## NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 15

Web: www.nitt.edu Phone: 0431 -250 3840/3940

ESTATE MAINTENANCE DEPARTMENT/ELECTRICAL



### TENDER DOCUMENT (TECHNICAL BID)

Name of work : Supply, Installation, Testing and

**Commissioning of Ductable inverter type** 

Air conditioning units for A2 Hall. (13.5 TR & 8.0 TR with suitable AHU)

Value of Work : **Rs. 9,95,546/-**

Tender Enquiry No : 03/19-20

Period of Contract : 45 days.

Tender Enquiry No : NITT/EMD/EE/AE(E)/

Tender Notice/Enq.No:03/19-20 dt:10.07.2019

## NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPALLI -620 015. ESTATE MAINTENANCE DEPARTMENT/ELECTRICAL

#### **NOTICE INVITING TENDER**

1. Name of Work	Supply, Installation, Testing and Commissioning of Duct able - inverter type Air-conditioning units for A2 Hall. (13.5TR – 1No & 8.0 TR-1No ) with suitable AHU.
2. Estimated Cost :	Rs. 9,95,546
3. Earnest Money Deposit	: Rs. 19,911/-
4.Completion time	: 45 days (from the date of commencement of work which will be reckoned from the date of agreement with the contractor)
5. Pre - Bid Meeting	: A 11 Hall on 17.07.2019 at 11.00 A.M
6. Cost of tender document	: Nil
7. Last Date & Time for submission of tenders:	: 25.07.2019 at 3.00 P.M
<ul><li>8. (a) Date &amp; Time of Tender opening (Technical Bid)</li><li>(b) Opening of Price bid intimation</li></ul>	<ul><li>26.07.2019 at 3.30 P.M</li><li>Only qualified bids after evaluation.</li></ul>
9. Maintenance period and Handing over	: One year from 100% completion of entire work and handing over to National Institute of Technology.
10. Address for Submission of tender	: The Director, National Institute of Technology, Tiruchirappalli-620 015.
Tender document contains	24 pages including Price bid.
Name of the Agency Submitte the tender	ing:
	•••••

#### **DETAILS OF THE PROJECT**

Title of the Project	Supply,Installation,Testing and Commissioning of Ductable - inverter type Air-conditioning units for A2-Meeting Hall with suitable AHU.	
Requirement details	Supply and installation of (13.5TR – 1No & 8.0 TR-1No) capacity inverter ductable type Air-conditioning systems comprising fixed with energy efficient scroll compressor along with grooved copper tube, aluminum fins air cooled condenser coil with hydrophilic blue fin anticorrosion coatings, liquid accumulator, low noise aluminum propeller condenser fan ,all suitable assembled neatly heavy duty GSS sheet metal cabinet and duly powder coated. The operating refrigerant (any echo friendly) should be like R-407 /R 410A.  Quantity – each 01 No.  CEILING SUSPENDED AIR HANDLING UNITS  Supply and installation of ceiling suspended Air Handling unit suitable for above said capacity inverter type ductable Air conditioners.  AHU to be for low noise and low foot print.  Quantity – each 01 No.  Make:LG/Daikin/O-General/Mitsubishi /Hitachi/Blue Star/Voltas / Toshiba/ETA	
Location	A2 Hall - NITT Main Admin building	
Operating voltage	3 phase / 430V /50hz	
Area to be A.C – Sq.Ft	2167 (Approximately)	
Plan (site) document	Page No: 19,20 & 21 attached	
attached for your reference.  Outside design conditions	104° FDB & 80° FWB	
8		
Inside design conditions	75° FDB +/ - 2° FDB	
Occupancy- no. of persons	Approximately 150 persons	
Lighting load & Equipment load	1 kW	
Warranty	General Warranty - Minimum one year from the date of handover to NITT with proper drawing, warranty certificate, Operating Manual, Invoice	
Extended warranty after one year under CAMC	To be specified by the vendor/supplier in price bid.	

#### NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPALLI -620 015.

#### ESTATE MAINTENANCE DEPARTMENT/ELECTRICAL

#### INSTRUCTION TO TENDERERS

- 1) The tender value includes cost of supply of AC and civil materials and all other related material required for completion of the work.
- 2) Time is the essence of the contract. Being a time bound project, the contractor should make all efforts to complete the work time.
- 3) Even though the overall completion period is indicated as 45 Days, the work shall be completed progressively and handed over as per agreed split up schedule if any.
- 4) The tenderers are advised to visit the site and get themselves acquainted with the site conditions before submitting the offer.
- 5) Tender quantity is only approximate and liable for variation without entitling the tenderer to any compensation, till the total value of contract vary by more than 30% (thirty percentage).
- 6) Quoted rate shall remain valid for a period of 45 days from the date of tender opening for the release of work order and will be firm throughout the contract period of 45 days or till completion of work, once awarded and no cost escalation is allowed on any account.
- The item rate offered is for finished item of works and shall provide for the complete cost towards fuel, tools, tackles, plant & machinery, temporary works, labour, materials, levies, taxes, transport, lay-out, repairs, rectifications, maintenance till handing over, supervision, labour colonies, establishment, services, roads, revenue expenses, overheads, profits & all other incidentals etc., complete. Rate quoted shall include all royalties, terminal taxes, Octroi duties, Central or Provincial Excise Tax, Sales Tax and any other taxes leviable under the State or Central Government rules. NITT will not entertain any claim whatever in this respect. The applicable GST can be reimbursed by NITT along with the running / final bill on production of documentary evidence by the agency for having paid the service tax to the authorities concerned.
- 8) Some changes are likely in the quantities furnished as well as in the layout, design and specifications of the work. The rates quoted shall be deemed to be inclusive of all such contingencies
- 9) Since the responsibility for the quality, workmanship and accuracy of any work being carried out under this contract lies with the contractor, the contractor should ensure that no work is done without the presence of contractor's representative at the work spot, whose strength depends on the value of contract awarded. The contract should arrange for surveying construction site at his own cost.
- 10) The decision of Engineer-in-charge shall be final and binding on the contractor regarding clarification of items in this tender schedule.

- 11) To safeguard the persons working at height in roof, wall etc., sufficient number of Industrial Safety nets shall be provided at tenderer's cost in appropriate level and locations. The working hand including Supervisors, Engineers should wear the personal protective items and safety measures such as helmets, safety belts, shoes, etc., before entering into working place.
- 12) Expertise labour and work experienced persons only to be engaged for specialized items of work like laying of ducts ,erection of AC units and other connected works..
- 13) The contractor shall follow norms of NITT security system for movement of men & materials within the campus.
- 14) All materials brought by the Contractor for incorporation in the work shall be got inspected and approved by the Engineer-in-charge before they are incorporated in the work and submitted with bills.
- 15) The contractor should extend fullest co-operation with the third party agencies engaged, if any by NITT, to adhere the Quality Control Procedures ensuring quality.
- 16) The contractor should extend full co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.
- 17) Tenderers are requested to furnish the duly filled in payment format attached as separate sheet along with a cancelled cheque leaf to accept Electronic fund transfer / R T G S transfer for any payment from NITT, Trichy.
- 18) No advance / mobilization advance will be given.
- 19) NITT reserves its right to reject a tender due to unsatisfactory past performance in the execution of a contract awarded against a different Tender.
- 20) Rate for each item should be quoted in FIGURES and in WORDS. In case of any difference in the rates quoted in figures and in words, the lower of the two rates will be taken as the tendered rate. Unit rate quoted shall be the basis for arriving the total value of the tender. The total amount for every item shall be arrived by multiplying the unit rate with the quantity indicated for that item. In case of any arithmetic deviation is noticed in the total amount, the same will be corrected and evaluated by taking unit rate as basis and multiplying with the quantity indicated.
- 21) Tenders received after the due date and time of opening, will not be accepted.
- 22) All the documents shall be duly signed with seal in all pages and placed in a common sealed cover duly superscripting the **Name of Work, Tender reference & Date of opening** and submitted.
- 23) Tenderer should furnish the RATE in the enclosed tender "Price Bid" and shall be duly signed with seal in all pages and placed in a separate sealed cover duly superscripting the cover "PRICE BID".

- 24) The Demand Draft towards EMD along with complete tender document consisting Technical qualification details but excluding price bid shall be placed in a separate cover duly superscripting the cover "Technical Bid". Tender without EMD will be rejected.
- 25) Totally there will be 3 Separate sealed covers. One cover containing, EMD/Exemption(NSIC/MSME) certificate, the 2nd one is tender documents containing Technical Qualifications/pamphlets and the 3<sup>rd</sup> cover containing the only "Price Bid" all the contents/pages duly signed with company seal in all pages.
- 26) All the above 3 Covers shall be placed in a <u>Common Sealed Cover</u> and submitted before the said due date as given above superscripting the tender No. & Date and Due Date.
- Agency registered with NSIC/MSME is exempted from payment of tender Earnest Money Deposit but required to attach the attested copy of registration indicating the company name, address, registration number, validity & product for which registered in the technical bid,. Any deviation in the certificate on product or validity or name of the company tendering, will attract rejection resulting non-opening of respective price bid.
- 28) Any deviation to this tender terms & condition and schedules of this tender will cause total rejection of the offer submitted
- 29) Incomplete offers will become liable for rejection.
- 30) Tender addressed to **The Director, NIT, Tiruchirappalli-620 015** will be received up to 15.00 Hrs **at the office of the Registrar** as per the schedule of tender notice and will be opened next day at 15.30 Hrs in the presence of those who may choose to attend the tender opening.
- 31) Tender submitted by post should be sent superscripting "**Register Post with Acknowledgement Due**". These should be posted with due allowance for any postal delay. Tender received after due date and time of opening tenders, will be rejected and NIT, Trichy will not be responsible for any postal delay or tender may be put into tender box. Or the tender document may submit in person to our Administrative office dispatch section on before due date and time.

