has to be carried out by qualified technicians. (ii)01 days onsite training to the user will be given by the vendor.
13.	**Certification**	Regulatory Standard, ISO 9001, 14001, 18001 and UL Listed, ROHS
14.	**UPS System**	Required 10 Kva UPS (N+N) redundancy with 6 Hrs. back on common battery bank, UPS Will be mount in smart rack and batteries will be mount in separate rack.

Note: Rate of Smart Rack (Optional)* (i.e. Item No. 3) should be indicated separately along with their price in pdf format of Tender Form (Priced Bid) and the same will not be deciding factor for considering L1.

IMPORTANT TERMS

Warranty: Comprehensive **warranty for 3 years is required** from the date of commissioning on the instrument and its accessories. Additional 2 Years AMC must be quoted in the bid.

Compliance Statement: Signed statement must be submitted as per the Annex-II. It should be supported with documents or references if required.

Note: Bid should include FOR IIT (BHU), Varanasi prices (INR only)

Safety devices: Safety devices against power/vacuum/water/air/gas failures.

OTHER TERMS:

1. **Spares: S**tate availability of spares for Five years.
2. **Indian agency commission, if any:** Should be clearly stated in the financial bid in INR.
3. **Consumable & spares:** List of the consumables and spares to be supplied with the system.
4. **User List:** Provide users for last 5 years with contact person name, address, phone, and email IDs.
5. **Manuals/Documents:** 1 set of hard copy and 1 set of soft copy in English (preferred as following) of respective solution guide ability.
6. The Tender document should also indicate what kind of service/maintenance is required for the system. Whether this service has to be carried out by a company engineer or it can be carried by trained service personnel within India. The frequency of visit and the charges should be mentioned.
7. The Tender should be enclosed with proper certifications like Authorization Certificate and Proprietary Certificate in case of Proprietary items.
8. Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.
9. Installation and training should be provided free of cost otherwise clearly mentioned with justification.
10. Warranty period to be clearly mentioned and should begin from the date of installation. Annual Maintenance Contract Charges should be clearly mentioned after warranty period.
11. Guaranteed specifications to be demonstrated at the time of installation. Any necessary standard samples for that purpose should be brought by the Service Engineers.

12. Training of IIT staff in operation and maintenance is essential by OEM trained personal and provision for training for Two person for minimum Three days.
13. Submit Brochure of the Products.
14. The vendor to provide compliance statement with respect to each technical specification in thetenderdocumentdulysupportedbythemanufacturer'sliterature.Anyotherclaimwillnotbeacceptedandm ay lead to rejection of the bid.
15. Printed literature in support of compliance to the prescribed specifications is to be submitted. However, Institute reserves the right to accept or reject the compliance to the prescribed specifications given by the company in view of lack of sufficient evidence and proofs.
16. Compliance report needs to be submitted as a part of the technical bid.
17. In case during shipment period newer versions of software/hardware is available with vendor in lieu of the existing one for which Letter of Credit was opened, then improved version should be made available without any extra cost.
18. Institute reserves the right to visit installation in India of similar capabilities the details with to regard to such installation should be given as a part of technical bid.
19. Institute reserves the right to cancel the bid any time without giving any reason.
20. Technical evaluation by the Institute may include demonstration to verify functionalities and capabilities of the system quoted.

II. PRICE BID as per BOQ Format

The Bidders are required to submit their rate in the enclosed BoQ in Excel Format (.xls) as well as in PDF (.pdf) Format.

The Price quoted is firm and final with Validity as per the terms of IIT BHU, Varanasi tender Terms.

