

Indian Institute of Information Technology, Sri City, Chittoor



Indian Institute of Information Technology, Sri City, Chittoor

TENDER NOTICE

Tender No.: IIITS/NIT/WORK/AC/2021/07

On behalf of IIIT Sri City, Chittoor, Andhra Pradesh, sealed tenders are invited from the eligible bidders as per the eligibility criteria mentioned in the tender document.

Name of work: *Supply, Installation, Testing and Commissioning of VRF/VRV Air Conditioning system in 2nd Floor of Academic block at IIIT Sri City.*

BID ISSUE DATE	March 13, 2021
PRE – BID MEETING AND SITE INSPECTION BY THE BIDDERS (if required)	March 20, 2021
LAST DATE OF BID SUBMISSION	March 31, 2021 up to 03.00 PM
DATE OF TECHNICAL BID OPENING	March 31, 2021 at 03.30 PM
DATE OF PRICE BID OPENING	To be informed to the shortlisted bidders

Date: March 13, 2021

Place: IIIT Sri City

**Sd/-
Registrar i/c**

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Detailed Notice Inviting Tender

On behalf of IIIT Sri City, Chittoor, Andhra Pradesh, sealed tender are invited from the eligible bidders as per the eligibility criteria mentioned in the tender document for “**Supply, Installation, Testing and Commissioning of VRF/VRV Air Conditioning system in 2nd Floor of Academic block at IIIT Sri City**”, complete as per the scope, specifications and direction of the IIIT Sri City.

The details are given below:

PART “A”: NIT DETAILS

1	NIT No.	IIITS/NIT/WORK/AC/2021/07
2	Name of Work	Supply, Installation, Testing and Commissioning of VRF/VRV Air Conditioning system in 2nd Floor of Academic block at IIIT Sri City
3	Earnest Money Deposit	Rs. 50,000/- by demand draft favouring “IIIT Sri City Chittoor Opex Account”.
4	Performance Bank guarantee	5% (Five Percent) of the order value (Schedule A & B) of BOQ, rounded-up to nearest Rs.10/-) to be submitted in the attached format.
5	Security Deposit	5% (Five Percent) of the order value (Schedule A & B) of BOQ shall be deducted from the bills and retained as security deposit.
6	Period of Completion	30 days from the date of receipt of Letter of Acceptance/ work order. (Excluding the comprehensive AMC period)
7	Tender documents	<i>The Interested parties may download the tender documents from web-site of IIIT Sri City http://www.iiits.ac.in/tenders/</i> Alternately, parties may collect the Tender documents from the Office of Registrar, IIIT Sri City, during working days (10.00 a.m. to 5.00 p.m.) up to one day before the last date for submission of tenders.
8	Mode of submission of tender	Hard copy in two – bid system

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9	Last date for Submission of tender	March 31, 2021 at 03:00 PM at Registrar Office, IIIT Sri City.
10	Opening of Technical Bid	March 31, 2021 at 03:30 PM at Registrar Office, IIIT Sri City.
11	Date of Price Bid Opening	To be informed to the short listed bidders
12	Technical Qualifying Criteria	As per the Eligibility Criteria and Other terms & Conditions enlisted under Part "C" of this tender,

Director, IIIT Sri City reserves the right to accept or reject any or all the Tenders without assigning any reason.

PART “B”: INSTRUCTIONS TO BIDDERS

1. The tender in two bid systems in sealed envelope shall be submitted in the office of Registrar in the prescribed format before the due date and time as mentioned in NIT. No other mode of submission is acceptable.
2. Sealing and Marking of Bids:
 - a. The Techno-Commercial bid (**Part 1**) must be sealed in a separate envelope (ENVELOPE- ONE) with Tender Fee (if any) and EMD, duly super-scribed as “Techno-Commercial Bid (Part 1), Tender No.: _____, Submission Deadline: _____”.
 - b. The Price bid (**Part 2**) should be sealed in separate envelopes (ENVELOPE-TWO), duly super-scribed as “Price Bid (Part 2) Tender No.: _____, Submission Deadline: _____”.
 - c. The above TWO separate sealed envelopes are to be put in a **bigger envelope (ENV ELOPE- THREE)**, which should also be sealed, duly super-scribed as Tender No.: _____, Submission Deadline: _____”.
3. Bid Security or Earnest Money Deposit (EMD) and Performance Security or Performance Bank Guarantee (PBG) and Validity Period:

Earnest Money Deposit (EMD)	<p>EMD of an amount of Prescribed amount must be submitted in the form of Demand Draft issued from any Nationalized/ Scheduled Bank in favour of “IIIT Sri City Chittoor Opex Account” payable at Sri City with the bid (part- 1).</p> <p>Tender received without EMD in part-1 (techno-commercial bid) will be rejected. No interest will be payable by IIIT Sri City on the Earnest Money Deposit.</p> <p>The EMD of all the unsuccessful tenderers will be returned to the respective tenderers through bank / RTGS transfer within 60 (sixty) days after placing the order / awarding the contract.</p> <p>EMD of successful bidder shall be returned after furnishing the performance security as per terms of tender. If the successful bidder fails to furnish the performance security or fails to commence the service as per the order’s terms and conditions within stipulated period, the earnest money shall be liable to be forfeited by IIIT Sri City.</p>
	The successful tenderer, on whom order will be placed, has to submit a performance security of 5%