#### 32) Earnest Money Deposit:

Earnest Money is to be paid by each tenderer to ensure that the tenderer does not refuse to execute the work after it is awarded to himshall also be furnished in the form of **Demand Draft** in favour of The Director, NIT Tiruchirappalli. EMD in any other form will not be accepted. The rate of earnest money deposit shall be as under:

Works costing up to Rs. 1 lakh 1%

Works costing more than Rs.1 lakh 2% of the Estimated cost put to tender

- a) After opening the tender, the tenderer revokes his tender within the validity period or increases his earlier quoted rates.
- b) The tenderer does not commence the work within the period as per LOI / Contract. In case the LOI / contract is silent in this regard then within 15 days after award of contract.
- c) EMD given by all unsuccessful tenderers shall be refunded normally within fifteen days of acceptance of award of work by the successful tenderer.
- d) EMD shall not carry any interest.

#### 36) Performance guarantee

(1) The successful tenderer, hereafter referred to as the contractor, shall deposit an amount equal to 5% of the tendered and accepted value of the work (The PG value should be submitted separately between Project work and CAMC Periods and The Performance guarantee of CAMC period should be given every year separately) (without limit) as performance guarantee in the forms of:

#### Banker's Cheque/Demand Draft/A Scheduled Bank

- (2) The time allowed for submission of the performance guarantee by the contractor shall be decided by the NIT approving authority for a period ranging from 4 to 15 days of issue of the letter of acceptance, depending upon the magnitude and/or urgency of the work.
- (3) The Performance Guarantee shall be refunded to the contractor after successful completion of warranty maintenance period of 12 months. The refund of Performance Guarantee will not carry any interest.
- 37) National Institute of Technology will not be bound by any power of attorney granted by the tenderer or by changes in the composition of firm made subsequent to the execution of the contract. They may however recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contract concerned.
- 38) If the tenderer deliberately gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, NITT reserves the right to reject such tender at any stage.
- 39) The expenses for completing and stamping the agreement shall be paid by the contractor.
- 40) Tenderers shall not increase their quoted rate in case NITT, negotiates for reduction of rate. Such negotiation shall not amount to cancellation or withdrawal of the original offer and the rate originally quoted shall be binding on the tenderers for a period of three months from the date of opening of tenders.
- Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection
- 42) All entries in the tender documents should be in one ink. Erasers and over writings are not permitted. All cancellations and insertions should be duly attested by the tenderer concerned.
- 43) TENDERERS should fill in all the required particulars in the blank spaces provided for this purpose in the tender documents and also sign each and every page of Tender Documents including the drawings attached there to, before submitting their tender.
- 44) This tender notice shall be deemed to form an integral part of the contract to be entered into for this work.
- The tenderers are advised to go through the condition stipulated in Tender document & code of conduct for Safety of Contract Labourer' in details. Any violation thereof will

invite punitive action being taken against them. While quoting the rate all the above factors are to be taken into account.

#### 46) Compensation for Delay:

If the contractor fails to maintain the required progress or to complete the work and clear the site on or before the contracted or extended period of completion, he shall, without prejudice to any other right or remedy of the NITT on account of such breach, pay as agreed compensation an amount calculated as stipulated below or such smaller amount as may be fixed by the NITT on the contract value of the work for every week that the progress remains below or that the work remains incomplete.

This will also apply to items or group of items for which separate period of completion has been specified.

For this purpose the term 'Contract Value' shall be the value at contract rates of the work as ordered and the compensation for delay is by way of recovery at 1 percent of contract value per week of delay provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the contract value or of the contract value of the item or group of items of work for which a separate period of completion is given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the NITT.

#### 47) **Arbitration:**

Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions hereinbefore mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Director of NITT and if Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Director, willing to act as such arbitrator. The cases referred to arbitration shall be other than those for which the decision of the Estate Officer / Engineer-in-charge is expressed in the contract to be final and conclusive. There will be no objection if the arbitrator so appointed is an employee of NITT and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference.

The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, Director as aforesaid at the time of such transfer, vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. Subject as aforesaid the provision of the Arbitration & Reconciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is a term of the contract that the party involving arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrator(s) may from time to time with consent of the parties enlarge the time for making and publishing the award.

