



॥ सा विद्या या विमुक्तये ॥
ಭಾರತೀಯ ತಂತ್ರಜ್ಞಾನ ಸಂಸ್ಥೆ ಧಾರವಾಡ
भारतीय प्रौद्योगिकी संस्थान धारवाड
Indian Institute of Technology Dharwad

Survey no's: 678 to 740/3, Chikkamalligewad,
Kelageri Village, Dharwad-580008.

Tender for providing Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

Tender no: IITDH/IPS/EE/2023-24/002



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Tender no.: IITDH/IPS/EE/2023-24/002

SECTION -I-NOTICE INVITING TENDER

Name of the work:	Tender for providing Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.	
Type of Tender:	Open Tender Enquiry	
Estimate Value:	Rs.40 lakhs approx.	
Cost of tender documents	Free of cost	
EMD:	1.5% of Estimated cost (Rs.59,540/-).	
Issue of tender:	25 th September, 2023.	
Last date for submission of tender:	Date: 16 th October, 2023. Time: 10:00 AM	
<u>Two Bid System:</u> - The two-bid system will be followed for this tender. In this system bidder must submit their offer in separate sealed envelopes as – Technical Bid and Financial Bid. Separate technical bid and financial bid envelopes should be clearly marked as "Envelope No. 1 - Technical Bid" and "Envelope No. 2 - Financial Bid". Both these sealed covers are to be put in a bigger cover which should also be sealed and duly super-scribed with our Tender No. & Due Date and to be submitted to the concern department/section mentioned in tender document. Note: The technical offer should not contain any price information. If the price quoted is submitted in technical bid, the tender will be rejected at the sole discretion of IIT Dharwad. Initially Technical Bids will be opened and evaluated by the works committee. Financial bids of only Technically qualified bidders will be opened later. Contract/ Work Order will be awarded to the lowest bidder (L1) identified.		
Covers Information / Submission of Bids		
Cover No.	Cover Type	Description
1	Technical	EMD, Technical Specification, Tender Document, Schedule of Requirement and Compliance, Bidders Information/Indian Agent Information, Previous Work Orders etc.
2	Financial	Financial Bid
Opening of technical bid:	Date: 16 th October,2023 Time: 10:30 AM	
	Schedule for opening of Financial Bid will be notified only to the bidders qualifying the Technical Bid. Presence of the bidder or his/her authorized representative at the time of opening of the Commercial bid is highly preferable.	
Contacting Authority:	The Executive Engineer (EE-IPS) Near High Court, P B Road Dharwad-580008. E-mail: ee.ips@iitdh.ac.in . Telephone: 91-836-2212-839	



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SECTION-II

FORWARDING LETTER

(To be submitted on firm/contractor's letterhead)

No.....

Date:.....

To
The Executive Engineer,
Indian Institute of Technology Dharwad,
Near High Court, P.B. Road,
Dharwad-580008.

Dear Sir,

Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

With reference to your Notice for AMC for 24X7 basis operation and maintenance of HVAC and VRV installations, I am / we are pleased to offer myself / ourselves for undertaking above work in your esteemed organization. In submission of this offer, we confirm that

- i) We have not made any misleading or false representation in the forms, statements, and attachments in proof of the qualification requirements.
- ii) We do not have records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
- iii) Business has never been banned by the Central / State Government Department/ Public Sector Undertaking or Enterprise of Central / State Government.
- iv) We have submitted all the supporting documents and furnished the relevant details as per prescribed format.
- v) The information and documents submitted with the tender by us are correct and we are fully responsible for the correctness of the information and documents submitted by us.

Yours faithfully,

(Signature of the authorized person of the firm/contractor with office seal).



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Section -III

Application form

PART-1 (BASIC INFORMATION)

1	Name of the Contractor / Firm / Organization / Company.	
2	Official Address for Correspondence with Telephone & Mobile Nos.	
3	Correspondence address with contact person's name, telephone number, mobile number etc. (The company should have office and service facilities in Karnataka)	
4	Type of Firm / Organization, whether proprietorship, partnership or private limited company etc.	
5	Year of establishment	
6	Name of the Proprietor / Partners /Directors in Organization	a) b) c) d)
7	a) Details of Registration (Firm, Company etc) i. Registering Authority ii. Date iii. Number b) Details of Labor license i. Registering Authority ii. Reg No. iii. Date of issue iv. Date of expiry.	To be filled by the vendors



	<p>c) Details of Electrical license</p> <p>i. Registering Authority</p> <p>ii. Reg No.</p> <p>iii. Date of issue.</p> <p>iv. Date of expiry.</p> <p>(Copies to be enclosed).</p>	
8	<p>a) Details of Income Tax Permanent Account Number (PAN No.) .</p> <p>b) Details of TIN No.</p> <p>c) Details of EPF No.</p> <p>d) Details of ESI No.</p> <p>e) Details of GST No. (enclose a copy of the certificate competent Authority)</p>	To be filled by the vendors
9	<p>Annual turnover of the firm for last three years (in Rs. Lakhs)</p> <p>(Furnish copies of Balance Sheet and Profit & Loss Account)</p>	<p>a) For F.Y. 2022-23:</p> <p>b) For F.Y. 2021-22:</p> <p>c) For F.Y. 2020-21:</p>
10	<p>Whether registered / empaneled with any of the Govt., Semi Govt., MES, IIT, NIT, IISc, Govt. Undertaking, Public Sectors etc. as approved contractors and if so, furnish details.</p>	
11	<p>Whether any technical personnel are employed with the Firm / Organization and if so, give details of their experience, qualification</p>	
12	<p>If involved in any litigation earlier with any organization. If so, please submit the details.</p>	
13	<p>Any civil suits pending in any of the works executed. If so, furnish details.</p>	

Signature of the Contractor / Authorized person on behalf of the Firm / Organization



PART-II EXPERIENCE

Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

A) List of similar works / contracts executed by the contractor / Firm / Organization During the last 5 years prior to last month ending to the date of application issued.

Sr.No.	Name of the work	Name & Address of the Company for whom the work was executed	Nature / Type of the work	Name, Address & mobile/phone No. of Officer / Person under whom the work was carried out	Value of the work executed (Rs)	Duration of the Contract with commencement and completion date
1						
2						
3						
4						
5						

Note: Copies of the work orders and performance certificate should be enclosed



B) List of similar works / contracts being executed presently by the contractor / Firm / Organization

Sr.No.	Name of the work	Name & Address of the Company for whom the work was executed	Nature / Type of the work	Name, Address & mobile/phone No. of Officer / Person under whom the work was carried out	Estimated value of the work (Rs)	Duration of the Contract with commencement and expected date of completion
1						
2						
3						
4						
5						

Note: Copies of the work orders should be enclosed

**Signature of the contractor /
Authorized person on behalf of
the Firm / Organization**

SECTION-IV	General Conditions of Contract
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TENDER DOCUMENT

Tender for providing Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

NAME OF THE TENDERER:

ADDRESS: -----

Last date of submission of the tender: On or before **16.10.2023** by **10:00 Hrs.**

TECHNICAL BID

VOLUME-I

Tender for providing Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

Tender no.: IITDH/IPS/EE/2021-22/002

GENERAL CONDITIONS OF CONTRACT

Sealed tenders are hereby invited on behalf of the Indian Institute of Technology, (IIT) Dharwad, for providing Tender for providing Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities.

Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities for a period of One year to IIT Dharwad Permanent Campus, Karnataka.

2.QUALIFICATION CRITERIA:

Only those bidders fulfilling the following Eligibility Criteria should participate in the tender: -

- 2.1 The contractor should have a valid OEM Certified HVAC Authorization certificate Bidders must be in the business of providing AMC in respect of HVAC Installation and maintenance works in the past 5 years or more (i.e., the firm must be in the business since September 2018 or earlier, The Experience of Split Air condition works installation shall not be considered, the experience of Operations and Maintenance of 1000 Tr and above HVAC installations only will be considered exclusively).The Bidder should have his registered office within 500 Km range in and around IIT Dharwad.
- 2.2 The Bidder must have carried similar AMC work as per following range in reputed organizations /IITs/IIMs/Govt. offices/PSUs/Central-Universities/ etc. during a period of last 5 years (i.e., Work orders issued before during October 2018 till date). Completion certificates/work done certificates etc. to this effect are required to be enclosed. The contractor should have successfully executed similar works (ie. Operation and Maintenance and installation of 1000 Tr and above water chilling HVAC units) during last 5 years (ie. till the last date of month before the date of application issued) as under:

- a. If Total value of three completed/ ongoing and similar annual works of 40% estimated value of this contract (**i.e., Rs.16 lakh**) (OR)
- b. If Total value of two completed/ ongoing and similar annual works of 60% estimated value of this contract (**i.e., Rs.23.81 lakh**) (OR)
- c. If Total value of one completed/ongoing and similar annual work of 80% estimated value of this contract (**i.e., Rs.31.75 lakh**).

The Total value of all work orders in any one year in previous five years shall be considered for assessment of eligibility in this category.

2.3A Certificate/Undertaking on the letter head of the Company to the effect that the bidder has not been blacklisted anywhere in India or abroad by any organization. A self-certification to this effect is required to be enclosed.

2.4The Bidder should be registered with concerned statutory authorities for GST/Income Tax etc. The bidder should furnish relevant GST registration documents and

2.5PAN/TAN copies along with the bank details of the firm.

Any prospective bidder, not satisfying any of the above-mentioned qualification criteria shall be disqualified on technical grounds and the price bid of such disqualified bidder will not be considered for this tender.

3. Tender documents can be obtained from IIT Dharwad

website: http://www.iitdh.ac.in/announcements_worktenders.php

4. Tenders are invited under Open Tender Enquiry and two bid system for Annual Maintenance Contract for Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities. Technical Bid along-with supporting documents, Earnest Money Deposit (if applicable) (in form of DD/Bankers Cheque in favor of **The Registrar, IIT Dharwad** payable @ Dharwad) shall be submitted in separate sealed envelopes and then encased inside one sealed envelope super scribed 'Annual Maintenance Contract for Operations and

Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities'. for a period of one year to IIT Dharwad Permanent campus.' All the pages of this tender document along with necessary Appendices (as applicable) duly signed and stamped, will form the technical bid.

5. The bidder must submit the following documents/information within the Technical Bid (all 6 criteria to be mandatorily fulfilled for technical qualification):

- a. The entire tender document duly signed on each page.
- b. Copy of the valid PAN Card, Goods & Sales Tax Registration be forwarded.
- c. Proof of establishment of company/business for a period of more than 5 years.
- d. Completion certificates by the Bidder for Annual Electrical AMC work in reputed organizations/IITs/IIMs/PSUs/ Central universities/escom/KPTCL etc. during a period of last 5 years (as per the qualification criteria limits).
- e. A Certificate/undertaking on the letter head of the company to the effect that the bidder/ manufacturer had not been blacklisted anywhere in India or abroad by any organization.
- f. In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate explicitly mentioning nature of operation shall be forwarded in addition.

6. The Price Bid as per **Annexure-2** with this tender document, should be duly filled, stamped, and signed by the authorized signatory of the agency/firm/company and sealed in a separate envelope super scribing 'Financial Bid for Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities'. for a period of one year to IIT Dharwad Permanent campus, survey no's: 678 to 740/3, Chikkamalligewad, Kelageri Village, Dharwad-580008.

7. The Technical bid and the Price bid shall be sealed in one envelope super scribing 'Annual Maintenance Contract for Operations and Maintenance of 2000 Tr District Cooling HVAC chiller system along with associated components and 150 HP VRV System connected facilities including complaint management of all facilities. for a period of one years to IIT Dharwad Permanent campus, survey no's: 678 to 740/3, Chikkamalligewad, Kelageri Village, Dharwad-580008.

8. The technical bids shall be opened as per schedule placed at Notice Inviting

Tender (NIT). The vendors who are short listed after qualifying technical bid evaluation will be intimated the date of opening of price bids subsequently through proper means. IIT Dharwad reserves the right to reject any or all the tenders/bids without assigning any reason thereof.

9. Tenders are to be submitted in a serially numbered & bounded manner. The tender should be submitted in the **tender box by the tenderer kept in Office of Executive Engineer up to 10:00 AM** on or before last date and time of bid submission as mentioned in Notice Inviting Tender (NIT) and will be opened by **Executive Engineer** or his authorized representatives in his office / any other place in the Institute on date and time of tender opening as mentioned in NIT, in the presence of such tenderers who desire to attend.

10. Tenders should be addressed to **“The Executive Engineer, Indian Institute of Technology Dharwad, Near High Court, PB Road Dharwad 580011”**. The name of the tenderer and the name of the work must be noted on the above.

11. Income Tax PAN number & GST registration number is to be submitted along-with the bid.

12. The tenderers should write in figures as well as in words for the rates quoted by them on the proper form of the tender. All corrections / over writings must be attested by the dated initials of the contractor. The tenderer is advised to avoid offering discount /rebate in the covering page or at the end of the schedule. Instead, the same can be incorporated in the unit rate by reducing the unit rates. If at all offered, the discount / rebate percentage offered is to be written in words such as Five percent / point Five percent etc.

13. The rates quoted shall be inclusive of all taxes, royalties etc. The contractor shall quote for all the items whose rates are asked and not leave any blanks all taxes including GST shall be borne by the contractor.

14. The offer should be valid for 90 days from the date of opening for the purpose of issue of acceptance letter. The amount quoted herein after referred to as Base rate must be firm and inclusive of all charges of any kind and inclusive of any kind of liability from / to any authority. GST shall be mentioned separately and must not form part of base price. There will be no extra payment or payment of escalation in the amount under any circumstances whatsoever. Statutory taxes will be deducted

at source from the payment against the bill amount.

15. No extra item or substitute item shall be allowed out without prior approval in writing.

16. Work must be carried out in consultation with the representative as authorized by IIT Dharwad.

17. The tenderer should submit the requisite interest free Earnest Money Deposit (EMD, if applicable) by pay order or Demand Draft in favor of **The Registrar, IIT Dharwad**. Tenders not accompanied by the Earnest Money Deposit shall not be considered. The EMD of unsuccessful tenderers will be returned within one month of award of work. In case EMD exemption is sought under SME/MSME/NSIC, Valid certificate from MSME explicitly mentioning the tender work herein, is required to be submitted.

