

INVITATION FOR TENDER FOR SUPPLY OF EQUIPMENT

The Tenderer must submit TECHNICAL and PRICE bids SEPARATELY in 2 clearly superscripted, sealed covers. All items shall be inclusive of all duties and taxes.

DUCTABLE SPLIT AIR CONDITIONER

Please send offers, ALONG WITH DESCRIPTIVE CATALOGUE/ BROCHURE. The validity of the bid should be at least four months (120 days) or more from the date of the opening of this tender. Please ensure that your quotation reaches not later than **04.12.2017 at 15:00 Hrs** at the following address:

**To
Head
School of Energy Science and Engineering
Indian Institute of Technology Kharagpur – 721 302, West Bengal, India**

Earnest money of **Rs. 35000/-** is to be deposited in the form of Account Payee Demand Draft in favour of IIT Kharagpur, payable at Kharagpur, India. Any bid which is not accompanied with an EMD shall be summarily rejected. Earnest money deposited will be forfeited if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender. No interest will be paid on the earnest money of the unsuccessful bidders.

Tender Reference	IIT/ES/DSAC/Head/2017-18/EQ-2, Dated: 06.11.2017
Price of Tender Document	NIL
Last Date and Time for submitting the tender document	04.12.2017 at 15:00 Hrs (Indian Standard Time)
Time and Date of Opening of Technical Bids	04.12.2017 at 16:00 Hrs (Indian Standard Time)
Place of Opening Tender	School of Energy Science and Engineering Indian Institute of Technology Kharagpur – 721 302, West Bengal, India
Address of Communication	As stated above
Contact Telephone Numbers	+91- 3222 - 260808
E-mail ID	schoolenergyscience@gmail.com

Air Conditioning of Research Scholars' Computer Room & Labs

1 AIR-CONDITIONING

DESIGN CRITERIA

1.1 The basis of design shall be as under

<u>Ambient conditions:</u>	<u>Summer</u>	<u>Monsoon</u>
	DBT – 105 °F (41 °C)	90 °F (32°C)
	WBT -- 83 °F (28 °C)	83 °F (28 °C)

Desired inside conditions to be within 79 ± 2 °F DBT ($26 \text{ °C} \pm 1.1 \text{ °C}$) with $60 \pm 5\%$ RH.

1.2 Lighting load considered: 1.0 watts per sq.ft

Occupancy & equipment load considered: 30 nos

1.3 Ventilation air considered: 10 cfm / Person OR 1.0 Air Change / Hour, whichever is higher.

1.4 Floor above is as exposed roof.

2. COOLING ESTIMATE

Estimated cooling loads are tabulated in table-2.

TABLE -2
PRELIMINARY COOLING ESTIMATE

HALL (mentioned in attached floor plan)	AC AREA (Sq Ft)	OCCUPANCY (PERSONS)	LIGHTING LOAD_(kW)	FRESH AIR (CFM)	CAPACITY (TR)	D/CFM
Room 13 & 13A	1460	30	1.5 kW	300	8.75 TR	3400
Room 14 & 15	1100	10	1.0 kW	200	8.75 TR	3400

3. PLANT SELECTION

Air conditioning of research scholars' computer room (Room no 13 & 13A) shall be done with **1 × 8.75 TR** and Labs (Room no: 14 & 15) shall be done with **1 × 8.75 TR** air cooled ceiling suspended ductable split unit system with single/multiple scroll compressors. The scroll compressor can operate efficiently on part load and there by substantial energy is saved. The outdoor unit is to be placed adjacent wall/roof of the common room as per the suit at site condition.

Ductable unit shall supply conditioned air through insulated (insulated by 13 mm thick Al. foil faced nitrile rubber) GI duct. Necessary volume control damper, grille shall be provided to meet the desired airflow. The duct support/ hanging arrangement shall be provided from the ceiling.