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<p>Performance Security or Performance Bank Guarantee (PBG)</p>	<p>(Five Percent) of the order value (Part A & B of BOQ), rounded-up to nearest Rs.10/-) in the prescribed form within 7 days of receipt of Work Order/ LoA.</p> <p>Performance security shall be submitted in the form of Demand Draft or in the form of Bank guarantee from any Nationalized/Scheduled Bank in favour of the IIIT Sri City Chittoor.</p> <p>Performance security should remain valid for a period of two months beyond the date of completion of all contractual obligations of the successful tenderer.</p> <p>No interest will be payable on the Performance Security deposited. In case the contractor fails to provide satisfactory service, the Performance Security submitted by the tenderer is liable to be forfeited.</p> <p>Performance security will be returned without any interest after satisfactory completion warranty period of one year and commencement of first service of CAMC.</p>
<p>Security Deposit</p>	<p>5% (Five Percent)) of the order value (Schedule A & B of BOQ) shall be deducted from the bills and retained as security deposit.</p> <p>The said security deposit shall be returned after satisfactory completion of (Schedule-C) Comprehensive AMC period.</p> <p>This security deposit shall be forfeited if he/they fails to comply with any of the conditions of the contract. No interest shall be paid on the security deposit</p>
<p>Liquidated Damages</p>	<p>If the contractor fails to complete the work within the specified period or within the extended period, if any, liquidated damages shall be levied at the rate of 1% per week subject to a maximum of 10% of contract value (Schedule A & B of BOQ)</p>
<p>Tender Validity Period</p>	<p>The tender should be valid for 90 (Ninety) days from the date of the opening the tender.</p>

PART "C": ELIGIBILITY CRITERIA AND OTHER TERMS & CONDITIONS

1. Bidders who fulfill the following requirements shall only be eligible to apply
 - a. **Joint ventures/ Consortiums are not eligible.**
 - b. The bidder should have had average annual financial gross turnover not less than Rs.7 lakhs during the last three financial years.
 - c. **Minimum Eligibility Criteria for submission of bid documents:**

The bidder must have prior experience of having successfully completed similar works during last seven years ending last day of receipt of tenders. Without required experience party will not be considered in this tender:

 - I. Three (3) similar works completed costing not less than **Rs. 8.5 lakh** each OR
 - II. Two (2) similar works completed costing not less than **Rs.10.5 lakh** each OR
 - III. One (1) similar works completed costing not less than **Rs.16.8 lakh**

Similar work shall mean: Air-conditioning work related to VRV/VRF in any organization in India. For the purpose of bid evaluation, the value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of application for tender
2. **Performance / Work Experience:** Bidders must submit the documentary proof in support of meeting the minimum eligibility criteria in the technical bid of the tender. Simply an undertaking by the bidder for any item of the eligibility criteria shall not suffice the purpose.
3. The certified copies of all the documents as specified in NIT along with EMD details shall have to be submitted by the bidders along with technical and price bids (in two separate sealed envelopes), all enclosed in a sealed envelope in the office of The **Registrar, Indian Institute of Information Technology Sri City, Chittoor, 630, Gnan Marg, Chittoor District, Andhra Pradesh-517 646** on or before the due date of bid submission.
4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.iiits.ac.in
5. The rates quoted should be on firm and fixed basis and no variation of prices shall be entertained.

6. **Selection Procedure:**

- a. **First Stage:** The technical bids will be opened on due date and time as mentioned above. Evaluation will be done as per the submitted documents in respect to the Minimum Eligibility Criteria as mentioned as above.
 - b. **Second Stage:** The price bid will be opened only of those vendors who meet the minimum qualifying criteria in First Stage and evaluated.
7. The Tenderer will be at liberty to be present either in person or through an authorized representative at the time of opening of the Technical and Price bids.
 8. The competent authority on behalf of the Institute does not bind itself to accept the lowest or any of the bids and reserves the right to reject any or all the bids received without assigning any reasons.
 9. All bids in which any of the prescribed condition is not fulfilled or any condition including that of **conditional rebate is put forth by the bidders shall be summarily rejected.**
 10. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
 11. IIT Sri City reserves the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted. Also the Institute reserves the right to award and cancel any part-work while awarding the contract to the bidder.
 12. The bid for the works shall remain open for acceptance for a period of Ninety (90) days from the date of opening of the tender. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the institute, then IIT Sri City shall, without prejudice to any other right or remedy, be at liberty to forfeit 100% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
 13. Notice inviting Bid shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the accepting authority shall within the time stipulated date in Letter of Acceptance/ work order, sign the contract consisting of:
 - a. The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as submitted and acceptance thereof together with any correspondence leading thereto.

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14. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the bid will be rejected. It is construed that the bidder has read all the terms and conditions before submitting their offer.
15. If any information furnished by the applicant is found to be incorrect at a later stage, they shall be liable to be debarred from tendering/ taking up works in IIIT Sri City.
16. Short listing of the agencies may subject to thorough verification of their credentials and inspection of works carried out by the representatives of IIIT Sri City. The Bidder shall cooperate and arrange for such inspection of works on their own interest.
17. Execution of electrical works shall be as per tender conditions and technical specification, relevant IS and code of practice in conformity with the Indian Electricity Act, 1910 and the Indian Electricity Rules, 2005 amended up-to-date, CPWD specifications for electrical works Part -I (Internal), 2013, Part – II (External), 1994 as amended up-to-date of receipt of tender and other regulations and safety codes applicable at Sri City.
18. The bidder shall abide by all labour Acts/ Statutes prevailing including prohibition of deployment of child labour.
19. For any queries regarding tendering process, the bidders are requested to contact Project Manager, IIIT Sri City (Email: pmc.2021@iiits.in) as per details provided in the tender document.
20. Overhead Charges: The quoted price (final offer) must be F.O.R. – IIIT Sri City, including all overheads such as Packing, Forwarding, Loading/Unloading, Transporting, Postage/Courier, Octroi, Freight, and Insurance etc.
21. Additional Charges if any, for Installation, Packing-Unpacking, Loading/Unloading, Erection, Commissioning and De-commissioning, Inspection, Certification, Extended Warranty any other charge(s) must be included in the quoted amount.
22. IIIT Sri City Chittoor reserves the right to accept or reject any or all the offer either fully or partly without assigning any reasons and is not bound to accept the lowest bid since due weightage shall be given to several factors besides the financial quote
23. IIIT Sri City reserves the right to change the quantity or add the item or cancel the item/service required
24. In case of cancellation of order due to Non-compliance of the Terms and Conditions and Breach of the Contract, no compensation will be paid to the bidder towards progress of order/procurement.
25. For any dispute on this matter, the place of jurisdiction shall be Chittoor, Andhra Pradesh, India only & decision of Director, IIIT Sri City will be final