18. The full value of Earnest Money Deposit is to be absolutely forfeited to the Director, IIT Dharwad or his authorized representative, with prejudice to any other rights or remedies to the Director, IIT Dharwad or his authorized representative, if the contractor fails to commence the work within 15 days continuously from the schedule date of commencement specified.

19. The Earnest money deposit paid at the time of tender, will be released after payment of final bill.

20. No part of the contract shall be sublet without written permission of IIT Dharwad nor shall transfer be made to power of Attorney authorizing others to receive payment on contractor's behalf.

21. IIT Dharwad reserves the right to reject any tender or all the tenders without assigning any reason therefore.

22. The Contractor shall comply with the provisions of all Acts, Statutes, Rules, Regulations etc. of the Central and State Government as the case may be that may apply to his case and if necessary, get himself duly registered as required by the said Acts, Statutes, Rules, Regulations etc.

23. The contractor for the work shall be liable to pay applicable tax (including Taxes

on works contract to state Government) if any that may be levied by the State or Union Government. Any request contrary to this will not be accepted.

Note:

- The details furnished shall be for the maintenance jobs & not for the installation works. The contractor must have experience in operation & maintenance of HVAC and VRV Systems.
- The track record of the contractor should be clean and he should not have any involvement in any illegal activities or frauds.

24. Period of ASMC: Initially for a period of one year from the date of award of work order and further extendable up to two year based on performance. The period of AMC may be extended for another two years subject to the satisfactory performance of the contractor.

25. Terms of payment: As per the measurements at site and on certification of Junior Engineer- Electrical, IIT Dharwad.

- a) The contractor shall submit his monthly bill along with monthly muster sheet & written approvals. Kindly note that the monthly bills for work done under AMC must be submitted by 5th day of next month (i.e., for the work done in September 2023, the bills must be submitted on or before 5th October 2023 along with the details of payment of wages to the respective manpower bank accounts, Receipts of payment of PF and ESI). Submission of delayed bills may lead to imposition of penalty @ 0.5% of bill value for each delayed week.
- b) The payment shall be released through NEFT/RTGS payment system only in the bank account of the contractor after necessary deduction of statutory dues.
- c) TDS and other Statutory taxes shall be deducted at the source from the monthly bills.
- d) Security Deposit of 5 % shall be deducted from Monthly bills and shall be paid on the completion of contract period successfully.

26.It shall be open to the Institute to abandon or give up at any stage of the construction of any of the said works or any part thereof. In the event of such abandonment or giving up or in the event of termination of the agreement, the Contractor shall be paid up to the work performed by then.

27. Deviation, Extra Items & Approvals for Pricing:

In case of execution of any extra items(s), apart from the BOQ, contractor must intimate the office of Dean (IPS) to obtain prior sanction for carrying out the work along with the quantities & rates. Thereafter, the contractor may submit the bills as per the usual practice of submission of RA bills.

DEVIATION LIMIT FOR THE CONTRACT ITEMS IS 100%.

In case of contract items which exceed the limit of 100%, the contractor must intimate the office of Dean (IPS) to obtain prior sanction for carrying out the work along with the quantities & rates. Thereafter, the contractor may submit the bills as per the usual practice of submission of RA bills.

28. Termination of contract: If the Contractor fails to perform any of its obligations under this agreement or if Institute is dissatisfied with the services of the Contractor, Institute may issue seven days' written notice intimating the Contractor of their failures or deficiencies and calling upon Contractor to rectify within such time as may be specified in the notice and if the Contractor fails to perform such obligation or make good such deficiencies as pointed out to the Contractor in the notice, Institute may terminate the services of Contractor under this agreement. Institute may also terminate the Contract hereunder:

- i) if the firm is adjudged bankrupt or
- ii) if they make a general assignment for the benefit of their creditors or
- iii) if a receiver is appointed on account of their insolvency or
- iv) they disregard law, ordinances, rules, regulations, or orders of any public authority having jurisdiction on the works.

The termination shall be without prejudice to all rights, liabilities and remedies that have arisen or accrued till date of such termination or that may arise on account of such termination and Institute may get the project completed by whatever method they may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment, if due, until the loss, damage or expense incurred by Institute due to breach of this agreement by Contractor have

been settled.

In case the Contractor abandons the work during the project, the Institute has the right to appoint an alternate Contractor or arrange for carrying out the work of Contractor, at the risk and cost of the Contractor. Traveling / daily allowances shall not be payable to the Contractor, its representatives, officials, and consultants engaged by it for their visit to construction site, offices of local authorities, Employer's office, or any other place in Dharwad.

The scope of work broadly described herein and assigned to Contractor, as their area of responsibility is inclusive of all consultancy and other services required in connection with the completion of work whether specifically mentioned herein or not and rendering such consultancy services will not entitle the Contractor to charge any additional fees in as much as the same are included in the overall professional fees payable to them.

- 29. Liquidated Damages Clause:** If any delay in execution of the works is attributable to the acts or omissions and commissions of Contractor Institute shall be entitled to recover liquidated damages at the rate of 0.5% of the total fees per week of delay limited to maximum of 10% of the total actual fees payable.
- 30. Professional indemnity:** Contractor warrants that it shall exercise high degree of care and diligence in rendering the services pursuant to this agreement and that; such services shall be of a quality and standard satisfactory to Institute. The Contractor shall indemnify Institute from any damage or loss arising from such lack of care and diligence or arising out of any unsatisfactory performance of service by Contractor. The contractor is required to obtain a Contractor All Risk (CAR) policy for successful and safe completion of project. Contractor shall provide a copy of this policy to Institute showing that such insurance has been taken and being maintained and that all the premium thereon has been paid. A certified copy of such insurance policy shall be deposited with Institute.
- 31. Dispute Settlement:** In case of any dispute or difference arise between the parties during the progress of or after construction of this contract or touching or relating either to the said buildings or works, or to any other matter or thing arising directly or indirectly under this contract, then and in such an event the same shall be referred to Director, IIT Dharwad as the SOLE ARBITRATOR who shall alone consider and determine the same, whose decision / award shall

be binding and conclusive upon both the said parties and this clause shall be deemed a submission within the meaning of Arbitration and Conciliation Act 1996 or Statutory modification or re-enactment thereof. It is specifically agreed that the Contractor shall continue to render its services provided herein with all the due diligence, professional skill and tact notwithstanding that any matter, question, or dispute has been referred to arbitration. The venue of Arbitration proceedings shall be Dharwad. It is further agreed between the parties as hereto that the Dharwad Courts alone shall have the exclusive jurisdiction.

32. Site: The contractor shall remove all surplus materials, debris etc. out of the IIT Campus from the site of work on completion work and will hand over the site clean before the bill is processed for final payment. Dismantled materials if any (declared by Engineer-in-charge of the work) shall be returned to the Estate/ Electrical stores by the contractor at his own cost. The disposal of material shall be done in environmentally friendly way and complying with the local rules and regulations.