TECHNICAL COMPLIANCE STATEMENT

Tender for Supply Installation Testing and Commissioning of Private Cloud at Indian Institute of Technology (Banaras Hindu University), Varanasi

I. TECHNICAL SPECIFICATIONS

Private Cloud with HCI with 40G connectivity (Must Have)

Data Centre Facility			
S.N.	Minimum requirement description	Whether the instrument complies with the required specification (Yes / No / Better)	If no or better specification, then provide your comment accordingly
Solution Capability			
1	Hyper Converged Infrastructure (HCI) solution must integrate storage, compute, networking, hypervisor, real-time deduplication, compression, and optimization along with powerful data management, data protection, and disaster recovery capabilities in a standard x86 server. The entire HCI Solution comprising of hardware and software must be managed, support and maintained as single system as a Turn-key Solution.		
2	Each Server Node should be in a "2U Rack".		
3	The proposed HCI appliance nodes should provide 40G connectivity. Each node should be offered minimum 4 x 10GbE SFP+ Ports or better. Dedicated out of band management port must be provided in each node.		
4	Proposed HCI solution should be software defined with deduplication and compression. The HCI solution should support scaling hyperconverged node under a single cluster.		
5	The HCI software should pool all HDDs in the cluster to present a single storage resource pool in the cluster. The HCI solution should support both hybrid and All-Flash nodes options for future scalibility.		
6	The HCI should be proposed with All Flash/SSD.		
7	The proposed HCI appliance solution should be Software defined with required Software or Hardware engine to enable Software Defined Storage		
Cluster Capability			
8	The solution should support minimum 16 nodes in a same cluster/ deployment and each node shall be able to access the storage of all nodes in the cluster.		
9	The solution shall provide the ability to rapidly on-board new hosts or removal of hosts without any disruption or downtime to the cluster/solution		
10	The proposed solution must have capability to support nodes with same and different CPU & Memory		

	configurations in the same cluster.		
11	The proposed solution scale storage and compute as and when needed without any downtime as and when needed.		
High Availability Features			
12	Converged nodes should provide boot/OS drive or OEM better solution. Boot disk should be in addition to capacity and cache disks.		
13	Each node shall be provided with Redundant cards (10Gbps) for no single point of failure.		
14	The proposed HCI solution must have mechanism for Metadata protection within the cluster so as to provide high availability and no single point of failure.		
15	The solution shall provide zero downtime host patching with maintenance mode to move running workloads to other hosts on the platform without impacting the running VM's.		
16	Each HCI Appliance node must have Redundant Hot Plug High Efficiency Power Supply with N+N configuration along with Redundant Hot Plug High Speed Cooling Fans.		
Backup Features			
17	Backup & data protection functionality shall be integral feature of Hyper-Converge. Offered solution shall be able to copy the backup file along with metadata to different cluster as a native feature of backup and restore.		
18	Native storage/VM level snapshots or Space efficient full backups with minimal impact to guest performance or using any additional storage capacity.		
Security Features			
19	The solution should support security compliance for proposed HCI solution to ensure highly secure HCI environment.		
20	The proposed solution should be able to provide Data-At Rest-Encryption for additional data security. The proposed solution should be offered with Local key management solution and shall be certified to work with external key management solutions		
21	The proposed encyrption solution should be at-least FIPS 140-2 Level 1 validated enterprise-class encryption solution.		
22	Solution shall provide Hardware root of trust. System should support remote out of band management chip creating a fingerprint in the silicon, preventing servers from booting up unless the firmware matches the fingerprint. This feature should be immutable		
23	Solution should maintain repository for firmware and drivers recipes to aid rollback or patching of compromised firmware. Should also store Factory Recovery recipe preloaded to rollback to factory tested secured firmware		
Storage and Data Protection Features			