26. **ARBITRATION:** Unless otherwise specified, in all cases of disputes which cannot be settled by mutual negotiations, the disputes or differences shall finally be settled and binding on both parties by arbitration in conformity with the rules of latest Indian Arbitration Act. All disputes or differences what so ever arising between the parties out of relating to the construction, meaning and operation or effect of the general terms and conditions or the breach thereof shall be settled by Arbitration Act, and the award made in pursuance thereof shall be binding on the parties. Performance of the purchase order shall continue during arbitration and any subsequent proceedings. The Jurisdiction and Venue of arbitration shall be Chittoor district, Andhra Pradesh. The Arbitrator will be the Director, IIIT Sri City Chittoor, or his nominee.
27. **FORCE MAJURE:** If the performance of the obligation of either party is rendered commercially impossible by any of the events hereafter mentioned that party shall be under no obligation to perform the agreement, after giving notice of 15 days from the date of such an event in writing to the other party, and the events referred to are as follows:
- a) any law, statute or ordinance, order action or regulations of the Government of India,
 - b) Any kind of natural disaster, and
 - c) Strikes acts of the Public enemy, war, insurrections, riots, lockouts, sabotage.

PART "D": LIST OF DOCUMENTS TO BE ATTACHED ALONG WITH BID

Self-attested copies of the following certificates are to be attached:

- a. Certificate of experience for the value already mentioned.
- b. Certificate of Annual turn-over
- c. Certificate of Registration for GST
- d. EPF/ESI registration certificates
- e. Permanent Account Number (PAN)
- f. Registration certificate of firm (If any)
- g. Payment details towards cost of tender processing fee and EMD
- h. Certificate as Manufacturers or their authorized Dealer/Distributor of given brand of required Air-conditioner
- i. Any other documents that bidder feels necessary in support of his candidature.
- j. Schedule of Price Bid/ BOQ sealed separately and contained inside the main sealed envelope.

IMPORTANT NOTE TO BIDDERS

1. Tender documents may be downloaded from IIIT Sri City website www.iiits.ac.in
2. Tenderers can access tender documents on the website, take clear print outs without making any changes / modifications and fill them with all relevant information and submit the completed tender document in the office of the **Registrar, Indian Institute of Information Technology Sri City, Chittoor, 630, Gnan Marg, Chittoor District, Andhra Pradesh-517 646**. On or before the due date and time.
3. Tenderers shall sign and stamp official seal on all pages of the tender document including Bill of quantities.
4. Bidders are advised to visit the website frequently to find any addendum/ Corrigendum issued or extension of due date for submission, etc. No separate intimation will be issued /advertised in this regard.
5. In the event of work award, the documents submitted by the successful bidder shall be verified with the originals before the award of work.

TERMS OF PAYMENT

1. PAYMENT SCHEDULE:

A. For items under **Pat A & B** of BOQ of Bill of Quantities will be made as under duly certified by the Engineer-In-Charge of the IIIT Sri City:

- i. 50% of '**Schedule-A & B**' of BOQ towards supply of materials at site.
- ii. 25% of '**Schedule -A & B**' of BOQ towards installation.
- iii. 25% of '**Schedule-A&B**' of BOQ towards successful commissioning and handing over with all test reports and warranty certificates to IIIT Sri City.

(Note: **5% of each bill** shall be retained as security deposit, which will be released without any interest after satisfactory performance of the Comprehensive maintenance contract)

B. Payment for '**Schedule-C**' of BOQ (Comprehensive AMC) of Bill of Quantities will be made on quarterly basis after satisfactory completion of services duly certified by authorized representative of the IIIT Sri City.

2. No advance payment will be made.

3. Any payment will be released only after satisfactory completion of the work and after submission the certified bill (s) / invoice(s) as per the schedule for payment.

4. Payment will be made through on-line upon submission of bills. TDS will be deducted as per rules.

5. TAXES:

- a. Quoted rates shall be inclusive of Cartage & incidental charges excluding GST
- b. Contractor should get registered under GST and the liability of depositing tax (GST) to the concerned Department against this work will be totally on the contractor.
- c. Income Tax as applicable shall be deducted from bills paid to the contractor.
- d. Any other taxes / surcharges as per government directives shall be deducted from bill paid to the contractor from time to time.

FORM OF PERFORMANCE SECURITY (GUARANTEE) BANK GUARANTEE BOND

In consideration of the IIIT Sri City [hereinafter called "IIIT Sri City"] having offered to accept the terms and conditions of the proposed agreement between.....and (hereinafter called "the said Contractor(s)") for the work (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. (Rupees only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, (hereinafter referred to as "the Bank") hereby undertake to pay to the IIIT Sri City an amount not exceeding Rs. (Rupees..... Only) on demand by the IIIT Sri City .