33. Security:

a. Movement of contractor's materials:

Any materials which are removed from the site of work and are required to be taken out from the IIT campus, the contractor should follow the following procedure:

The contractor shall apply in writing to the Engineer- in-charge the details of the materials to be removed including which are rejected etc. This application shall be endorsed by the engineer in charge or his authorized representatives. The materials shall only be allowed to go out of IIT campus after counter signature of the security officer and checked at the gate. No materials/tools will be allowed to be brought on holidays/Saturdays/Sundays inside the campus. Contractors can bring the materials/tools/between 0900 hours and 1700 hours on any working day (Monday to Friday). This may please be noted.

b. Search:

Thorough search of all persons and transport shall be carried out at each gate and for as many times as gate is used for entry or exit and may also be carried out at any time or any number of times at the works site within the restricted area.

c. Working Hours:

The units controlling restricted areas usually work during five days in the week and remain closed on Saturday and Sundays. The working hours available to contractor’s labor and staff are however appreciably reduced because of the time of entry and exit during working hours. The exact working hours, working days and non-working days observed for the restricted areas where works are to be carried out shall be deemed to have been ascertained by the contractor before submitting the tender. The tenderer’s attention is invited to the fact that the total number of working hours for units are prescribed in regulations and no work beyond the prescribed working hours shall be permitted.

d. Entry and Exit:

The contractor, his agents, representatives, workmen, etc. and his materials, carts, trucks, or other means of transport, etc. will be allowed to enter through and leave from only such gate or gates and at such times as the concerned authorized in charge of the restricted area may, at their sole discretion, permit. Contractor’s authorized representatives, if required, are to be present at the places of entry and exit for the purpose of identifying his carts, trucks, etc. to the personnel in charge of the security of the restricted area.

e. Labour Law:

The work will be executed strictly following the Labour Laws of Central Govt & State Govt as may be applicable.

34. Manpower

Deployment:

S.No	Manpower	Shifts (Timings)	Working Days in a week
1.	Shift-in-charge	in all the 2 Shifts (ie. from 6:00 am to 2:00 pm, 2:00 pm to 10:00 pm)	All days in a week
2.	Shift Assistant	in all the 2 Shifts (ie. from 6:00 am to 2:00 pm, 2:00 pm to 10:00 pm)	All days in a week
3.	Unskilled	in General Shift (ie. from 9:00 am to 5:30 pm)	6 days in a week

The contractor shall provide minimum one-day duty off once in a week for the employees working in shifts and shall provide relievers for the employees on off duty / sick / leave. However, in case of exigencies, the contractor shall provide services beyond above mentioned hours.

The contractor should deploy experienced manpower to carry out operations and maintenance of 2000 Tr HVAC System and 150 HP VRV System as under:

- Shift -in-charge should be a “Minimum Diploma in Electrical/Mechanical Engineering having minimum 3 years of experience in maintaining and operation of HVAC” OR “ITI Electrical/Mechanical Trade Holder having minimum 6 years of experience in maintaining and operation of Electrical”.
- HVAC Shift Assistant should be an ITI Electrical/ Mechanical Holder having minimum 3 years of experience in operation and Maintenance of 1000 Tr and above District Cooling system and Centralized VRV Systems.
- Unskilled manpower shall not be under the age of 18 Years.

The IIT Dharwad shall not permit double shift for any staff employed by the contractor.

Contractor should provide Uniforms, Shoes, safety & protection gear, Identity Cards, working tools etc. to the staff deployed, at no extra cost beyond the provisions of tender.

Log book and complaint books, all stationery like registers, sheets, markers, pens and pencils etc. will be supplied by the contractor and no extra payment for these shall be made. Log book format must be approved by IIT Dharwad Engineer- in- charge.

No work shall be partially or fully stopped for want of personnel or tools or instruments. If such an event occurs, the fine will be levied.

- Contractor will ensure consistency of work and work force, correct troubleshooting, good workmanship, follow all safety procedures and will make all necessary efforts to maintain a healthy environment and reliable services.
- If any of the staff members appointed by Contractor is found to be ‘not competent’, he has to be replaced by a right person within a stipulated time as given by Engineer in charge, IIT Dharwad.

- All the relevant documents pertaining to staff deployed, like copies of job appointment order with the contractor, address proof, photocopy of ID card etc. and any other details as sought shall be provided to IIT Dharwad, by the contractor under his responsibility for the correctness.
- Wages of the staff deployed should not be less than as that mentioned in Minimum Wage Act applicable to the respective category/experience, as on date. The ESI, PF, gratuity, bonus etc., labor law, other rules & norms requirements as found required for contracts of this nature should be met. The same details shall be submitted along with a tender bid.
- In no case, the contractor or his/her employees shall claim job / employment with IIT Dharwad. No transport facility shall be provided for the contractor's employees by IIT Dharwad.
- In case of delay, repetition of work, noncompliance, and inadequate staff etc. fine will be imposed as per the fine clause mentioned.
- Safety aspects in work places have to be followed as per relevant standards & codes. Any accident or damage to death will be treated as negligence & it is purely the responsibility of contractor. IIT Dharwad is not responsible for any accidents or damages to death. Safety of all the staff under this contract is the sole responsibility of the contractor.
- Contractor is responsible for the behavior & conduct of his workmen and hence they should be properly educated and controlled.

‘FINE’ CLAUSE:

The Availability & functioning of HVAC and VRV Systems is very essential and critical. Non-availability may result in many tangible & intangible losses in research work, equipment, Occupants etc.

Hence all the work routine, servicing, breakdown maintenance has to be carried out

in accordance with all standards and statutory norms with minimum time and maximum accuracy to ensure maximum availability. Failure in meeting the above requirements will attract the 'fine' clause as below.

Contractor should depute experienced personnel to carry out maintenance work both low & high side in such a way that the repetition of the problem should be avoided.

Absenteeism: No absenteeism shall be allowed. In case of absence of any staff in the agreed staff pattern, fine will be imposed at one and half times the rate for the day the staff remains absent.

Non-Compliance of work: In the event of failure of compliance of awarded work in stipulated time a fine will be imposed as per double of actual expenditure incurred in attending the same by another agency.

IIT Dharwad concerned engineers will be authorized to deduct the amount from the contractor bill or security deposit or initiate any other action as found suitable.

Contractor must visit the site, understand the site condition, type of work involved, quantum of work etc., for carrying out works, before quoting.

General

- All the removed materials for routine maintenance works should be brought to the office for accountability and a separate register needs to be maintained showing all received/used electrical consumables supplied by IIT Dharwad. No materials should be left anywhere in the campus.
- All the general & special tools for daily operation, tackles, chain pulley blocks etc., required for proper maintenance and repairs/break down etc., shall be arranged by the contractor at his own cost and issued to the staff deployed by him for this work. Following calibrated, well-maintained instruments should always be available at site:
 - Clamp meter - 2 No
 - Insulation Tester - 1 No
 - Earth Electrode Tester - 1No.
 - Following tools should always be available at site;

- Two sets of all sizes double end open spanner & Ring Spanners
 - Two nos. adjustable wrenches each.
 - Three set of Allen keys (2 set metric & 1 set inch)
 - Screw driver set (normal & star) - 3 set
 - Hack saw cutting sets with spare blades - 2 sets
 - Pliers -2No.s
 - Air Blowers - 2 No
 - Electrician Tools Kit-2 Sets
 - Following maintenance materials should always be available at site;
 - HT & LT insulation tapes, Waste cotton, Lugs (up to 16 sq.mm), Cable Ties, Screws, distilled water (50 Ltrs) for batteries etc. to be provided at no extra cost.
- All breakdown calls/complaints received during normal working hours should be attended to as early as possible. No complaints should be left unattended and not be postponed to next day.
- Any damage is caused to any equipment or items available at the office premises due to negligence of the contractor's work force shall be entirely on contractor, the amount so involved on this account shall be deducted from the payment due to contractor.