24	The solution shall provide hyperconverged software that allows delivery of enterprise-class storage services using latest x86 server infrastructures without dependence on a separate Storage Area Network & associated components such as SAN Switches & HBAs.		
25	The HCI solution should provide Inline Deduplication & compression across all storage tiers. Any license & hardware resource required to achieve this functionality should be included with the proposed solution.		
26	All licenses should be included with the solution for Maximum Memory & Storage capacity expansion. The HCI storage should be a scale-out distributed storage. The HCI software should pool all HDDs from all the nodes in the cluster to present a single storage resource pool to all server nodes in the cluster.		
27	Data efficiency shall be handled at data granularity of 4KB or 8KB data blocks. In case vendor are using the chunk size of more than 8KB, then vendor shall do sizing after adding 20% additional capacity (CPU, memory and storage capacity) on the top of base capacity as asked in the rfp.		
28	The solution should automatically rebalance data to maintain balanced utilization of storage across the HCI nodes.		
29	The Solution should support Instant space optimized point-in-time Snapshots/backups. Should allow for taking snapshots/backups of individual Virtual Machines to be able to revert back to an older state, if required. The Solution should allow for taking clones of individual Virtual Machines for faster provisioning. The HCI solution should have integrated wizard to schedule snapshot/clones/backups for hourly/weekly/monthly policies. Any additional software and license required should be provided on day 1.		
30	HCI Solution should include Redundant Interconnect switches to support low latency East-West traffic between HCI Nodes. Each switch should provide minimum 24 optical ports with redundant power supplies and cooling fans. Each Switch should provided 8*10Gps SFP+ ports or Bandwidth for uplink connectivity to external LAN/Network switch.		
Management Features			
31	Monitoring and analytics engine shall be tightly integrated with offered Hypervisor layer. Vendor shall provide the highest slab licenses of multiple clusters management.		
32	Monitoring and integration tool shall have in-built mechanism with back-end support team for automatic support case logging of defined error conditions.		
33	Monitoring and integration tool shall have capability to identify the top VMs which are contributing towards maximum IOs and space consumption.		

34	Proposed solution must be able to support the following Global Management features, single administrator to manage all aspects of the Hyper-convergence from within the Virtualization Manager for all sites.		
35	Remote management features, Platform must provide management through a web based /remote GUI console. Platform should support LDAP Active Directory integration.		
36	The solution should have automated call home capability for remote log collection and proactive support in the event of critical server failure.		
Minimum Configuration			
37	HCI cluster should have minimum 3 Node. Each node must be offered with 36 cores and 400GB memory. This must be usable cores & memory and all overheads must be added additionally considering deduplication and compression as always ON feature.		
38	Cluster to provide 30TB usable storage capacity with RF2 / FTT1 (2 Copies of Data) or better for data protection without considering any data saving technique like (erasure coding, de-duplication, compression etc) using SSD/Flash drives or better drives. Solution shall be able to withstand one Node failure.		
39	Each server node in the cluster to be provided with 2 No. of Nvidia T4 GPU cards. Required licenses for Nvidia Virtual Compute server should also be added along with support.		
40	If additional resources required by Data Centre Facility solution (including Storage Services, HCI features, third party/additional software's) then it should be factored additionally and provisioned into solution from day 1. All bidders are requested to share OEM published documentation for overhead consideration.		
Virtualization			
41	Virtualization software shall provide a Virtualization layer that sits directly on the bare metal server hardware with no dependence on a general purpose OS for greater reliability and security. Virtualization software should allow for hot addition of vCPU, memory, disk without any downtime.		
42	Virtualization software shall allow heterogeneous support for guest Operating systems like Windows client, Windows Server, Linux (at least Red Hat, SUSE, Ubuntu, CentOS).		
43	Virtualization software should have Integration of 3rd party endpoint security to secure the virtual machines with offloaded antivirus, antimalware, firewall and hips solutions without the need for agents inside the virtual machines.		
44	Solution should provide all benefits like High Availability, Dynamic allocation of resources and migration of Virtual Machines from one physical server to another.		
45	Migration of VMs in case one server fails all the Virtual machines running on that server shall be able to migrate to another physical server running same virtualization		