2. We,..... (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the IIIT Sri City stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. (Rupees only)

3. We, the said bank further undertakes to pay the IIIT Sri City any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We, (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the IIIT Sri City under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Campus Engineer on behalf of the IIIT Sri City certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

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5. We, _____(indicate the name of the Bank) further agree with the IIIT Sri City that the IIIT Sri City shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the

powers exercisable by the IIIT Sri City against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the IIIT Sri City or any indulgence by the IIIT Sri City to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the IIIT Sri City in writing.

8. This guarantee shall be valid up tounless extended on demand by the IIIT Sri City. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged. Dated theday offor (indicate the name of the Bank)

DRAFT AGREEMENT FORMAT

THIS AGREEMENT made at IIIT Sri City on the _____ day of ____ 2021

WHEREAS The IIIT Sri City is desirous of carrying out the work of _____ at IIIT Sri City campus.

The Works are to be executed as per the scope of work, technical specifications, drawings etc. as is mentioned in the tender document.

The Contractor has agreed to execute the said works subject to the provisions hereinafter contained and subject also to General Conditions of Contract, Special conditions of contract, Safety Code, Model Rules for the protection of health and other arrangements for workers, Specifications, Preambles and Schedule of Quantities and erection & furnishing schedule (all of which are hereinafter collectively referred to as the 'said tender conditions') and strictly in accordance with the Scope of work annexed hereto at or for the respective rates set out in the Schedule of Quantities amounting to the sum as there under arrived at or such other sums as shall become payable there under (hereinafter referred to as the said tendered amount).

NOW IT IS HEREBY AGREED AS FOLLOWS: -

1. In consideration of the said tendered amount to be paid by IIIT Sri City to the Contractor at the time and in the manner set forth in the said tender conditions and in accordance with the Schedule of Payments to execute and complete the work shown upon the said Drawings strictly in accordance with the specifications and Schedule of Quantities.
2. The said tender conditions, scope of work and the annexure hereto shall be read and considered as forming part of this contract and the parties hereto shall respectfully abide by the said conditions and perform the agreement on their part respectively contained in the said conditions.
3. The approved drawings if any, notice inviting tenders' technical specification etc. shall also form the basis of this contract.
4. This contract is neither a Lumpsum Contract, nor a piece work contract, but is a contract on item rate basis to be carried out and to be paid for according to the Schedule of Payments at the rates contained in the Schedule of Quantities.
5. The contract herein contained shall comprise not only the works mentioned above but all subsidiary works connected therewith within the same site as may be ordered to be done from time to time by Campus Engineer for the time being, even if such work may not be shown on the said Drawings or described in the said Specifications and Schedule of Quantities.

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6. IIIT Sri City reserves to themselves the right of altering the drawings and the nature of the work by adding to or omitting from the scope of work any item of work or portions of the same without prejudice to this contract.
7. Time shall be considered as the essence of this contract and the Contractor hereby agrees to commence the work immediately from the date of work order and shall complete the entire work within the specified period.
8. All payments by the IIIT Sri City under this contract shall be made only at Sri City.
9. All disputes arising out of or in any way connected with this contract shall be deemed to have arisen at Sri City and court in Chittoor only shall have jurisdiction to determine the same.
10. That the contract and several parts of this contract have been read by the contractor and fully understood by him. The contractor shall not be entitled for payment beyond tendered quantities unless ordered specifically by written instructions of authorized representative of IIIT Sri City.
11. This contract shall be signed in duplicate, the original whereof shall be kept in the custody of IIIT Sri City, and the duplicate with the Contractor.

IN WITNESS WHEREOF IIIT Sri City has set his hands hereunto and two duplicates hereof through his duly authorized official and the Contractor has caused these presents and two duplicates hereof under his common seal by his duly authorized representative at the place and on the date month and year first herein above written.

SIGNED, SEALED AND DELIVERED by IIIT Sri City, by the hand of

Signature:

Name:

Designation:

IN THE PRESENCE OF

1) Signature:

Name:

Address:

2) Signature:

Name:

Address:

SIGNED, SEALED AND DELIVERED BY the Contractor M/s.

Signature:

Name:

Designation:

IN THE PRESENCE OF

1) Signature:

Name:

Address:

- 2) Signature:
Name:
Address:

SCOPE OF WORK AND SPECIFICATION

IIIT Sri City, Chittoor, Andhra Pradesh, is intending to replace its existing independent Split ACs with the new VRV/VRF Air conditioning system in faculty cabins and student areas on 2nd floor of Academic Block.