DETAILED TECHNICAL SPECIFICATIONS FOR

DUCTABLE SPLIT AIR CONDITIONER

1 Scope

- 1.1 Supply Installation, testing and commissioning of the split air-conditioners meeting in all respects the intents of the specifications. The supply of the units shall comprise:
- a) Outdoor unit
 - b) Indoor Unit
 - c) Refrigerant piping connecting the two and drain piping
 - d) Electrical wiring from the socket – outlet through the indoor and outdoor units with provision for local remote control.

2 Outdoor Unit

- 2.1 The outdoor condensing unit shall comprise compressor, condenser coil, condenser fan, refrigerant connections and a casing. The compressor shall be hermetic type scroll compressor resiliently mounted for quiet operation. The compressor drive shall be three phase motor refrigerant cooled and shall have an inbuilt over load protector. The unit shall be capable of frequent starting and stopping without causing any over load.
- 2.2 The condenser coil shall be a copper tube with aluminium fins. The tube diameter shall not be less than 10 mm with a wall thickness of 0.4 mm copper. Tube shall have aluminium fins adequately bonded through a process of mechanical expansion. The number of fins shall not exceed 520 per meter (13 per inch) and the number of rows in each case shall be for the specified output. The condenser fan shall be a multi-blade propeller type designed for low noise and directly driven by a totally enclosed fan motor. The refrigerant connections shall be brought out into plain stub ends.
- 2.3 All the components shall be enclosed in a casing formed from heavy gauge 1.6mm galvanized sheet steel totally rust inhibited.

3 Indoor Unit

- 3.1 The indoor unit shall be versatile and shall be capable of suspended from ceiling with simple site alteration. The unit shall consist of evaporator, fan and motor, evaporator coil, wherever shown in drawing. Additional drain tray, air filter, outlet for duct connection and controls shall be provided.
- 3.2 The evaporator fan shall be double inlet; double width centrifugal forward curved impellers statically and dynamically balanced. The impellers shall be mounted on either side of a double shafted 2/3 speed motor directly driving the fans. The fans shall be housed in a sheet steel a high impact ABS plastic enclosure which is acoustically treated. The evaporator coils shall be similar to the condenser coil and made of copper tube with aluminium fins and the refrigerant lines brought out to plain stub ends within the unit casing. All package air conditioner should have of the following controls.

High Pressure Cut Out.

Low Pressure Cut Out.

Protection for motor and Over load protector.

4 Installation

- 4.1 The outdoor unit shall be installed as decided by the Indian Institute of Technology- Kharagpur. The indoor unit shall be ceiling suspended as shown on drawings/ as per the requirement of client.
- 4.2 Refrigerant lines shall be inconspicuously and generally as shown in the drawings and as directed on site. The suction and liquid lines shall be bonded together and insulated with 6mm thick elastomeric tubing. All power wiring shall be drawn from the nearest socket outlet and shall include the control wiring, power wiring, on-off switch with speed controller.
- 4.3 All pipe sizing shall be done taking into account the length and rise.
- 4.4 A 12mm insulated drain pipe shall be provided as shown on the drawing and as directed on site.

5 Testing

- 5.1 The unit shall be tested for establishing the capacity and power consumption. Tests shall be carried out in accordance with IS 5141 – 1969 (revised up to date) computed results shall tally with specified capacity and power consumption figures furnished with the tender offer.
- 5.2 On completion of piping the system and the piping shall be tested using Nitrogen gas by raising the pressure to 1.5 times the working pressure and holding the test pressure for 3 hours.
- 5.3 Tests shall be carried out on
- a) the compressor and drive motor side
 - b) condenser side for heat rejection
 - c) Cooling coil for cooling capacity
 - d) Evaporator air volume
- 5.4 A test certificate from prototype factory tests will be acceptable.