	software.		
46	Solution should include VM Management software. Provided Software shall also be able to manage any existing or upcoming VM inventory running on the same Hypervisor. Proposed license shall be able to manage more than 16 Nodes. The VM Management Software should run on the provided HCI cluster.		
Management -Automation & Orchestration			
47	The solution should support Single click non-disruptive rolling upgrades of HCI software and system firmwares. The solution should Track, report, and view trends for metrics like CPU, memory, IOPs, latency etc.		
48	Hyper-converge solution should have single upgrade management console to simplify upgrade of Hyper-converge Software, hypervisor and ability to roll back back upgrades.		
49	The proposed solution should support tool to provision server using RESTful API to discover and deploy servers at scale. Provision one to many servers using own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell		
Automation & Orchestration **(Solution should support below functionalities , Commercials to be quoted optional for Point 50-52)**			
50	Orchestration tool should have functionality to provide Infrastructure as a Service (IaaS). It should have workflow designer and policy drived infrastructure automation. It should be able to create orchestration task and workflow rapidly. Tool must support multi vendor physical and virtual infrastructure.		
51	Orchestration tool should provide functionality of Self Service Portal which should create service catalog for consumption by users/department. Tool should be able to show resource consumption / utilization report. Admin should be able to view request from end User / Group admin.		
52	Orchestration tool should provide secured and isolated multi tenancy. Tool should be able to define application / service blueprints and publish these as catalogs for the tenants to consume.		
Support and Licenses			
53	3 years OEM Support for proposed Hardware & Software.		
54	The Data Centre Facility should be created and run as a turn-key solution housed in a self-cooled smart rack of 42 U size with necessary online UPS Powerback-up for 6 Hours on full load with N+1 redundancy. Complete infrastructure MUST be run by a Resident Engineer on-campus at the host institute with 24x7x365x5 up-time and with complete technical and administrative support and operations on the Data Centre Facility.		

2. Smart Rack – (Must Have)

Sl No	Specification	Description of Items	Whether the instrument complies with the required specification (Yes / No / Better)	If no or better specification, then provide your comment accordingly
Specification of Modular Data Center – Single Smart Rack Solution with total 7 KW cooling capacity (N+N) and UPS System 10 KVA (N+N) with 60 Minutes backup.			
1.	**Modular Design**	(i) The Mini Data Center (42HU x 1Nos) suitable for free standing installation. (ii) Provisioning of Mini Data Center for further extension.		
2.	**Dimension (HXWXD) in mm**	42U x 1 Nos.- 1000 mm Wide x 2000mm Height x 1200mm Deep. Rack should have base frame of 100mm height for stability. Load bearing capacity of rack frame should be 1400 Kgs. Rack should made of CRCA sheet steel with minimum nine folded frame with 1.5 mm thickness. Top cover and bottom cover should have cable entry provision. Rack front and rear door should have PU gasket. Each rack should have 2 Nos. vertical and 4 Nos. horizontal cable manager. Each rack should have 10 Nos. tool less banking frames of 1U size. Required 7 KW cooling capacity with redundancy N+N redundancy in inclusive of both the racks. Racks should have rodent repellent. Rack front door should have electronic key pad system. Rack rear door should be equipped with auto opening system. Rack should have air baffle plate. Racks should have water leak sensor. Rack should have provision to mount the cooling system inside in vertical form without consuming any u space. Rack, cooling system, fire system and monitoring system (at least 3 main component) required from one OEM for better services. Each rack with minimum 37U usable space.		
4.	**Access Control**	(i)The Front door of Mini Data Center should be fitted with High Security		