- The scope of the work includes supply, erection, testing and commissioning of inverter technology based/ Digital Scroll VRV/ VRF type system of air conditioning conforming to the specifications and in accordance with the Schedule of Quantities, makes & models and all relevant conditions of the NIT.
- The work of air-conditioning (36 HP outdoor in combination of (18+18 HP with R-410A based refrigerant) and indoor units as specified in schedule of work is required to be carried out in 2nd floor of Academic Block IIIT Sri City. The scope of the tender is based on inverter technology based/ Digital Scroll VRV/ VRF air conditioner with air cooled outdoor unit system capable of cooling and heating (reverse cycle) as per season requirement suitable for operation on 415 ±10 V, 3 Phase, 50 Hz AC electric supply.
- The prices quoted shall include all the equipment ancillary material as specified and all such items whatsoever and which may be required to fulfil the intent and purpose as laid down in the specifications. The contractor shall calculate all the quantities and sizes of refrigerant pipe, fitting, cables, control cable, drain pipes, insulation, etc. before installation to avoid any shortfall or surplus.
- The tenderer shall also include all necessary civil work/ MS frame work for installation of outdoor and indoor units in VRV/ VRF based air condition system. The cost quoted by tenderer shall also include the refrigerant gas R-410A & its charging for proper & specified functioning of air conditioning system.
- Civil work/ MS frame work such as making holes, sleeves, foundations for indoor and outdoor units related to VRV/ VRF equipment, all cuttings should be properly finished as existing surrounding. The installation of outdoor units on the terrace of building/Ground should be checked structurally for safe installation.
- The outdoor units shall have both cooling & heat pump mode, consisting of two outdoor units and multiple indoor units of Hi wall split type. Each indoor unit should have capability to cool or heat as per seasonal weather changes. Proper care should be taken for disposal of condensate drain water so that there is no leakage of condensate water inside the room as well in the route of condensate water pipe line.
- The layout of refrigerant piping is to be designed in such a way so that it should not disturb the aesthetic of the building/ room, inadvertent damage in the route of pipe should not occur in future & optimum length of pipe line for efficient air conditioning. After completion of the work three sets of 'as erected/ commissioned drawing' of activities listed above shall be submitted.
- Appropriate design parameters shall be considered as per the site conditions, all efforts shall be made by the agency in execution of low side and high side works to achieve the specified design parameters.

1. Outdoor Unit

- a) The outdoor unit shall be factory assembled, weather proof casing (Material of construction of casing shall be OEM's standard design), constructed from heavy gauge GI sheets/rust proof mild steel in duly enamel/powder coated paint finished steel panels and coated with baked enamel finish. The outdoor unit shall be completely factory wired, tested with all necessary controls & filled with first charge of refrigerant before delivering at site.
- b) The inverter technology based/ Digital Scroll VRV/VRF equipment should be capable so that refrigerant piping between indoor units and outdoor unit shall be Extendable up to 50m with maximum height difference between outdoor & indoor unit of 10m & level difference between two indoor units shall be maximum up to 5m.
- c) The outdoor unit shall consist of Inverter compressor only.
- d) The outdoor unit shall be modular in design and shall be allowed for side by side installation.
- e) The outdoor unit shall be factory tested and filled with first charge of refrigerant R-410A before delivering at site.
- f) The outdoor units should have anti corrosion paint free plate for easy mounting of unit.
- g) The machine must have a sub cool feature to use coil surface more effectively through proper circuit/ bridge so that it prevents the flushing of refrigerant from long piping due to this effect thereby achieving energy savings.
- h) In case of trouble occurs in an indoor units (s), the continuous operation of system should be possible.

2. Compressor

- a) The compressor shall be of Inverter type capable of modulating capacity by frequency variation / highly efficient hermetic Digital Scroll capable of capacity modulation by time averaging method Technology.
- b) All outdoor units shall have multiple steps of capacity control to meet load fluctuation and indoor unit individual control. There should be a suitable arrangement in the oil accumulator to carry out the sufficient lubrication in all parts of compressor.
- c) Oil heater shall be provided in the compressor casing or as per manufacturer standard equipment's.

3. Heat Exchanger

- a) The heat exchanger shall be constructed with copper tubes mechanically bonded to aluminum fins to form a cross fin coil. The aluminum fins shall be covered by anti-corrosion resin film. The System must have sub-cooling and super-heating for heat exchanger further to Condenser to increase refrigerating effect in Indoor units.
- b) The unit shall be provided with necessary number of direct driven low noise level propeller type fans. Each fan shall have a safety guard.

4. Refrigerant Circuit

- a) The refrigerant circuit shall include an accumulator, liquid and gas shut off valves and a solenoid valves or pulse with modulation valve.
- b) All necessary safety devices shall be provided to ensure the safety operation of the system.

5. **Safety Devices:** The following safety devices shall be part of the outdoor unit; High Pressure Switch, Low Pressure Switch, Fan Motor Safety Thermostat, Over Current Relay, Fusible Plugs, Fuses.

6. Oil Recovery System

- a) Unit shall be equipped with an oil recovery system to ensure stable operation with long refrigeration piping lengths.
- b) The system must be provided with oil balancing circuit to avoid poor lubrication.

7. Indoor Unit

- a) Indoor units shall be Hi Wall Split type, as specified in BOQ. Each unit shall have electronic control valve to control refrigerant flow rate respond to load variations of the room.
- b) Each unit shall have high lift drain pump, fresh air intake provision, Low gas detection system and very low operating sound.
- c) All the indoor units regardless of their difference in capacity should have same decorative panel size for harmonious aesthetic point of view.

8. Remote control complete –

The remote should be corded with wide screen display and able to show the Outdoor Status at any given point of time. Also it shall have different modes like Fan Mode, Heat Mode, Cooling Mode etc. also firm arrange single point operation for remote.

The following compliance should be submitted by all the bidders along with their offer.

- a. VRF units should be compatible for temperature range of 0 deg. C to 50 deg. C.
- b. VRF system should be design at 100% inverter based technology.
- c. Average coefficient of performance (COP) should be more than 4.0.
- d. Machine level of noise should not create any hindrance in work proceeding in the office.
- e. In case any unit (Indoor and Outdoor) is out of order other units will be continue in operation automatically.

LIST OF APPROVED BRANDS/ MATERIALS

1. The Contractor shall obtain prior approval from the Engineer-in-charge before placing order for any specific material.
2. Wherever applicable, the Engineer-in-charge may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction. In case on non-availability of the brand specified in the contract, the Contractor shall submit the documentary evidence of non-availability of approved brand and suggest the alternate brand of equivalent quality for the approval of the competent authority. It will be at the discretion of the Engineer-in-Charge to approve or reject the brand suggested by the contractor and approve the name of any other equivalent brand.
3. Unless otherwise specified, the brand/make of the material as specified in the item nomenclature, in the particular specifications and in the list of approved materials attached in the tender, shall be used in the work.