The work under the Contract shall, if reasonably possible, continue, during the arbitration proceedings and no payment due or payable, to the Contractor shall be withheld on account of such proceeding.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the Parties fixing the date of first hearings. The arbitrator shall give a separate award in respect of each dispute or difference referred to him. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion. The award of the arbitrator shall be final, conclusive and binding on all parties to this contract.

In the event of disputes or differences arising between one public sector enterprise and a Govt. Department or between two public sector enterprises the above stipulations shall not apply or its amendments for arbitration shall be applicable.

#### GENERAL CONDITIONS OF CONTRACTOR

- 1. No night work will be permitted without the written permission of the Engineer in charge.
- 2. Permission for erection of temporary work sheds etc., at site will have to be obtained from NITT in writing in advance.
- 3. The works contract to be entered into with the successful tenderer will be governed by the CPWD works Manual 2012 or the latest in force.
- 4. The successful tenderer / Contractor shall observe all safety regulations and take necessary safety precaution as called for and Safety Precautions enclosed herewith.
- 5. In all matters of dispute, the decision of the Director, National Institute of Technology, Tiruchirappalli -620 015. shall be final and binding on the tenderer / contractor.
- 6. Some changes are likely in the quantities furnished as well as in the layout, design and specifications of the work. The rate quoted shall be deemed to be inclusive of all such contingencies.
- 7. All materials brought by the Contractor for incorporation in the work shall be got inspected and approved by the Engineer-in-charge before they are incorporated in the work
- 8. Engineer in charge / Electrical / R & AC or his duly authorized representative shall have all reasonable times access to Contractor's premises of work and shall have the power at all the reasonable times to inspect and test any portion of the work or examine the materials and workmanship of the structures during their manufacture and test. The contractor shall give due notice in writing to the Inspecting Engineer of NITT when the materials supplied to be incorporated in the work are ready for Inspection and test. No material shall be incorporated in the work until the inspecting Engineer certified in writing that such

materials have been inspected and approved by him or else the rejected material should be removed from site immediately.

- 9. The Contractor shall closely scrutinize all the drawings issued in connection with the work by this organization and bring to the notice of the Engineer-in-charge if any discrepancies, omissions in the drawings before undertaking the actual work pertaining thereto.
- 10. The contractor should submit in advance every fortnight a detailed programme of work to be undertaken from time to time strictly in conformities with the "Time and Progress Chart" covering the entire constructed work and reschedule them wherever necessary during the progress of the work so as to achieve the target set.
- 11. The contractor should extend full co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.

#### PAYMENT OF BILLS

- 1) All payments to be made to the Contractor, after completing project successfully, submitted all documents like drawing, warranty certificates, user manual and other all related documents and the payment shall be made by NEFT or RTGS within 30 days, after the certification of bills by the execution department.
- 2) DETAILS & QUANTITIES of each item of work shown in the BILL OF QUANTITIES are only approximate. They are given as a guide for the purpose of tendering only and are liable to variation, based on site requirement and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the corresponding rate quoted by the contractor in the BILL OF QUANTITIES.

#### PRECAUTIONS AGAINST RISK:-

- 1) The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.
- 2) The delivery of the units at F.O.R TIRUCHIRAPPALLI NITT by venders Responsibility without any damage.

#### **Corrigendum / Amendment:**

1) It is tenderer's responsibility to watch for any corrigendum or amendment till the opening of a particular tender, that will be posted only at NITT web site.

Important Procedure for submission of Bid	Envelope 1: EMD - DD /MSME/NSIC - CERTIFICATE
	Envelope 2: Technical Bid, required pamphlets and
	other technical documents.
	Envelope 3: Price bid (Page No:22,23,24,)
Subinission of Diu	Envelope 4: Larger size Outer Envelope (i.e., This is
	wrapper containing Envelope 1, 2 and 3)
Note: Tender number, project title and op	
	must in mentioned in all envelopes.

#### Check list - Technical bid

Sl.No.	Item/ Requirement from the Bidder	Bidders Response should be definite, complete and legible. Use separate sheet wherever necessary.
1	Particulars of remittance of EMD: Specify (a) DD Number (b) Amount (c) Name of Issuing Banker Note: Bids without EMD will be rejected summarily	
2	Name and Complete Postal address of the Applicant or Bidder Firm/ Company with phone/ Fax/ Mobile number	
3	Legal status / Constitution of the Bidder:  (a) Sole Proprietor (b) Partnership (c) Private Limited Company d) Public Limited Company (e) others  Please attach self-attested documentary proof	
4	Nature of the Business of the Bidder	
5	Year of Commencement of Business	
6	Location of the Registered / Main Office	
7	(a) Name, (b) address, (c) designation, (d) phone & cell number and (e) E mail ID of the proprietor of the company	
8	Name and address of your banker	
9	Copy of Income Tax Permanent Account Number (PAN Number) (PleaseAttach self- attested Xerox copy)	
10	Annual Turnover during the Last three financial years 2016-17,2017-18 and 2018-19 (Profit and Loss Account and Balance sheet duly audited and certified by a Chartered Accountant and Income Tax Return Acknowledgement i.e., ITR for the last three years may be attached)	
11	Total Manpower available with the bidder	