		Electro-mechanical code combination lock & Rear with auto door opening system,		
5.	**Cooling System** • Cooling output range 5 – 7kW • Cooling noise level 80 dB (A) • Voltage 230/1/50 V/Ph/Hz • External unit • Refrigerant R 407C • Injection pipe • Suction pipe • Cooling operating range -16/43°C	**Outdoor climate control with Inverter technology** Harmonized modular components should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of latest technology and for the R 407C refrigerant. Cooling unit mount should be mount vertical to provide the uniform air flow inside the rack, Unit should not take any U space. **The system should include:** **(iv)** 2x Heat exchanger (evaporator) for placing on the inside of the system. **(v)** 2x Condensor external unit works with R407C refrigerant. **(vi)** DX control box to activate the evaporator **(iv)** LCD display, digital temperature display between 18 and 29°C. **(v)** Cooling system should not occupy any U space in the rack. **(vi)** Cooling system mount in vertical form to provide the uniform air flow.		
6.	**Electrical Power Distribution System**	(i)Provisioning of structured power distribution system. The 3-Phase commercial conditioned 440V/50Hz power supply will be made available by the user at the Distribution panel along with MCCB. (ii)This Main Distribution panel will be used to distribute power to all power consuming devices used in Mini Data Center such as: UPS, Air-Conditioning system.		
8.	**Power Distribution Units for Racks**	Vertical PDU for Racks with 20 Nos. C13 & 4 Nos of C19 Sockets with industrial socket 32A.		
9.	**Monitoring**	Provisioning of IP based monitoring Fault signals -Temp/ Humidity, WLD, Fire system and Automatic rear Door Kit, Door access.		
10.	**(Monitoring & Remote Management)** **Technical specifications:**	CMC should be an intelligent monitoring system with an Ethernet 10BaseT network connection. The priorities of the various functions are monitoring, controlling and documenting physical parameters inside the Mini Data Center. These functions should be managed and controlled via different protocols. The basis of the CMC should be the		

		processing unit (PU unit). Several input/output units (I/O unit) should be connected to one processing unit via a patch cable. This/these function module(s) should connect to the sensors via a standard plug connector. The sensors should be coded so that the function blocks recognise automatically which sensors are connected. • Network interface: IEEE 802.3 10/100BaseT Full Duplex • Basic protocols: TCP/IP, SNMP V1.0, Telnet, FTP, http Additional features: NTP, SSH, SSL, DHCP		
11.	**Early Fire Detection and Extinguishing Systems**	(i) Delivery of an active extinguishing system that detects and extinguishes fires in closed server and network cabinets. (ii)High-performance fan must extract air samples for smoke analysis into the system's measuring chamber. The integrated extinguishing system must trigger if the concentration of smoke exceeds the limits. The extinguishing process must not be electrically conducting and must be fast and residue-free. NOVEC 1230 must be employed as the extinguishing gas. Unit will be 19" mountable. (iii)The installation and removal of the pre-assembled equipment must be carried out without interruption to the protected system's operations. The fire system, Cooling system, IPPDU, Monitoring system. Racks have to be from one OEM for better SLA.		
12.	**Installation & Training**	(i) Installation of the Mini Data Center and the relevant components has to be carried out by qualified technicians. (ii)01 days onsite training to the user will be given by the vendor.		
13.	**Certification**	Regulatory Standard, ISO 9001, 14001, 18001 and UL Listed, ROHS		
14.	**UPS System**	Required 10 Kva UPS (N+N) redundancy with 60 Minutes back on common battery bank, UPS Will be mount in smart rack and batteries will be mount in separate rack.		