S. No.	Description of Items	Approved Makes & Models
1	Outdoor Units for VRV/VRF System	Toshiba / Daikin / Mitsubishi Electric/ Blue Star /Hitachi
2	Indoor Units 2 TR for VRV/VRF System	Toshiba / Daikin / Blue Star /Hitachi / Mitsubishi Electric
3	Indoor Units 1.5 TR for VRV/VRF System	Toshiba / Daikin / Blue Star /Hitachi / Mitsubishi Electric
4	Y joints/Ref nut	Y joints/Refnet shall be of same making that of indoor unit.
5	PVC Conduit	BEC/AKG/Kalinga
6	Terminal Blocks	Elmex/Siemens/Molex
7	Nitrile rubber	Insyflex/ Aeroflex/ Armaflex/ Eurobatex/ K-Flex
8	Copper Refrigerant Pipe	Mandav/Pallavi/Maxflow/ Rajco
9	Communication & Control cabling	RR/Polycab/Havells/Finolex
10	Drain pump	Crompton / Panasonic /

ITEMS PROPOSED TO BE PROVIDED BY THE BIDDER

Sl. No	Description of Items Party	bidder should specify makes & models quoted in this tender against concerned items as per our specified make.
1	Outdoor Units for VRV/VRF System	
2	Indoor Units 2 TR for VRV/VRF System	
3	Indoor Units 1.5 TR for VRV/VRF System	
4	Y joints/Ref nut	
5	PVC Conduit	
6	Terminal Blocks	
7	Nitrile rubber	
8	Copper Refrigerant Pipe	
9	Communication & Control cabling	
10	Drain pump	

SPECIAL CONDITION OF CONTRACT

1. The tenderer is strongly advised to visit the site and acquaint himself with the proposed site and scope of work bidding.
2. Only manufacturers or their authorized Dealer/Distributor of given brand of required Air-conditioner in this tender will only be considered for further proceeding. In this regard, they have to submit a certificate with their technical bid.
3. **Warranties:** The plant (complete VRV/VRF system) and associated accessories are to be guaranteed for trouble free operation, maintenance and service. The warranty should cover defects due to faulty manufacture, workmanship or material for 1 year from the date of commissioning and handed over with the requisite documentation.
4. On the completion of the work the contractor shall furnish 3 (three) sets of the following documents and drawings.
 - i. Comprehensive Operation and Maintenance Manuals.
 - ii. Approved Equipment Data Sheets.
 - iii. As built drawings duly approved.
 - iv. Test Certificates as applicable.
 - v. Equipment warranties.
 - vi. Signed copies of Testing and Commissioning reports.
 - vii. Call escalation chart
5. Any manufacturing defect found during the defect liability period shall be repaired/ replaced by the supplier free of charge as per terms and conditions embodied in the tender papers and agreement executed with IIIT Sri City The AMC after warranty period shall be carried out by the party at the rates given in the BOQ. Quote for comprehensive AMC after warranty period on annual basis is being taken from the parties as an optional under schedule of quantities however this will not be added for evaluation of bid.
6. The Firm shall ensure adequate and prompt after sales service in the form of maintenance, spares and personnel during the warranty period of 12 months and during the CAMC period which shall be treated from the date of completion of work and as well as during the warranty period to minimize the breakdown period.
7. The firm shall also ensure that in the event of any breakdown of AC system, that area is made operational within 24hrs. otherwise a penalty as deemed reasonable by Engineer-in-charge shall be recovered from the firm.
8. The equipment or components, or any part thereof, so found defective during the warranty period shall be forthwith repaired or replaced with genuine spare of OEM free of cost, to the satisfaction of the Engineer-in-charge. The contractor

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shall be fully responsible for rectifying the defect, which may happen during the use in maintenance. The decision IIIT Sri City in this regard shall be final & binding.

9. A log book of defects rectified during the maintenance period shall be maintained by the agency and shall be available at site of work for inspection by the engineer-in charge or his representative.
10. If bidder do not quote rate of any item under schedule of quantities or left the rate column blank, then their bid will be liable for treated as unresponsive & not be considered.
11. The tenderer shall quote only makes for which he has satisfactorily executed the job.
12. All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works, are to be considered to be the property of the IIIT Sri City and the same are not to be removed or taken away by the contractor or any other person without consent in writing of the Engineer-in-charge, but the IIIT Sri City is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.
13. **Structural Alterations to Buildings:** No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-in-charge. Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications, or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost. All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains/GI&MS Pipe etc. as the case may be, by any suitable means as approved by the Engineer-in-charge without any extra payment.
14. The contractor shall take care of all safety precautions pertaining to work, such as scaffolding, ladder, working platforms, gangways, electric arc/ gas welding, use of hoist and construction machinery.
15. **Indemnity:** The successful bidder shall at all times indemnify the department, consequent on this works contract. The successful bidder shall be liable, in accordance with the Indian law and regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipment and ancillary equipment under the supervision of the successful bidder in so far as the latter is responsible. The successful bidder shall also provide all insurance including third party insurance as may be necessary to cover the risk in his own interest. No extra payment would be made to the successful bidder on account of the above.