12	GST Registration Number, (Self-attested copy to be attached	
13	Supply and installation of (13.5TR – 1No & 8.0 TR-1No) capacity inverter type duct able type Air-conditioning systems comprising fixed with energy efficient scroll compressor along with grooved copper tube, aluminum fins air cooled condenser coil with hydrophilic blue fin anticorrosion coatings, liquid accumulator, low noise aluminum propeller condenser fan, all suitable assembled neatly heavy duty GSS sheet metal cabinet and duly powder coated. The operating refrigerant (any echo friendly) should be like R-407/R 410A.  Quantity each 1 No.	(To be filled all the detailed information is mandatory)
13	Brand: Make: LG/Daikin/O-General/Mitsubishi /Hitachi/Blue Star/Voltas / Toshiba/ETA  MAKE: (Please enclose product pamphlets for technical details going to supply) Model:	
	Capacity:	
	No. of compressors:  Type of compressors:	
	Warranty period:	
	Ceiling suspended Air Handling Unit suitable for above said 13.5 TR and 8.0 TR capacity units with all accessories	(To be filled all the detailed information is mandatory)
	AHU to be for low noise and low foot print.  Quantity each 1 No.	
14	MAKE: (Please enclose product pamphlets for technical details going to supply)	

CONTRACTOR ACCEPTINGOFFICER

15	Details of similar work, if any, executed or being executed along with address of the service receiver with contact number, value of the work. Enclose a copy of the work order along with performance certification.	Use separate sheet to furnish complete details in <b>FORM</b> – <b>A</b> format.
16	Willing to support CAMC after completing warranty period for another 4 years.	Yes/No
17	Authorised sales agency for quoted brand or integrator/service provider? (if yes means give the details)	
18	Any service team available at Trichy during warranty period? In case of supplier at outside Trichirappalli. (if yes means give the details)	
19	Requirement of Electrical Input power for OUTDOOR (or) INDOOR with suitable MCCB/Main switch from NITT (based on your supply equipment) Details to be furnished as a drawing)	
20	Vender Details  Marketing  Technical  Site In charge/ Project Head	Name: Mobile No: Mail id: Name: Mobile No: Mail id: Mail id: Mail id: Name: Mobile No: Madil id:

 $<sup>\</sup>checkmark$  I / we hereby certify that all the statements made and information supplied in the enclosed forms and accompanying statements are true and correct.

✓	I/We also authorize the Director, NIT Tiruchirappalli or his representative to approach
in	dividuals, firms and corporations to verify our competence and general reputation.

Authorized signatory of Bidder with Seal	
Name and Designation	••

 $<sup>\</sup>checkmark$  I / we have furnished all information and details necessary for deciding our eligibility to be qualified for taking part in the tendering process for the work. We have no further information to supply.

#### FORM - A

S.No.	Description of work/ supplied	Total Amount of work (an figure and word) Rs. P.	Period of contract

#### **SUPPLY OF MATERIALS**

S.No.	Description	Unit	Approximate Qty.
01.	Supply and installation of 13.5 TR & 8.0 TR capacity inverter ductable type Air-conditioning systems comprising fixed with energy efficient scroll compressor along with grooved copper tube/aluminium fins air cooled condenser coil with hydrophilic blue fin anticorrosion coatings, liquid accumulator, low noise aluminum propeller condenser fan etc., all suitable assembled neatly heavy duty GSS sheet metal cabinet and duly powder coated. The operating refrigerant (any echo friendly) should be likeR-407C/R410A-Quantity each - 01 No.	No.	Each - 1No.
	Make:LG/Daikin/O-General/Mitsubishi /Hitachi/Blue Star/Voltas / Toshiba/ETA		
	Make:		
02.	Ceiling suspended Air Handling Unit suitable for above said 13.5 TR and 8.0 TR capacity inverter type units with all accessories	No.	Each - 1No.
	AHU to be for low noise and low foot print.  Quantity - each 01 No		
	MAKE:		
03.	Micro controller based ON – OFF control Panel for each AHU operation with and digital display (including inter connected shielded cable control panel and AHU)	Nos.	02
04.	Copper refrigerant piping interconnecting each indoor and outdoor units – 1 1/8".	Rmt.	As required
05.	Copper refrigerant piping interconnecting each other indoor and outdoor units 7/8" or 5/8	Rmt.	As required
06.	Eco-friendly R410A refrigerant or equivalent	kg	20
07.	GSS supply air ducting (24 G) – rectangular - as per drawing, site inspection & reliability at site.	Sq.Mt. Sq.Mt.	As required