Documents to be maintained by the contractor: -

- Log book of daily events
- Complaints registers
- Planning and scheduling of preventive maintenance
- Reports of preventive maintenance done
- Daily breakdown maintenance/status reports
- Reports of testing/checking done
- Reports of modification done
- Attendance sheet.
- Details of plant record book

Details of work

- 1) To maintain the 2000 Tr HVAC chiller plant and 150 HP VRV systems at individual facilities and units, Associated Ahu's (Air handling units), Ducting Networks, Air Balancing, Control Systems, dampers at individual buildings,

including complaint management etc. installed at all utility areas within the campus and the buildings, flats, etc. and to Operate and Maintain water pumps at IIT Dharwad.

- 2) The contractor/ Site in charge posted should attend and available in the IIT Dharwad campus to attend the work 24x7 on all days (if in case any person goes on leave qualified alternate person shall be report only after handover of the charge of duty The on-duty person shall be relived).
- 3) HVAC installation means Chiller units, Circulation Pumps, Feed pumps, Cooling towers, AHU's, Dampers, Ducting network, Chilled water Pipe lines and return lines, connected control panels etc.
- 4) It will be the duty of the contractor to see that HVAC Units and VRV units are operated regularly; exhaust fans of ventilation system and machineries are operated smoothly.
- 5) The contractor will monitor power supply voltage regularly. It will be the duty of the contractor to see that the Chiller units which is under AMC (Annual Maintenance Contract) is maintained in excellent condition and switch on the chiller units and ventilation units as and when the power supply fails or on other demands and ensure continuous supply of air round the clock.
- 6) The contractor should ensure that all the fans and electrical fittings need to be cleaned regularly at least once in a month.
- 7) The contractor possessing authorization from OEM for HVAC/VRV and having enough work experience shall employ necessary number of qualified, healthy, and talented electricians to attend all the above-mentioned electrical works (as per qualification stated in the BOQ) should be made available to undertake the electrical maintenance work. A copy of their certificates with originals may be produced in this office for verification.
- 8) The contractor shall provide tools necessary for the work and no work should be left un- attended for want of tools.
- 9) The contractor has the responsibility to provide all safety garments, equipment's, tools etc.to his staff or the persons dealing with work.
- 10) The Contractor shall ensure that all fittings are working properly and all items required for replacement will be provided by the office as and when required. For items needed for replacement, the Contractor shall furnish the requirement to the Office of IIT Dharwad for making necessary provisions. The item replaced shall be returned to the stores (Issue) section of the Institute.
- 11) Maintaining a register for all activities detailing date, time, item description, quantity complaints diagnosis, time of completion of work etc. This register will be daily shown to the authorized staff of IIT Dharwad and countersigned to

- acknowledge the activities attended to reflect daily progress.
- 12) The contractor shall ensure that all energy efficient appliances, spare parts should be replaced as per the standards of approved make/ brand by PWD, KPTCL or ESCOM such as BIS, BEE, ISI, IEEE, ISO etc.
 - 13) The Contractor shall ensure the type of works to be taken place in IIT Dharwad campus on visiting the Site and must Prepare the quotation based on site inspection only.
 - 14) The work of the Contractor will be supervised by the authorized representative Junior Engineer- MEP of IIT Dharwad.
 - 15) Instruments: Earth tester, Tong tester, Megger for insulation resistance measurements, Lux meter, Temperature gun (for remote recording) to be kept at site office all time.
 - 16) The power factor of the installation must be maintained / monitored daily and monthly as per the statutory requirements of KPTCL / HESCOM.
 - 17) Due to negligence of operator if any, “the power factor” goes below 0.9 lag during the month, P.F. penalty will be imposed and recovered from the monthly maintenance bill (as per rate of Electricity Board.)
 - 18) The operating / Supervisor staff shall possess the Knowledge of firefighting and first aid.
 - 19) The operating/supervisor personnel shall have the basic Knowledge and technical skill of the HVAC / VRV equipment and shall be capable of independently carrying out the emergency repair works on generator/ AMF panel.
 - 20) All the accessories, equipment comprising of batteries, battery chargers. Control panel, switch boards shall be operated and maintained by the agency.
 - 21) The contractor / operator / supervisory personnel shall have a clear working Knowledge of the various HVAC circuits and shall not meddle / alter the electrical circuits without the permission of the Engineer in charge.

Scope of Work

1. The Operation and Maintenance envisage all the required tasks to ensure
 - Maximum system availability.
 - Most efficient, effective, and optimum usage of electrical system.
 - Enhance the life expectancy of equipment.
 - Regular operation and maintenance of equipment.
 - Compliance with safety rules and regulations.
 - Preventive maintenance / scheduled maintenance.
 - Break down maintenance.
 - Maintaining uninterrupted power supply.
 - Maintenance of proper records of operation and maintenance (Logbook, Registers, checklist, etc., shall be approved by IITDh)
 - Assistance to IITDh in expansions and modification.

Contractor shall deploy a HVAC engineer with minimum 15 years of experience in the relevant field shall be deployed once in a month to inspect the HVAC installations at our campus at no extra cost. It is his responsibility to ensure to check and give proper checklists for all regular preventive maintenance and certify that they are carried out accordingly. He should also train the personnel employed for the purpose on regular basis to ensure quality work is done at site. Monthly bill without site visit, certification of attendance of personnel and verification of checklist and experts report will not be processed for payment. The expert is also required to visit IIT Dharwad as and when required in addition to monthly visit at no extra cost to attend emergency duties and to manage the crisis/ to troubleshoot the problems and advise IIT Dharwad technically.

Contractor shall supply 3KW strip heaters, AHU Belts of suitable size or any other item that may be required for functioning of the HVAC system on item rate contract basis as per the requirement at site with intimation/prior approval of IIT Dharwad officials. However, IIT Dharwad will pay for the supplied items as per

work order rates for standard items and Nonstandard items (ie. not mentioned in the tender/work order) based on rate analysis submitted and accepted by IIT Dharwad.

Note: Bidders are advised to visit the site for verification of the complete system.

Daily operation / monitoring, scheduled annual preventive / routine & predictive maintenance, breakdown maintenance including repair of entire existing HVAC Central Plant system in the campus working on chilled water and VRV/VRF system. The Central plant system has water cooled screw chillers, Centralized programmable logic control system, Primary chilled water pumps, secondary chilled water pumps, Double skin air handling units, Ductable fan coil units, chilled water supply & return lines, AHU / FCU, air supply & return ducts, grills, diffusers, dampers, control & protection system. Work shall be carried out by continuous deployment of competent, experienced & trained staff members at site. This is a continuous mode operation & maintenance. All emergencies at all times to be attended without fail.