6 Mode of Measurement

- 6.1 Each unit shall be measured as one item of work which shall consist of:
- i) Outdoor unit
 - j) Indoor unit
 - k) Refrigerant and drain piping (with insulation)
 - l) Electrical power control wiring, room thermostat and control panel
 - m) Refrigerant charge& oil
 - n) Erection
 - o) Commissioning and testing

7. REFRIGERENT PIPING.

7.1 Scope.

The scope of this section covers supply, installation of refrigerant piping & drain piping with insulation as specified here & as shown in the drawings.

7.2 Refrigerant copper Piping

- 16/18 gauge copper tubing shall be used to make connections to equipment's wherever required.
- Flare fittings e.g. flare nuts; tees, elbows, reducers etc. shall be of brass.
- The pipes and fittings shall be connected by means of welded joints. The connections to gauges, controls etc. (if any) shall be with soft copper tubing and flare fittings.
- Refrigerant piping routing shall be decided by Engineer – in – Charge.
- The refrigerant piping installation shall be as per drawing.

7.3 Drain Piping.

- All condensation drainage shall be pitched in the direction of flow to ensure adequate drainage with an adequate trap seal to prevent leakage / infiltration.
- Provide pitch of 20 mm per meter for a smooth drainage of condensate.
- Condensate drain piping fixing shall be as per drawing.
- The routing of Drain Piping shall be decided by Architect/ Engineer – in – Charge.
- The material for the drain pipe is GI.
- Drain piping supporting shall be as per drawing.

7.4 Suction Line Insulation.

The Suction Line shall be insulated with 19mm thick. Nitrile Rubber Insulation covered with aluminium foil (As per Specified with K Value of 0.027-0.029 K Cal/Hr.MDeg C at 0-16 Deg C)

7.5 Drain Piping Insulation.

The drain pipes shall be insulated with 25mm thick TF quality EPS insulation (density 16kg/cum) finished with 26 G al cladding.

7.6 Mode of Measurement.

- Refrigerant pipes with insulation shall be in linear measure along the centre line of the pipe including accessories, supports etc and paid for per RMT.
- Condensate drain pipes with insulation shall be in linear measure along the centre line of the pipe including accessories, supports etc and paid for per RMT.

8. LIST OF APPROVED MAKES OF EQUIPMENTS

1	Dx type Hi-wall split Units	DAIKIN / BLUE STAR / TOSHIBA/ VOLTAS/ CARRIER
2.	GI Sheet	TATA/ SAIL/ JINDAL
3.	Duct Insulation	K flex/ A flex/ Armacell

TEST READINGS

ITEM

TEST READINGS TO BE TAKEN AT THE TIME OF COMMISSIONING

AIR-COOLED OUTDOOR UNIT

Refrigerant pressures
Oil pressure
BHP consumed at 100% load

Ambient Temp

MOTOR

Voltage
Amperage

INDOOR UNITS

Entering/leaving Air Temperatures DBT/WBT
Air flow rates

SUPPLY & RETURN
AIR GRILLES

Air flow rates
Supply air DBT/WBT

SPACE
TEMPERATUTRES

DBT/WBT/RH

TECHNICAL DATA SHEET

Contractor should furnish technical data of the equipment and accessories offered by him as per the scheme and bill of quantities. Some sample technical data sheets are enclosed for the contractor to understand the expected technical data. Similarly the technical data for all other equipment are supposed to be enclosed with offer. Manufacturer's printed data sheet for all components should be enclosed along with technical data sheet.