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16. On account of security consideration, some restrictions may be imposed by the security staff on the working and/ movement of men and materials etc. The contractor shall be bound to follow all such restrictions/ instructions and he shall organize his work accordingly. No claim on this account, whatsoever, shall be payable.
17. The contractor shall take all precautions to avoid accidents by providing suitable mechanism. He shall be responsible for all damages and accidents caused to existing/ new work due to negligence on his part. No hindrance shall be caused to occupants during the execution of the work.
18. The contractor shall be responsible for the watch and ward of all materials brought by the contractor to site against pilferage and breakage during the period of installation, in campus installed, during usage and thereafter till he/she take back the same out of the campus.
19. The contractor shall take all preventive measures against any damage caused by rain, fire or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the owners' property and to the work for which the payment is due to him under the contract.
20. Subject to the nomenclature of the item as per schedule of quantities, the specification indicated in the tender documents, the rates quoted shall include cost of all materials including royalty and levies if any, labour, sundry inputs, execution of work at all heights, levels, pattern and design for all leads, lifts and depths including overhead charges and contractor's profit. Nothing extra shall be paid on this account.
21. The rate shall be inclusive of making design, pattern and execution of work as per drawings, at all levels and heights.
22. The rates shall be inclusive of making any holes or otherwise for fixing any fixture/ frame work and making good the structure to its original shape and finish.
23. The contractor shall give a satisfactory performance test of installations individually and as a whole to ensure their proper functioning before the work is finally declared and completed and accepted.
24. All tools, plants and measuring or weighing equipment shall be arranged by the contractor himself and nothing extra shall be paid to the contractor on this account.
25. In order to achieve the targeted date of completion the contractor may have to work in multiple shifts, round the clock including public and gazetted holidays and nothing extra shall be paid on this account.
26. The contractor shall be responsible for all statutory provisions and deductions towards ESI, PF or any other, as the case may be or any other levies and taxes shall be borne by the contractors. The Taxes or any other statutory levels/taxes incorporated from time to time shall be deducted from the invoice at the time of payment. No claim in this regard shall be entertained.
27. The contractor is supposed to abide the minimum wages act and shall produce all records to the IIIT Sri City or any other statutory authority as and when

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called for. The IIIT Sri City does not hold any responsibility on account of any lapses in this regard

28. The quantities of various items incorporated in the tender are approximate. However, the payments shall be made to the contractors on the basis of actual measurements taken at site.
29. Any item which is not available in the Bill of Quantity (BOQ) shall be paid as per actual cost of the materials in the market and actual cost of the labour plus 5% as overhead and profit. The decision of Director will be conclusive and final binding on the contractor.
30. Layout of works shall be got checked by IIIT Sri City & only then further work shall be taken by after approval.
31. Agencies Black listed and Suspended from carrying out business by any Government offices, Autonomous bodies, Educational and/or research institutes, PSUs etc need not submit their quote. Suppression of information in this regard will be taken seriously.
32. The contractor is solely responsible for compliance of all labour laws and other associated statutory obligations applicable for the work. IIIT Sri City will not be responsible for any of the compliances or lapses in respect of the aforesaid
33. **Conditions for Comprehensive Annual Maintenance Contract:**
 - i. After successful installation, testing and commissioning, contractor shall immediately handover the entire installation along with necessary documents to IIIT Sri City.
 - ii. The contractor would be required to repair or replace with genuine spare of OEM and material needed to keep the units in working order such as compressor, fan motors and electrical components like starting capacitor, running capacitor, overload relay, gas charging, wires, plugs, cleaning of AC grills, repair of grill dumper, repair/replacement of AC grill, remote of AC and AC filters etc. without any extra cost.
 - iii. The contractor would keep essential stock of spares of standard quality original make preferably (ISI mark) at site for replacement of defective/worn out parts expeditiously. No extra payment for replacement/ repair of all electrical parts including compressor and fan motor shall be paid by IIIT Sri City. The decision of the IIIT Sri City in this regard shall be final & binding.
 - iv. During this period of comprehensive maintenance, the service / repair calls are to be attended within 24 hrs hours from the time of calls. The defective item / equipment shall be repaired /replaced on priority basis including all required consumables, refrigerant etc. to maintain the desire temperature.
 - v. A log book of defects rectified during the maintenance period shall be maintained by the agency and shall be available at site of work for inspection.
 - vi. Payment for maintenance shall be made on quarterly basis on production of report.
 - vii. In case of failure to attend the same within THREE days, the IIIT Sri City shall get it rectified through any other vendor, at the risk & cost of the contractor

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which shall be deducted from any amounts payable to the contractor including the security deposit.

- viii. The contractor shall hand over the entire equipment in good working condition to the IIT Sri City /successive contractor after completion of the Comprehensive AMC period.

DECLARATION BY THE CONTRACTOR

Name of work: Supply, Installation, Testing and Commissioning of VRF/VRV Air Conditioning system in 2nd Floor of Academic block at IIIT Sri City.

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions etc. of the tender document for which I/We have signed and submitted the tender under proper lawful Power of Attorney. It is also certified that the scope of the work and all the terms & conditions of the tender document are fully acceptable to me/us and I/We will abide by the conditions.

This is also certified that I/We/our principal manufacturing/ dealership firms have no objection in signing the contract if the opportunity for the items against this tender is given to me/us.