08.	Communication and power cable for interconnect to Indoor and Outdoor unit and control panel.	Rmt.	As required
09.	Flexible canvass Duct connection	Lot	02
10.	Acoustic insulation of the ducting with 10 to 15 mm thick open cell nitrile rubber.	Sq.Mt.	As required
11.	Powder coated -tile replacement - Square type - 4 way Diffusers	Nos.	09
12.	Powder coated aluminum linear fixed bar Grille for return Air	Sq.Mt.	03
13.	Thermal insulation for the supply air ducting carried out of 9 mm thick aluminum foil lamination	Sq.Mt	As required
14.	MS angle structural painted frame work to stand the outdoor units.	Lot	2 Nos.
15.	Sound attenuators for the supply and return ducting.	Nos.	02
16.	Wall mounting Digital thermometer	Lot	01
17.	Installation of UPVC drain piping (25 mm) from indoor unit with suitable U trap fitting and consumables.	Rmt	15
18.	Required fasteners for all above installations	Lot	01
19.	Including of all civil work related with AC installation work	Lot	01

#### F.O.R - TIRUCHIRAPPALLI - NITT

#### NITT - SCOPE

- ➤ 415V, 3 Phase, 50 Hz power supply with separate Main switch/ DB will be provided as a INPUT.
- > Separate earth will be provided for each indoor and outdoor units using 8 SWG GI/COPPER Wire.

## NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 15

Web: www.nitt.edu Phone: 0431 -250 3977/3940

ESTATE MAINTENANCE DEPARTMENT/ELECTRICAL



# TENDER DOCUMENT (PRICE BID)

Name of work : Supply, Installation, Testing and

**Commissioning of Ductable inverter** 

Type Air-conditioning units With suitable AHU for A2 Hall (13.5 TR and 8.0 TR - each 1 No.)

**Value of Work** : Rs. 9,95,546/-

**Tender Enquiry No** : 03/19-20

Period of Contract : 45 days.

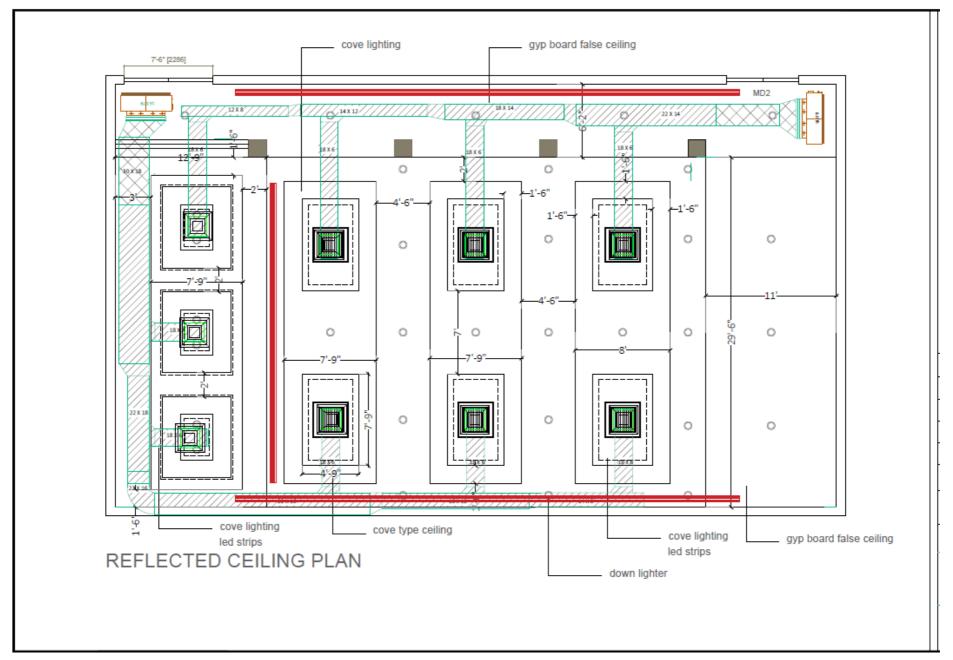
**Tender Enquiry No : NITT/EMD/EE/AE(E)** 