Sl.No.	Description	Unit	Condition of services
	Indoor Unit / Evaporator Unit		
1	Unit no./model no.		
2	Manufacturer		
3	Operating weight	KG	
4	Overall dimension	Mtr	
5	Dimension of coil	Mtr	
6	Finned area	Sq. M	
7	No. of rows	Nos.	
8	Fins per cm	Nos.	
9	Tube Dia	MM	
10	Thickness of tubes	MM	
11	Fin Material		
12	Air quantity	M ³ /hr	
13	Fan outlet velocity	M/s	
14	No. of Blower	Nos.	
15	Dia. of Blower	MM	
16	Fan speed	RPM	
17	Total static pressure	MM WG	
18	Motor rating	HP	
19	Type of air filters / Thickness / No		

Sl.No.	Description	Unit	Condition of services
	Type & Make of Electrical items		
1	Electric starters		
2	Electric switches		

Sl.No.	Description	Unit	Condition of services
	Condenser Fan		
1	Type		
2	Size (Dia)	MM	
3	Air quantity	cfm	
4	BHP		
5	Offered motor HP		

Sl.No.	Description	Unit	Condition of services
	Compressor		
1	Type : Screw / Rotary / Scroll		
2	Make		
3	Model		
4	Refrigerant		

Sl.No.	Description	Unit	Condition of services
	Condenser		
1	Type		
2	Make		
3	Model		
4	Tube Material		
5	Tube thickness	Mm	
6	Tube diameter	Mm	
7	No. of tubes	Nos.	
8	Type of tubes / Finning		
9	Design Pressure		
10	Test Pressure		

BOQ of Ductable Split Air Conditioner

Sl No.	Description	Qty.	Unit	Rate Rs.	Amount Rs.
A. AIR-CONDITIONING SYSTEM					
1	<p>Supply and installation of Ceiling Suspended Air-cooled Air-conditioner with hermetic/semi-hermetic type scroll compressors of the following Capacity with single or Multiple Compressors and first charge of R22/ R134a/ R410a etc as per specification, including (1) Interconnecting refrigerant Copper piping with 13mm thick nitrile rubber insulation upto 15mtr distance (2) Electrical earthing& cabling (copper), suitable for operation in AC 415V 3-phase 50 cycles supply, from ODU & IDU to four pole MCB switches with encloser provided (3) Drain pipes of 25mm dia with 6mm thick armafex insulation to suitable drain point upto 10 m & (4) non return damper at IDU opening. Vendors are advised to visit the site before offering their price.</p> <p>5.5 TR and Air flow: 2200 CFM 8.75 TR and Air flow: 3400 CFM</p>	RO 2	Nos Nos		
2	<p>Supply and erection of GSS ducting with with necessary support & fittings & flexible connection if required as given in specification.</p> <p>22 G 24 G</p>	30 120	Sq. mt. Sq. mt.		
3.a	Supply, installation & testing of 19mm thick Al foil faced nitrile rubber (Class: O) and joint sealed with Al tape as per specification.	150	Sq. Mt.		
3.b	Acoustic Insulation of Duct with 25mm thick rigid board (48Kg/cu.mt) and covered with RP tissue paper & 26G perforated Aluminium sheet as per the spec	30	Sq. Mt.		
4.a	Aluminium Powder coated Grille for supply air with al collar damper	2	Sq. Mt.		

4.b	Aluminium Powder coated Grille for return air without al collar damper	1	Sq. Mt.		
4.c	Fresh air arrangement with GI vcd& al. louver.	2	Nos		
5	Duct Dampers at IDU Opening	1	Sq. Mt		
6	REFRIGERANT PIPING & FIRST CHARGE OF REFRIGERANT Supply, installation, testing & commissioning of Seamless heavy gauge Copper piping of following size duly insulated with 13mm thk. Nitrile Rubber Insulation covered with aluminium foil (As per Specified with K Value of 0.027-0.029 K Cal/Hr.MDeg C at 0-16 Deg C) . Even necessary supports, fittings, joints where ever required will be included.	30	Rmt		
7	Supply, installation, testing & commissioning of 25mm dia PVC pipe for drain with 6mm thick nitrile rubber insulation incase of drain point is more than 10m.	30	Rmt		
8	Staging for Out Door Unit Installation with painting (incase of MS structure).	50	Kgs		
9	Testing and Commissioning & 1 year free service	Lot		INCL ED IN PRICE	INCL ED IN PRICE
<u>CIVIL SCOPE</u>					
10	Making wall opening for passage in the wall/glass for ref & drain pipes,fresh air, cables & false ceiling cutting for duct support etc as per the marking at site by the AC vendor and making good of the same for all the indoor/ outdoor units.	1	Lot		
11	Air tight partition in the false ceiling with painting for conf. room indoor unit.	Ro	Nos		
<u>ELECTRICAL SCOPE</u>					
13	The incomer/ input power cable with cable tray if required for outdoor unit beyond 3.0meter from the outdoor unit.	RO	Rmt		
14	Earth pit for equipment earthing if required	RO	No		
TOTAL CARRIED OVER TO GENERAL SUMMARY					