Date:

Signature:

SPECIFICATION & BILL OF QUANTITIES

Sl No.	ITEM	Quantity	Unit	Rate	Amount
Schedule - A					
	Supply and Providing Variable Refrigerant Volume / Flow Air-conditioning System				
1	Outdoor Unit				
	Supply of Modular type outdoor units equipped with highly efficient digital scroll compressors with inverter type technology, special heat exchanger, low noise condenser fan, auto check function for connection error, auto address setting and capacity as mentioned below. Includes loading unloading lifting and shifting to terrace level				
	a) 36 HP Heat Pump Unit (18+18)	1	Nos		
2	Indoor Units				
	Supply of following Hi Wall Split type indoor units with remote, Renet joints and with Electronic Expansion Valve, complete as per specifications.				
	a) 1.0 TR	10	Nos		
	b) 1.5TR	14	Nos		
	SUB TOTAL - A				
Schedule - B					
3	Outdoor Unit				
	Installation and testing commissioning of the Modular type outdoor units equipped with highly efficient digital scroll compressors with inverter type technology, special heat exchanger, low noise condenser fan, auto check function for connection error, auto address setting and capacity as mentioned below. Includes loading unloading lifting and shifting to terrace level, etc,, complete.				
	a) 36 HP Heat Pump Unit (18+18)	1	Nos		

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Sl No.	ITEM	Quantity	Unit	Rate	Amount
4	Indoor Units				
	Installation and testing commissioning of following Hi Wall Split type indoor units with remote and with Electronic Expansion Valve.				
	a) 1.0 TR	10	Nos		
	b) 1.5TR	14	Nos		
5	Installation, Testing & Commissioning of Refnet joints.	24	Nos		
6	Refrigerant Piping for VRV / VRF System: Supply, Installation & testing of interconnecting copper refrigerant pipe duly insulated with elastomeric nitrile rubber type tubular insulation of 19mm/13mm between indoor & outdoor units.				
	a) 34.9 mm	58	RMT		
	b) 28.6 mm	12	RMT		
	c) 25.4 mm	10	RMT		
	d) 22.2 mm	60	RMT		
	e) 19.1 mm	60	RMT		
	f) 15.9 mm	74	RMT		
	g) 12.7 mm	10	RMT		
	h) 9.5 mm	82	RMT		
	i) 6.4 mm	48	RMT		
7	Additional Refrigerant Gas: Supply & Charging of additional refrigerant gas (R 410a) at site as required for satisfactory commissioning of AC System.	15	Kg		
8	Condensate Drain Piping: Supply, Installation & testing of PVC condensate drain water piping with fittings like elbows, tees, reducers, bends, flanges, supports, insulation etc. as required and of following sizes.				
	a) 25mm dia pipe, Insulation Thick-9 mm	40	RMT		
	b) 32 mm dia pipe, Insulation Thickness - 6 mm	10	RMT		

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SI No.	ITEM	Quantity	Unit	Rate	Amount
9	Condensate Drain water pump: Supply, Installation testing commissioning of 2 liter capacity drain water pumps for indoor hi-wall split units	24	Nos		
10	Supply & Fixing of microprocessor based communication cable interconnecting outdoor to indoor in PVC Conduit, as per directions of Engineer-in-charge.				
	a) 2C x 1 Sq mm (Unarmoured)	120	RMT		
11	Supply & Fixing of GI Cable Tray				
	a. (300 mm x 150 mm)	44	RMT		
	b. (200 mm x 50 mm)	76	RMT		
12	Supply & Installation of Cubicle Type Electrical Panel for Outdoor Units having Suitable capacity MCB & ELCB. (63A)	2	Nos		
13	Supply & Installation of Copper Conductor Power Cable of following sizes.				
	a) 4 C x 16 Sqmm Armoured Cable	150	RMT		
	b) 4 C x 10 Sqmm Armoured Cable	20	RMT		
	d) 3 C x 2.5 Sqmm.	Rate only	RMT		
	e) 3 C x 1.5 Sqmm.	40	RMT		
14	Supply & Installation of GI Wire Earthing.	30	RMT		
15	Removing of Existing Hi wall units and piping, cabling, etc., complete and staking at designated place (2TR to 1 TR capacity)	19	Nos		
16	Civil works & gypsum ceiling work for copper pipes laying, and pedestals for outdoor units as per site conditions and as directed by the Institute.	1	L.S		
17	Supply and installation of PVC trunking (100 x 100mm) for covering indoor units copper pipes below false ceiling	1	L.S		
	SUB TOTAL - B				
	TOTAL OF (A+ B)				

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SI No.	ITEM	Quantity	Unit	Rate	Amount
Total amount in words:					
Schedule - C					
18	Comprehensive Maintenance of inverter type scroll compressor(s) VRV/VRF type of Air Conditioning systems complete as provided and installed and commissioned in SCHEDULE A & B of this Schedule.				
	1 st Year Comprehensive maintenance (Warranty/ defects liability period) after commissioning and handing over	12	Month	Nil	Nil
	2 nd Year Comprehensive AMC (after the warranty period)	12	Month	10000	1,20,000.00
	3 rd Year Comprehensive AMC	12	Month	10500	1,26,000.00
	4 th Year Comprehensive AMC	12	Month	11000	1,32,000.00
	5 th Year Comprehensive AMC	12	Month	11500	1,38,000.00
	SUB TOTAL - C				5,16,000.00
	(Rupees Five lakh Sixteen thousand only)				
	SUB TOTAL (A+B+C)				

Note:

1. The contractor should quote their rates for all items of **Schedule -A and B** excluding GST. Bids will be evaluated based on the **Schedule -A and Schedule -B**
2. The liability of depositing tax (GST) to the concerned Department against this work will be totally on the contractor.
3. The items under **Schedule -C** shall be carried out by the contractor mandatorily at the rates pre-fixed by the IIIT Sri City (excluding GST). The contractor is advised to load/unload accordingly on other items so that their overall bid will be competitive.
4. The payment for items under **Schedule -C** (CAMC will be released **quarterly** on pro-rata basis, after providing satisfactory services in each quarter.