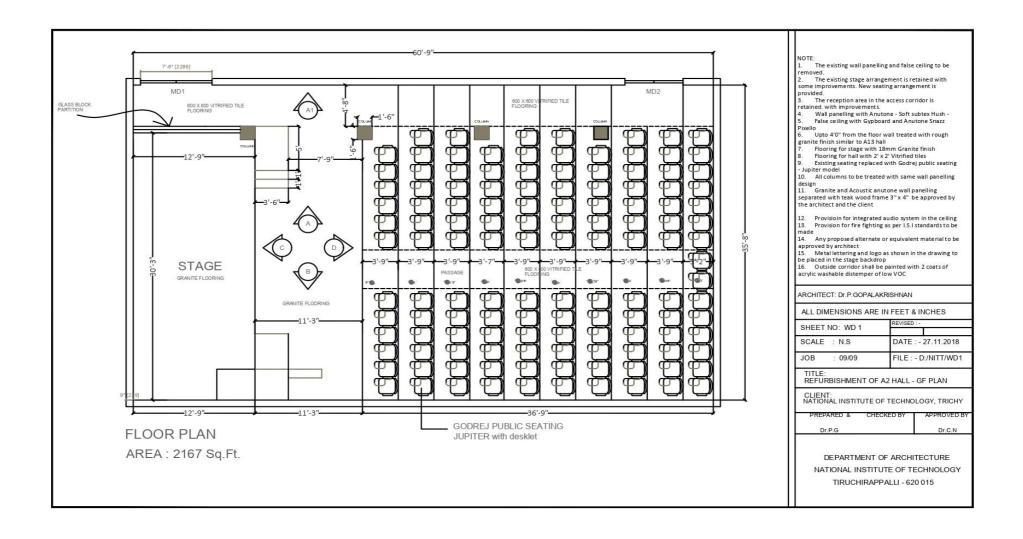
Tendernotice//Enq.No:03/19-20 dt:10.07.19

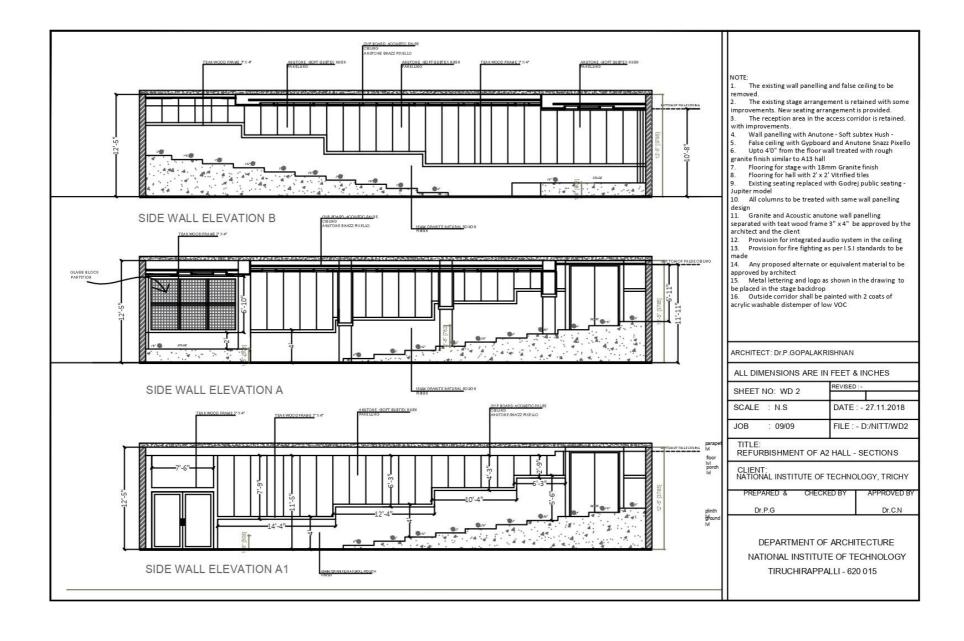
Contract Agreement No.
TENDER
То
The Director, National Institute of Technology TIRUCHIRAPPALLI –620 015.
I / We hereby offer to carry out the work of
I / We hereby carefully perused the following documents connected with the above noted work and agree to abide by the same.
1.Specifications (General & Particular ) 2.Drawings 3.Schedule 'A', 4.Bill of Quantities 5.CPWD works Manual in force.
I / We forward herewith the sum of Rs
I/We further agree to execute all the work referred to in the said documents upon the terms & conditions contained or referred therein and as detailed in Schedule 'A' and Bill of Quantities thereto and to carry out such deviations as may be ordered, vide conditions of the NITT upto a maximum of 30% of the tendered amount of Rs
I/We further agree to refer all disputes, as required to the sole arbitration of an Officer, to be appointed by the Director, NITT., in his sole discretion whose decision shall be final and binding.
WITNESS Signature of the Contractor
Date :
2
2
Name of the Company:
Address:

CONTRACTOR ACCEPTINGOFFICER

**Contact Number:** 







CONTRACTOR

ACCEPTINGOFFICER

#### **PRICE BID**

Tender No. & Date: NITT/EMD/EE/AE(E)/Tender Notice/ENQ.NO. 03 /19-20

Name of the Bidder:

	SUPPLY I'	ΓEMS – PAF	RT A			
S. No.	Description	Unit	Qty	Basic Rate in Rs.	GST in % Rs.	Total Amount Rs.
(A)	Supply of 13.5TR & 8.0TR capacity inverter - ductable type Air-conditioning systems comprising fixed with energy efficient scroll compressor along with grooved copper tube/aluminum fins air cooled condenser coil with hydrophilic blue fin anticorrosion coatings, liquid accumulator, low noise aluminum propeller condenser fan with all suitable assembled neatly heavy duty GSS sheet metal cabinet and duly powder coated. The operating refrigerant (any echo friendly) should be like R-407C/R410A, with suitable heavy duty — ceiling suspended air handling unit.  Complete Set (Indoor and Outdoor units)  (LG/Daikin/O-General/Mitsubishi//Hitachi/BlueStar/Voltas/ETA/Toshiba/Carrier)  Make:  Model No:  (to be specified)	13.5 TR 8.0 TR	1No. 1No.			
	Total Amount (PART - A)					

	INSTALLATION& OTHER ACCESSORIES – PART B					
S. No.	Description	Unit	Qty ** (aproximate)	Basic Rate in Rs.	GST in % Rs.	Total Amount Rs.
(B)	Installation, Testing, & Commissioning of above quoted 13.5 TR & 8.0 TR capacity - condensing unit and suitable CEILING SUSPENDED AIR HANDLING units. and microprocessor based temperature control ON - OFF PANEL with digital display with following materials as per site inspection and requirement for successful installation.	LOT	2 Nos.			
2)	Supply and installation of Micro controller based ON – OFF control Panel for each AHU operation and digital display (including inter connected shielded cable control panel and AHU) – Wall mounted	LOT	2 Nos.			
3)	Copper refrigerant piping interconnecting each indoor and outdoor units $-1 \frac{1}{8}$ " with proper insulation.	Rmt	As req.			
4)	Copper refrigerant piping interconnecting each other indoor and outdoor units 7/8"- 5/8" with proper insulation.	Rmt	As req.			
5)	Eco-friendly refrigerant or equivalent like <b>R-407C/R410A</b> (Based on manufacturer)	kg	20			
6)	GSS supply air ducting – rectangular - as per drawing, site inspection & reliability at site.  24 G - 0.60 mm - Rectangular /22 G -0.80 mm Rectangular	Sqm. Sqm.	As req.			
7)	Electrical Cable & including PVC conduit between to connect indoor unit to outdoor units.	Rmt	As req.			
8)	Flexible canvass Duct connector	Nos.	02			
9)	Acoustic insulation for the initial portion of supply air ducting, with 10 to 15 mm thick open cell nitrile rubber	Sqm	25			
10)	Powder coated -tile replacement - Square type - 4 way Diffusers included GI Black painted Collar Dampers.	Nos.	As req.			
11)	Powder coated aluminum linear fixed bar Grille for return Air	Sqm	As req.			
12)	Thermal insulation for the supply air ducting carried out of 9 mm thick aluminum foil lamination.	Sqm	125			

13)	MS angle structural painted frame work to stand the outdoor	Lot	02				
14)	units.  Sound attenuators for the supply and return ducting.	Nos.	02				
15)	Wall mounting Digital thermometer	Lot	01				
16)	Installation of UPVC drain piping (25 mm) from indoor unit with suitable U trap fitting and consumables for 2 AHU's.  Note: Required fasteners, small civil work related with above AC installation work included – & F.O.RNITT	Rmt.	25				
	Total Amount (PART - B)						
` 1	(Rupeesonly)  ** Visit our site to evaluate and submit lowest offer accordingly.						

	SUPPORT FOR CAMC (After completion - warranty period) - PART C						
S. No.	Description	Unit	Qty	Basic Rate in Rs.	GST in % Rs.	Total Amount Rs.	
01	CAMC charges for 2 <sup>nd</sup> year	-	2				
02.	CAMC charges for 3 <sup>rd</sup> year	-	2				
03.	CAMC charges for 4th year	-	2				
(Rupees	(Rupees						

S. No.	PRICE BID - DETAILS	Total Amount including GST Rs.
01.	Supply of Air conditioners with AHU - PART - A	
02.	Installation and other Accessories - PART - B	
	Total cost (A +B)	
	Additional warranty for 3 years PART - C	
	Overall cost including CAMC - Total A+B+C	

CONTRACTOR