GENERAL TERMS & CONDITIONS

PLEASE SPECIFICALLY INDICATE THE FOLLOWING POINTS IN YOUR QUOTATIONS AND COMPLY THE TERMS AS MENTIONED HEREUNDER:-

1. TENDERS ARE INVITED COMPLYING THE REQUIREMENT FOR TENDER AS DETAILED IN THE TENDER SPECIFICATION TO BE SUBMITTED IN THE COMPANY'S / FIRM'S LETTERHEAD NEATLY PRINTED / TYPED DULY SIGNED BY AUTHORIZED PERSON WITH THE SEAL OF THE BIDDERS. ALL ENVELOPES CONTAINING THE TENDER SHOULD BE PROPERLY SEALED. SEPARATE ENVELOPES SHOULD BE USED FOR TECHNICAL AND PRICE BID AND INDICATION TO THEIR EFFECT MAY PLEASE BE SUPERSCRIBED ON THE ENVELOPE.

THE FOLLOWING DOCUMENTS ARE REQUIRED FROM THE INDIAN AGENTS OF FOREIGN FIRMS:

1.1 FOREIGN PRINCIPAL'S PROFORMA INVOICE INDICATING THE COMMISSION PAYABLE TO THE INDIAN AGENT AND NATURE OF AFTER SALES SERVICE TO BE RENDERED BY THE INDIAN AGENT.

1.2 COPY OF THE AGENCY AGREEMENT WITH THE FOREIGN PRINCIPAL INDICATING THE NATURE OF AFTER SALES SERVICES, PRECISE RELATIONSHIP BETWEEN THEM AND THEIR MUTUAL INTEREST IN THE BUSINESS.

1.3 PLEASE ENCLOSE THE DOCUMENT(S) RELATED TO THE ENLISTMENT OF THE INDIAN AGENT WITH DIRECTOR GENERAL OF SUPPLIES & DISPOSALS (DGS & R) UNDER THE COMPULSORY REGISTRATION SCHEME OF MINISTRY OF FINANCE.

2. TECHNICAL CATALOGUE/LEAFLET SHOULD BE ENCLOSED WITHOUT FAIL. PROVIDE COMPLIANCE STATEMENT WITH RESPECT TO THE TECHNICAL SPECIFICATIONS MENTIONED ABOVE.
3. PLEASE CONFIRM WHETHER YOU ARE AUTHORISED TO QUOTE ON BEHALF OF YOUR PRINCIPALS AND IF SO, PLEASE ENCLOSE A COPY OF SUCH AUTHORISATION WITH YOUR QUOTATION.
4. **PRICE BIDS FOR FOREIGN FIRMS:** PRICES ARE TO BE QUOTED ON 'EX-WORKS' DULY PACKED OR ON "FCA/FOB" INTERNATIONAL PORT" BASIS AND ALSO INCLUDING AGENCY COMMISSION PAYABLE TO YOUR INDIAN AGENTS, IF ANY SHOWING CLEARLY THE FOLLOWING BREAK UP:-

- I) EX-WORKS PRICE
- II) PACKING & FORWARDING
- III) FREIGHT
- IV) ANY OTHER RELEVANT EXPENSES.
- V) TAXES PAYABLE BY THE INSTITUTE

INSURANCE WILL BE PAID BY OUR INSTITUTE SEPARATELY AND SHOULD NOT FORM PART OF THE QUOTED PRICE.