3. Smart Rack (Optional)

Sl No	Specification	Description of Items	Whether the instrument complies with the required specification (Yes / No / Better)	If no or better specification, then provide your comment accordingly
Specification of Modular Data Center – Single Smart Rack Solution with total 7 KW cooling capacity (N+N) and UPS System 10 KVA (N+N) with 6Hrs. backup.			
1.	**Modular Design**	(i) The Mini Data Center (42HU x 1Nos) suitable for free standing installation. (ii) Provisioning of Mini Data Center for further extension.		
2.	**Dimension (HXWXD) in mm**	42U x 1 Nos.- 1000 mm Wide x 2000mm Height x 1200mm Deep. Rack should have base frame of 100mm height for stability. Load bearing capacity of rack frame should be 1400 Kgs. Rack should made of CRCA sheet steel with minimum nine folded frame with 1.5 mm thickness. Top cover and bottom cover should have cable entry provision. Rack front and rear door should have PU gasket. Each rack should have 2 Nos. vertical and 4 Nos. horizontal cable manager. Each rack should have 10 Nos. tool less banking frames of 1U size. Required 7 KW cooling capacity with redundancy N+N redundancy in inclusive of both the racks. Racks should have rodent repellent. Rack front door should have electronic key pad system. Rack rear door should be equipped with auto opening system. Rack should have air baffle plate. Racks should have water leak sensor. Rack should have provision to mount the cooling system inside in vertical form without consuming any u space. Rack, cooling system, fire system and monitoring system (at least 3 main component) required from one OEM for better services. Each rack with minimum 37U usable space.		
4.	**Access Control**	(i)The Front door of Mini Data Center should be fitted with High Security Electro-mechanical code combination		

		lock & Rear with auto door opening system,		
5.	**Cooling System** • Cooling output range 5 – 7kW • Cooling noise level 80 dB (A) • Voltage 230/1/50 V/Ph/Hz • External unit • Refrigerant R 407C • Injection pipe • Suction pipe • Cooling operating range - 16/43°C	**Outdoor climate control with Inverter technology** Harmonized modular components should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of latest technology and for the R 407C refrigerant. Cooling unit mount should be mount vertical to provide the uniform air flow inside the rack, Unit should not take any U space. **The system should include:** (i) 2x Heat exchanger (evaporator)for placing on the inside of the system. (ii) 2x Condensor external unit works with R407C refrigerant. (iii) DX control box to activate the evaporator (iv) LCD display, digital temperature display between 18 and 29°C. Cooling system should not occupy any U space in the rack. (v) Cooling system mount in vertical form to provide the uniform air flow.		
6.	**Electrical Power Distribution System**	(i)Provisioning of structured power distribution system. The 3-Phase commercial conditioned 440V/50Hz power supply will be made available by the user at the Distribution panel along with MCCB. (ii)This Main Distribution panel will be used to distribute power to all power consuming devices used in Mini Data Center such as: UPS, Air-Conditioning system.		
8.	**Power Distribution Units for Racks**	Vertical PDU for Racks with 20 Nos C13 & 4 Nos of C19 Sockets with industrial socket 32A.		
9.	**Monitoring**	Provisioning of IP based monitoring Fault signals -Temp/ Humidity, WLD, Fire system and Automatic rear Door Kit, Door access.		
10.	**(Monitoring & Remote Management)** **Technical specifications:**	CMC should be an intelligent monitoring system with an Ethernet 10BaseT network connection. The priorities of the various functions are monitoring, controlling and documenting physical parameters inside the Mini Data Center. These functions should be managed and controlled via different protocols.		

		The basis of the CMC should be the processing unit (PU unit). Several input/output units (I/O unit) should be connected to one processing unit via a patch cable. This/these function module(s) should connect to the sensors via a standard plug connector. The sensors should be coded so that the function blocks recognise automatically which sensors are connected. • Network interface: IEEE 802.3 10/100BaseT Full Duplex • Basic protocols: TCP/IP, SNMP V1.0, Telnet, FTP, http Additional features: NTP, SSH, SSL, DHCP		
11.	**Early Fire Detection and Extinguishing Systems**	(i) Delivery of an active extinguishing system that detects and extinguishes fires in closed server and network cabinets. (ii)High-performance fan must extract air samples for smoke analysis into the system's measuring chamber. The integrated extinguishing system must trigger if the concentration of smoke exceeds the limits. The extinguishing process must not be electrically conducting and must be fast and residue-free. NOVEC 1230 must be employed as the extinguishing gas. Unit will be 19" mountable. (iii)The installation and removal of the pre-assembled equipment must be carried out without interruption to the protected system's operations. The fire system, Cooling system, IPPDU, Monitoring system. Racks have to be from one OEM for better SLA.		
12.	**Installation & Training**	(i) Installation of the Mini Data Center and the relevant components has to be carried out by qualified technicians. (ii) 01 days onsite training to the user will be given by the vendor.		
13.	**Certification**	Regulatory Standard, ISO 9001, 14001, 18001 and UL Listed, ROHS		
14.	**UPS System**	Required 10 Kva UPS (N+N) redundancy with 6 Hrs. back on common battery bank, UPS Will be mount in smart rack and batteries will be mount in separate rack.		