All fabrication works, minor repairs, servicing of machines / equipment's / parts therein (or arrangement for the same) within the purview (entire AC system) of this contract, shall have to be carried out by the contractor within specified time.

If the contractor fails to carry out the assigned or entrusted work, the department shall get the work done by engaging any other agency and twice the cost incurred shall be recovered from the AMC contractor.

The entire existing AC system (working on chilled water) is covered under the scope of this AMC. Any additions and alterations made in the system (whether by the contractor or by any other agency or by IIT Dharwad), up to an extent of 10% of existing installed AHU & FCU capacities are covered under the scope of this contract for operation & maintenance.

All the equipment/installations shall always be kept in good and trouble free operating conditions. All the required record for break-downs/repairs and maintenance etc. shall be maintained in the form of history books and logbooks etc. as per directions. All the maintenance works shall be carried out in accordance with the manufacturer's specifications and instructions of the engineer in charge.

2. Technical and general specifications

✓ Tools & Tackles:

- All Consumables for tools and tackles required for the safe and satisfactory operation and maintenance including preventive and breakdown maintenance of the substation and related equipment will be handled by the "contractor".
- The careful maintenance and management of these tools will be the responsibility of the agency.
- Any Specialized tools that would be required for safe maintenance of the substation will be provided by IIT Dharwad.
- Following calibrated, well-maintained instruments should always be available at site;
 - Clamp multimeter - 2 No
 - Anemometer - 2 No
 - Digital thermo & RH meter (Hand Held) - 3 No.s Mercury thermometer – 2 No.s
 - Pressure GaugesFollowing tools should always be available at site;

- Complete Set Tools for Testing /Repair of Splat ACs
- Two sets of all sizes double end open spanner
- Two nos. adjustable wrenches each.
- Three set of allen keys (2 set metric & 1 set inch)
- Screw driver set (normal & star) - 3 set
- Hack saw cutting sets with spare blades - 2 sets
- Suitable bearing puller - 2 No
- Vacuum & blow air cleaner - 2 No

- Water pump, 1 ph. 1HP
- High Pressure Jet Washer -1No

Following maintenance materials should always be available at site:

Grease, Gum, Waste cotton, Chemicals to clean fins & Filters, Insulation Tape, etc to be provided at no extra cost.

DAILY:

- Daily operation of chillers, Primary & Secondary Pumps, AHUs, VRV systems, Split ACs, etc.
- Parameters of chillers, Pumps, etc shall be checked and recorded AHUs as recommended by respective manufactures in the LOG BOOK (provided by the firm/agency /contractor) on shift basis. Necessary action is to be taken if the reading is not normal.
- To check all electrical motors and their bearing for abnormal noise/heating and to take necessary action if found abnormal
- To check water level in the makeup water tank on terrace and check functioning of float valve.
- To drain out water and clean the AC plat room/ /AHU's etc as and when required/scheduled
- The temperature of each room shall be measured for any corrective action and these are to be recorded in LOG BOOK
- To keep machine rooms equipments such as chilling plant area. AHU's exhausts neat and clean including their room floor, wall, ceiling etc in an orderly manner.
- Check for any complaints that are reported and trouble shoot them immediately.
- AC system of the important & critical facilities are to be continuously monitored and corrective actions are to be taken immediately so as not to affect the facility concerned
- If any important activities like seminars / lectures / meetings / interviews are planned in the campus, concerned AC system has to be inspected and normal functioning of AC system is to be ensured.

- Adjustments in the system to achieve required temperature & RH level as required by the user. Release of air locks / blocks in the system.
- Reporting of day's work and progress to concerned Engineer-in-charge.
- Inspection of HVAC electrical panels.
- Monitoring of BMS system
- Monitoring of Freezers & Refrigerators on hourly basis.
- Any other work required for the equipment for proper functioning
- Coordinating with OEM for attending and rectifying the problems

WEEKLY:

- To check the alignment/looseness of all the belt driven equipment and rectify if required
- To check water inside the makeup tank for hardness/dirty and fill with soften water if required
- Clean of grills and diffusers.
- Entire AHU room to be thoroughly cleaned with vacuum cleaner & to be made clean & dust free.
- Check alignment of pumps, motors and rectify if required
- Check heater bank condition and rectify if any problem exists.
- Check the fan belts for proper tension, and replace if necessary, and examine the fans for correct alignment, lubricate the bearing as required.

MONTHLY:

- To check the gland /seal, coupling of pumps.
- To check the solenoid valve, safety controls mechanical, Electrical/ Electronics and inter-locking of the various equipment.
- To check all AHU ducts/insulation/proper positioning/damage and rectifying the same where ever required.
- Checking the performance of AHUs.

QUARTERLY:

- To check and lubricant (if required) the bearing of the pumps/motors and keep the proper record.
- The check the foundation bolts of the pumps / motors and to take the necessary action if required.
- Check the quantity of Air flow from various out lets in each room/ Area as per drawings and do adjustment of dampers etc as and when required
- Check the performance of each equipment of HVAC plant for proper functioning Inspect connection for any water leaks in the coil and connection. Check the tightness of hose,
- fittings & tighten if necessary. There should not be any flooding of water from the AHU.
- Check and clean drain pan, condensate drain pipe and floor drains to ensure no choking and flooding.
- Cleaning of strainers, cooling coils, fins and filters, etc.
- Inspect the conditions of the thermometers and pressure gauges for proper function.
- Check and re-tighten any loose bolts and nuts in proper sequence.
- Inspect the condition of insulation materials and rectify if necessary.
- Coordinating with OEM for preventive maintenance activities.

YEARLY:

- Perform quarterly services
- Overall servicing of the unit, cleaning, reduction of noise level, checking of mechanical assemblies, foam insulators over the pipes.
- De-scaling of copper tubes of the cooling coil (the water circuit) by suitable means as per manufacturer's recommendation and general standards. Procedural details for this work are enclosed.
- Parameter checking before & after servicing
- Air flow checking & adjustment / balancing, if required
- Checking of IR value for motor and heater banks.

- Checking and calibration of temperature and pressure gauges on supply & return chilled water lines and replacement of the same if required.
- Checking of unit efficiency, total capacity delivery of the unit & bringing it to optimum performance level, air flow and water temperature measurements on supply & return ends, maintaining the lab temperature and temperature & RH adjustments.
- Cleaning of ducting system having diffusers, grills, dampers etc.
- Necessary documentation of parameters (before & after servicing work) and submission of checklist.

3. Maintenance

This Maintenance scope (includes both preventive and breakdown maintenance) is indicative only and shall include other maintenance activities required for satisfactory operation. Preventive Maintenance shall be routinely carried out as per the details provided.

Breakdown maintenance shall be provided as and when the situation warrants a failure/fault in the system. The breakdown maintenance shall be attended to at the highest priority to make good the faulted system and put it into operation. For breakdown maintenance, the contractor shall coordinate/liaison with the **“Engineer in Charge”** and the original equipment manufacturer for the replacement of parts and services as necessary. During the preventive (routine) maintenance, the contractor shall carry out the following as listed for various system components:

Though the list contains several individual jobs they could be executed in a combined scope as in the servicing or overhauling of the component.