PRICE BIDS FOR INDIAN FIRMS: PRICES ARE TO BE QUOTED ON F.O.R., IIT KHARAGPUR, ON DOOR DELIVERY BASIS CLEARLY SHOWING THE BREAK UP.

5. **PERIOD OF VALIDITY:** BIDS SHALL REMAIN VALID FOR ACCEPTANCE FOR A PERIOD OF 120 DAYS FROM THE DATE OF OPENING.
6. INDIAN AGENTS ADDRESS AND PERCENTAGE OF AGENCY COMMISSION INCLUDED IN ABOVE F.O.B./EX-WORKS PRICE. (THIS WILL BE PAID TO THE INDIAN AGENTS IN INDIAN RUPEES ONLY AND NOT IN **FE**). PLEASE ENCLOSE COPY OF AGENCY AGREEMENT ENTERED INTO WITH YOUR

PRINCIPALS INDICATING THE NATURE OF AFTER SALES SERVICES OF INDIAN AGENTS, PRECISE RELATIONSHIP & MUTUAL INTEREST IN THE BUSINESS.

7. **MEASUREMENTS/WEIGHT:** NETT/GROSS OF THE CONSIGNMENT. IN CASE OF AN ORDER, YOU SHALL USE AIR WORTHY PACKAGE (AS APPLICABLE) DULY CERTIFIED WITH DOCUMENTS – PLYTO – SANITARY CERTIFICATE (AS PER QUARANTINE ORDER 2003).

8. **SCOPE OF SUPPLY:** SHOULD INCLUDE FREE INSTALLATION AND COMMISSIONING

9. **PAYMENT TERMS FOR FOREIGN FIRMS**

A) (I) 70% TOWARDS SUPPLY OF MATERIALS AT SITE.

(II) 20% TOWARDS INSTALLATION

(III) 5% TOWARDS SUCCESSFUL COMMISSIONING AND HANDING OVER WITH ALL TEST REPORTS AND AS BUILT DRAWING APPROVED BY IIT KHARAGPUR.

(IV) 5% TOWARDS RETENTION AMOUNT TILL THE COMPLETION OF DEFECTS LIABILITY PERIOD

A) BANK CHARGES ON LC/SD (WITHIN INDIA APPLICANT ACCOUNT AND OUTSIDE INDIA TO BENEFICIARY ACCOUNT).

PAYMENT TERMS FOR INDIAN FIRMS

A) (I) 70% TOWARDS SUPPLY OF MATERIALS AT SITE.

(II) 20% TOWARDS INSTALLATION

(III) 5% TOWARDS SUCCESSFUL COMMISSIONING AND HANDING OVER WITH ALL TEST REPORTS AND AS BUILT DRAWING APPROVED BY IIT KHARAGPUR.

(IV) 5% TOWARDS RETENTION AMOUNT TILL THE COMPLETION OF DEFECTS LIABILITY PERIOD.

B) ENSURE MENTIONING

(i) BANK DETAILS OF THE BENEFICIARY, VAT NO., SERVICE TAX NO. AND PAN NUMBER

(ii) FULL NAME AND ADDRESS OF THE BENEFICIARY ON WHOM ORDER HAS TO BE PLACED

10. WHETHER ANY EXPORT LICENCE IS REQUIRED FROM YOUR GOVERNMENT, IF SO, PLEASE CONFIRM WITH DETAILS.

11. COUNTRY OF ORIGIN OF THE GOODS IS TO BE MENTIONED.

12. THE INSTITUTE SHALL PROVIDE THE CONCESSIONAL CUSTOMS DUTY AND EXCISE DUTY EXEMPTION CERTIFICATE AS PER GOVT. NOTIFICATION NO. 51/96 CUSTOMS DATED: 23.07.1996 AND CENTRAL EXCISE DUTY EXEMPTION IN TERMS OF GOVT. NOTIFICATION NO. 10/97 – CENTRAL EXCISE DATED: 01.03.1997 AS AMENDED FROM TIME TO TIME.