Date : ....   Signature of the Authorised Official with Seal

Bill of Material

S.No.	Product	Functional Requirement Mandate	Make	Minimum Quantity
1	HCI Nodes	Must Have		3
2	Hypervisor and Software Defined Storage Licenses along with Management Software (Socket based perpetual)	Must Have		6
3	Smart Rack 42 U with Air-conditioning unit, Monitoring system, Electromagnetic handle with keypad on door, 10KVA UPS with battery bank for 60 minutes, electric power distribution panels for Main power and UPS	Must Have		1
4	Smart Rack 42 U with Air-conditioning unit, Monitoring system, Electromagnetic handle with keypad on door, 10KVA UPS with battery bank for 6 hrs, electric power distribution panels for Main power and UPS	Optional		1
5	Additional 2 Years Warranty for the Proposed Solution	Optional		1 Set
6	Automation & Orchestration Licenses (Perpetual) (S No 50-52)	Optional		1 Set

SECTION 9

PREVIOUS SIMILAR ORDER EXECUTED

Please quote best minimum prices applicable for a premier Educational and Research Institution. The party must give details of purchase orders identical or similar equipment supplied to any IITs/NITs/Govt. Office/PSU/University/Autonomous Body as per below Format in last Three years (to be enclosed in Price Bid / Commercial Bid) along with the final price paid and details are mandatory.

Name of the Firm _____

Order placed by (Full address of Purchaser)	Order No. and Date	Description and quantity of ordered equipment	Value of Order	Date of completion of delivery as per contract	Remarks indicating reasons for late delivery, if any and justification for price difference of their supply order & those quoted to us	Has the Equipment being installed satisfactorily (Attach a Certificate from the Purchaser/ Consigner)	Contact Person along with Telephone No., Fax No. and e-mail address.

(Kindly enclose the scan copy of aforementioned purchase orders)

Details of Technical Expert

Name of application specialist/Service Engineer who have the technical competency to handle and support the quoted product during the warranty period.		
Name of the organization	**Name of Contact Person**	**Contact No.**

Signature and Seal of the Manufacturer / Bidder _____

Place : _____

Date : _____

Online Bid Submission:

The Online bids (complete in all respect) must be uploaded online in **two** Envelops as explained below:

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	**Document**	**Content**	**FileTypes**
1.	Technical Bid	Technical Compliance Sheet (Annexure II)	.PDF
2.		Organization Declaration Sheet	.PDF
3.		Checklist, Tender Acceptance, Tender Form, Annexure I etc.	
4.		List of organizations/clients where the same products have been supplied (in last three years) along with their contact number(s). (Annexure-III)	.PDF
5.		Technical supporting documents in support of all claims made at Annexure-I	.PDF
6.		EMD and Tender fee submission proof	.PDF
7.		Brochure of quoted product	.PDF
8.		All Other Documents, if any which are not covered above	.PDF
Envelope – 2			
Sl. No.	**Document**	**Content**	
1.	Financial Bid*	Price bid Form should be submitted in PDF format.	.PDF
2.		BoQ in .xls Format	.XLS
3.		BoQ in .pdf Format	.PDF

*In case of any discrepancy in BoQ submitted in .XLS format and in duly signed .PDF format, the price submitted in duly signed .PDF format will be considered as final.