6.20 House Keeping Work

- Sweeping the entire floor area of the Control room, battery room, Auxiliary room, office room of sub-station once a day in the morning and again as and when required or called for including dusting the carpets.

- Wet mopping the entire floor area of the Control room, battery room, Auxiliary room, office room of sub-station once a day in the morning with disinfectants and deodorants and again as and when required.
- Cleaning of general toilets/washbasins with disinfectants at least two times a day and again as and when called for.
- Dusting and cleaning of doors, windows, furniture, fixtures, glass partitions, electrical fixtures and other equipment's like computer cubicles, table tops, chairs, overhead storage units, side racks, drawer boxes, filing racks, cupboards, cabinets, paper trays, flower vases, telephones etc. with wet cloth.
- Clearing and cleaning of dust bins/waste paper baskets once a day in the morning.
- Washing and cleaning of drinking water glasses, cleaning of water purifiers, once a day in the morning.
- Filling up of clean potable water in the water filters once a day or as and when required.
- Spraying of room perfumes whenever required and as directed.
- Sweeping and wet mopping of staircases and cleaning of stair case handrails at least twice a day and again as and when required.
- Sweeping of the entire yard areas in a day and again as and when required.
- Sweeping and wet mopping of all entrance steps twice a day and again as and when required.
- Pumping of water from sump tank to overhead tank as and when required.
- The agency shall ensure continuous supply of water at all time.
- Cleaning of all light fittings, ceiling/pedestal fans, tube light fittings, air conditioners etc.
- Removing of cobwebs.
- Gardening, planting trees & Plants by the side of compound of Sub-station and watering them.
- Weed cleaning in the station yard, maintaining the jelly such that it is even throughout station yard, maintaining the station yard neatly.
- Removing of stains and spills on the table tops/floors with suitable solvents.
- Removal of moss, fungus and lichen from the building wall.
- Cleaning of rainwater drains, manholes etc.

- Cleaning of all terraces, chejjas and clearing of rainwater outlets etc
- The daily garbage shall be collected and disposed in the municipal corporation dustbin at the end of working hours.
- Scrap generated during renovation and repairs shall be stored till it amasses to a volume to remove by lorry/temp.
- The common toilet waste, pantry waste, kitchen waste etc., shall be bagged and removed at the end of the day.
- Maintaining small plants on both the side of the road in Sub-station.
- Any other work assigned by the Electrical Safety Officer from time to time.
- All cleaning material including access ladder, vacuum cleaner etc. required for carrying out the operations shall be arranged by the tenderer and also arrange for soaps, phenol, disinfectants, cleaning agents, chemicals, room freshener's etc. for the use during the operations.

Engagement terms of labour:

- i. The agreement between IIT Dharwad and the contractor shall be purely based on service agreement. The Contractor shall make his own arrangements for the engagement of the labour.
- ii. In respect of the engagement, employment, wages, transport, paying, feeding, housing, and working conditions of labour and of all matters connected therewith, the contractor shall be solely responsible and liable.
- iii. During the continuance of the Contract, the contractor shall at all times be liable to obligations imposed on him by the provisions and requirements of any Central or State Statute ordinance or other law or any Regulation or Bye-law of any local or other duly constituted authority which may be applicable including any such law regulation or order passed or made or coming into force during the period of the Contract.
- iv. The Contractor shall comply with the provision of all labour legislation including the requirements of:
 - a) The payment of Wages Act
 - b) Owner's Liability Act
 - c) Workmen's Compensation Act
 - d) Contractor Labour (Regulation & Abolition) Act 1970 and Central Rules 1971
 - e) Apprentices Act 1961
 - f) Any other Act or enactment relating thereto and rules framed there under from time to time.
- v. The successful tenderer shall keep all mandatory records like PF, ESI, Bonus etc. of his employees deployed at IIT Dharwad as per requirement of the labour enforcement inspector from time to time.

vi. The successful tenderer shall take necessary license from the Asst. Labour Commissioner and comply with the central Labour Act of 1970.

vii. The successful tenderer shall have to take necessary insurance coverage for his workmen and keep IIT Dharwad indemnified against risk. Copy of such insurance premium receipt shall be submitted to IIT Dharwad before the release of first payment.

Accidents:

The Contractor shall report within 24 hours of the occurrence of any accident or mishap at or about the Site or in connection with the execution of the work shall report such incident to IIT Dharwad. The Contractor shall also report such accident to the competent authority whenever such report is required by law.

Insurance:

Workman insurance policy in the joint name of IIT Dharwad and the Bidder should be submitted to IIT Dharwad before commencing the work. Contractors shall cover all the men and labourers, deployed by him on this work under an adequate comprehensive contractor's all risk policy, to insure Workmen and third party insurance etc.

The work is to be carried out in occupied office and laboratory premises and hence the contract shall be governed by the rules of IIT Dharwad regarding the working hours, supply & removal of materials etc. The contractor and their personnel shall not cause disturbance to the staff and research activities of IIT Dharwad

The contractor should make proper safety arrangements like safety belts and helmets, etc. for the persons working on site. Contractor shall provide individual identity card to each of his staff /worker as per the approval format. The identity card shall be carried and displayed by the person during his entire presence or working in the premises.

Evaluation Criteria:

The L-1 will be decided on the Grand Total Rate quoted for the work. All levies/taxes (i.e., GST etc.) must be clearly mentioned in the row provided for the purpose (as per format of financial bid).

However, the decision of the Competent authority will be final and binding in awarding the order. In case of any clarification required, the same can be clarified from IIT Dharwad before submission of the bids.

The bidders must also note that the quantities may vary (10% more or less). Additional items may also crop up other than the listed items as per site conditions.

Bidder Information

1.	Name of the Bidder	
2.	Address of the Bidder	
3.	PAN No.	
4.	GSTN No.	
5.	State of GST Registration	
6.	E-mail	
7.	Contact Person's Name & Designation	
8.	Mobile No.	

Signature of the Bidder with date and seal

Tender no.: IITDH/IPS/EE/2022-23/002

PRICE-BID-SCHEDULE OF WORK / BOQ / PRICE BID for O&M of HVAC

(To be quoted on the letter head of the bidder)

Sl.no	Description of Item	UOM	Quantity	Rate	Amount
<i>All the statutory charges for PF, ESI, Consumables, tools, Conveyance, Mobile Charges including Visit of Senior HVAC Expert Visit on Monthly basis including Minor repairs and incidental works.</i>					
<i>The Minimum Manpower per shift shall be (1 Senior Supervisor+1 Shift Assistant+1 Unskilled) shall be available. Two shift operations (A&B) shall be carried out on all days of the week.</i>					
1.00	Fixed charges for Annual Maintenance Contract for 2000 Tr HVAC district cooling chiller units, AHU units, duct network, chilled water lines, return water lines, cooling towers and 150 HP VRV systems including attending all complaints, scheduled maintenance, preventive maintenance, Air balancing and to attend maximum efficiency. Contractor shall ensure that air-conditioned facilities shall be maintained at design temperature as mentioned in the scope of works. However, any replacement of material/parts will be paid by IIT Dharwad at actual	Fixed charges per Month	12		
	GST @18%				
	Total of sub head including GST				

III	Grand Total in Rs.	
Grand Total in Words: _____		
		Only

Important note for quoting the rates for supply of labour/manpower:

The Price Bid is to be quoted after considering - Minimum Wages for Zone 'B,' as prescribed by Central Ministry of Labour & Employment, Govt. of India, as applicable on the date of issue of this tender. ESI, EPF & other statutory payments should not be less than what is stipulated by the statutory provisions / acts by the Central Government.