13. **LIQUIDATED DAMAGES:** THE STORES SHOULD BE DELIVERED / DISPATCHED TO DESTINATION AND READY FOR OPERATION NOT LATER THAN THE DELIVERY DATE SPECIFIED. IF THE SUPPLIER FAILS TO DELIVER ANY OR ALL THE STORES OR PERFORM THE SERVICE BY THE SPECIFIED DATE, LIQUIDATED DAMAGES AT 1% PER WEEK OR PART THEREOF IN RESPECT OF THE VALUE OF STORES WILL BE DEDUCTED FROM THE CONTRACT PRICE SUBJECT TO A MAXIMUM OF 5%. ALTERNATIVELY, THE ORDER WILL BE CANCELLED AND THE UNDELIVERED STORES PURCHASED FROM ELSEWHERE AT THE RISK AND EXPENSE OF SUPPLIER.

14. **PATENT RIGHTS:** THE SUPPLIER SHALL INDEMNIFY THE PURCHASE AGAINST ALL THIRD PARTY CLAIMS OF INFRINGEMENT OF PATENT, TRADEMARK OR INDUSTRIAL DESIGN RIGHTS ARISING FROM USE OF THE GOODS OR ANY PART THEREOF IN INDIA.

15. ONLY THOSE BIDDERS WHO'S BIDS HAVE BEEN TECHNICALLY FOUND ACCEPTABLE WILL ONLY BE INVITED FOR PARTICIPATION IN THE PRICE BID.
16. THOSE BIDDERS WHO DO NOT RECEIVE ANY COMMUNICATION FOR PARTICIPATION IN PRICE BID OPENING MEETING MAY PRESUME THAT THEIR BID HAS NOT BEEN ACCEPTED BY THE INSTITUTE.
17. CONDITIONAL OFFER WILL NOT BE ACCEPTED.
18. LATE TENDERS I.E. TENDER RECEIVED AFTER THE DUE DATE AND TIME OF SUBMISSION AS MENTIONED ABOVE SHALL NOT BE ACCEPTED.
19. BIDDERS TO ENCLOSE THE FOLLOWING DOCUMENTS:-

A) CURRENT INCOME TAX AND SALES TAX CLEARANCE CERTIFICATES (VAT No.), SERVICE TAX NO. AND PAN NO.

B) BANKER'S SOLVENCY CERTIFICATE

C) SUMMARY OF AUDITED STATEMENT OF ACCOUNTS FOR THE LAST THREE YEARS TO BE ENCLOSED AND FINANCIAL HIGHLIGHTS AND THE KEY PERFORMANCE DURING THE LAST THREE QUARTERS TO BE ENCLOSED AS PER FORMAT:-

COMPANY'S KEY PERFORMANCE

DESCRIPTION	JAN. TO MARCH	APRIL TO JUNE	JULY TO SEPT.
GROSS REVENUE			
PROFIT BEFORE TAX			
PROFIT AFTER TAX			
RETURN ON INVESTED			
CAPITAL (ROIC)			

D) CUSTOMER SATISFACTION CERTIFICATE FROM ONE SUCH ORGANIZATION IS TO BE ATTACHED WITH THE TECHNICAL BID AND PRICE BID.

E) NAME AND ADDRESS OF MINIMUM THREE CLIENTS TO WHOM SUCH EQUIPMENT HAVE BEEN SUPPLIED SHOULD BE MENTIONED.