Contractor Signature & Stamp

Any bidder quoting labor wages lower than the minimum wages will be rejected and price bid will not be considered. The proof of payment of minimum wages, EPF, ESI, relieving charges (along with ESI & EPF, if applicable) etc. is required to be submitted for processing the monthly bills. The payment will not be processed in absence of documentary evidence for compliance with statutory requirements in respect of labor/manpower.

The quoted amount shall be inclusive of Basic wages +variable DA +PF+ESI+ Other allowances+ Transport allowance+ Uniform expenses+ Cost of PPE'S (Karam) + Mobile Charges +Tools+ Consumables.

The cost of uniform expenses+ Cost of PPE'S and consumables shall be considered in the service charge percentage.

Note: -

- a. The contractor shall provide minimum one-day duty off once in a week for the employees working in shifts and shall provide relievers for the employees on off duty / sick / leave. However, in case of exigencies, the contractor shall provide services beyond above mentioned hours.
- b. The IIT Dharwad shall not permit double shift for any staff employed by the contractor.
- c. The quoted rates shall be inclusive of *Minimum Wages payable as per Central Labour commission for the classification of skill set of manpower engaged*, all taxes, duties, insurance, works contract tax, sales tax, VAT etc. all inclusive.
- d. The contractor shall make the payment to personnel engaged by him as per minimum wages notified by Office of the Regional Labour Commissioner (Central) and any revision in the wages during the period of contract.
- e. The quoted rates shall be inclusive of all applicable statutory payments viz. Minimum Wages (**including revisions**), PF, ESI, Gratuity, Bonus, and necessary risk policy for covering the comprehensive risk of all employees etc.
- f. Conditional tenders shall be summarily rejected.
- g. Please note that the final **bid amount** will be considered for evaluation of tenders.
- h. Contractor shall take care of any probable revision in minimum wages during the contract period and no additional payments will be made in this regard.

- i. The contractors are advised to visit the site and thoroughly understand the nature and scope of work and be familiar with the site conditions before quoting.

Declaration: I/We do hereby accept all the terms and conditions laid down in the tender document for the above said work/supply. I/We also agree to the condition that the right to suspend the tender process or part of the process, to accept or reject any or all the tenders at any stage of the process and/or to modify the process or any part thereof at any time without assigning any reasons thereto is reserved by the Competent authority of the Institute without any obligation or liability whatsoever.

Signature of the Bidder with seal.

LIST OF APPROVED MAKE/MODEL

- 1) All material shall confirm to relevant technical specification. The material shall be further subjected to tests in the recognized laboratories at the sole discretion of the Engineer-in- Charge and shall be at contractor's cost.
- 2) Material bearing appropriate IS marking and having valid license for the last 3 years shall be given preference while selecting for the work.
- 3) In the case of material which are not widely available with IS marking in the market but confirm to the technical specification mentioned in the tender documents, the same shall be procured from any of the manufacturer listed below after prior approval of the EIC.
- 4) EIC can approve any other brand subject to verification of the adherence to the relevant technical specification.

Sl. No.	MATERIALS	MAKE /BRAND
1	Rigid FR PVC conduit Pipe and accessories	Avon plast, wireman, Nihir, precision, Polycab or equivalent
2	Copper wire /Conductor	Finolex, Polycab, RR cable, Havells, or Equivalent
3	Modular type	Mk, Legrand, anchor, Havells or equivalent
4	MCB / ELCB/ RCCB	Legrand, ABB, Hager, Schindler L&T, Indo-Asian or equivalent
5	MCCB/ ACB	Legrand, ABB, Hager, Schindler L&T, Indo-Asian or equivalent
6	Lighting fixtures & Lamps	Philips, Crompton, Wipro, Havells or equivalent
7	Ceiling fans & exhaust fan	Crompton, orient, Havells, Bajaj, Usha or Equivalent
8	Geyser	Racold, Havells, Bajaj, Usha, AO smith or Equivalent
9	PVC tape	Steel grip, anchor, Jonson or equivalent
10	Call bell	Anchor, Orpat, max or equivalent
11	Distribution board	Indo-Asian, Havells, Siemens, L&T or equivalent
12	UG 1.1kv LT cables	Finolex, Polycab, RR cable, Havells, or Equivalent
13	Air conditioners	Voltas, Daikin, Blue Star, LG or Equivalent
14	PVC casing capping and accessories	Modi, Polycab, classic
15	Motor pump set	Crompton, Kirloskar, KSB or equivalent
16	Timers	L&T, Siemens, ABB, cutler hammer or equivalent
17	Selector switch	L&T, Hpl, Cummins, Havells or equivalent
18	Cable lugs	Dowell's, Johnson, hex or equivalent
19	Cable jointing kit	Raychem, Denson, m-seal or equivalent
20	Indicating led lamp	Siemens, ABB, L&T, Wipro or equivalent
21	Protection relay	L&T, Siemens, ABB, cutler hammer or equivalent

List of consumables for 1-year period for each substation.

Sl.no.	Particulars	Quantity for Each substation for 1 Year	Sl.no.	Particulars	Quantity for Each substation for 1 Year
1	Petroleum Jelly	4 Kg	12	Waste Cloth	20 KG
2	Grease	3 Kg	13	Phenol	50 Ltrs.
3	Contact Cleaner Spray	3 Ltrs	14	Hand Wash	10 Ltrs.
4	Carbon tetra chloride CTC)	3 Ltrs.	15	Dettol Liquid	1 Ltr
5	Rust Cleaner	3 Ltrs.	16	A4 Sheets	3 Rims
6	Rubber compound/Bitumen	4 KG	17	Harpic	20 Ltrs
7	PVC insulation Tape	30 Nos.	18	Moping stick	8 Nos
8	Emery Paper	20 Sheets	19	Sanitizer	6 Ltrs
9	Distilled Water	150 Ltrs	20	Broom	15 Nos
10	Cotton Waste	15 KG	21	Pesticide for Medowing/ weed cleaning liquid	10 Ltr.
11	Muslin Cloth	25 Mtr.			

List of PPE'S for all work men.

Sl.no.	Particulars	Model No	Sl.no.	Particulars	Model No
1.00	Safety Shoes -Karam	FS 210	5.00	Hand Gloves- Karam	HS 41- 4 sets
2.00	Helmet- Karam	PN 541	6.00	Eye Gear- Karam	ES005
3.00	Mask – Karam	RFH 11+	7.00	Electrical Protection - Hand gloves Karam	
4.00	Protective work wear- Karam	PW1101 and PW2101			

Contractor Signature & Stamp

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