20. **WARRANTY / GUARANTEE:** THE PLANT 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 3 YEAR FROM THE DATE OF COMMISSIONING. ANY MANUFACTURING DEFECT FOUND DURING THIS 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 IIT KHARAGPUR. THE SECURITY DEPOSIT SHALL BE RETURNED TO THE TENDERER AT THE END OF THE GUARANTEE PERIOD OF 3 YEARS.

DURING THE GUARANTEE PERIOD THE SUPPLIER MAY STATE CLEARLY THE DETAILS OF THE PERIODIC CHECKS TO BE CARRIED OUT BY THEM ON THE WHOLE PLANT FOR TROUBLE FREE OPERATION.

21. TIME OF COMPLETION OF PROJECT: 8 WEEKS FROM THE WORK ORDER/PURCHASE ORDER
22. THE INSTITUTE DOES NOT BIND ITSELF TO OFFER ANY EXPLANATION TO THOSE BIDDERS WHO'S TECHNICAL BID HAS NOT BEEN FOUND ACCEPTABLE BY THE EVALUATION COMMITTEE OF THE INSTITUTE.
23. ALL TENDERS (UNLESS OTHERWISE SPECIFIED) ARE TO BE SUBMITTED / HANDED OVER TO **HEAD, SCHOOL OF ENERGY SCIENCE AND ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR - 721 302** AND ACKNOWLEDGEMENT TO BE OBTAINED.

IMPORTANT

1. IIT KHARAGPUR AUTHORITY MAY ACCEPT OR REJECT ANY OR ALL THE BIDS IN PART OR IN FULL WITHOUT ASSIGNING ANY REASON AND DOES NOT BIND ITSELF TO ACCEPT THE LOWEST BID. THE INSTITUTE AT ITS DISCRETION MAY CHANGE THE QUANTITY / UPGRADE THE CRITERIA / DROP ANY ITEM OR PART THEREOF AT ANY TIME BEFORE PLACING THE PURCHASE ORDER.
2. PROMPTLY MAKE ARRANGEMENTS FOR REPAIR AND / OR REPLACEMENT OF ANY DAMAGED ITEM (S) IRRESPECTIVE OF SETTLEMENT OF CLAIM.
3. IN CASE OF ANY DISPUTE, THE DECISION OF THE INSTITUTE AUTHORITY SHALL BE FINAL AND BINDING ON THE BIDDERS.
4. FOR ANY QUERY PERTAINING TO THIS BID DOCUMENT CORRESPONDENCE MAY BE ADDRESSED TO **HEAD, SCHOOL OF ENERGY SCIENCE AND ENGINEERING, IIT KHARAGPUR** AT THE ADDRESS MENTIONED ABOVE.

LAST DATE FOR SUBMISSION OF SEALED BIDS: 04.12.2017

- 1) PLEASE NOTE THAT THE INSTITUTE REMAINS CLOSED DURING SATURDAYS & SUNDAYS AND ALL SPECIFIED GOVERNMENT HOLIDAYS.
 - 2) FAX, E-MAIL TENDER WILL NOT BE ACCEPTED.
 - 3) THE GENERAL TERMS AND CONDITIONS AS STATED ABOVE RELATE TO SUPPLY OF STORES / EQUIPMENT /ASSETS ETC. AND FOR SPECIFIC SERVICE OTHER TERMS AND CONDITIONS OF THE INSTITUTE WILL APPLY.
-

Uploading Tenders (e-Publishing) on the Central Public Procurement Portal (CPPP)

Name of Work/Item of Procurement	Ductable Split Air Conditioner
No. of Covers	NA
Bid Validity in Days	120 days from the date of opening
Bid Opening Place	School of Energy Science and Engineering. IIT Kharagpur, West Bengal-721302,India.
Bid Submission Closing Date	04.12.2017
Bid Opening Date	04.12.2017
Tender Submission Fee (if any)	NIL
Estimated Tender Value (if any)	NA
EMD (if any)	₹ 35000/-

