



**NOTICE INVITING TENDER FOR COMPREHENSIVE ANNUAL REPAIR AND
MAINTENANCE OF AIR CONDITIONERS, WATER COOLER AND WATER
PURIFIER IN IIT-GOA**

BIDS INVITED FOR THE YEAR 2021-22

TENDER NO. NIT: IITGOA/C&EMD/2021/008

DATE: 09/04/2021

**INDIAN INSTITUTE OF TECHNOLOGY – GOA
AT GOA ENGINEERING COLLEGE CAMPUS
FARMAGUDI, PONDA
GOA-403401**



CONTENT

PART - A (TECHNICAL BID)

1 NOTICE INVITING TENDER	3
1.1 INTRODUCTION	3
1.2 PARTICULARS	3
1.3 ELIGIBILITY CRITERIA	4
PROFORMA-1(a)	5
2 INFORMATION TO BIDDER	6
2.1 SCOPE OF SERVICE	6
2.2 TERMS & CONDITIONS	10
2.3 GENERAL INSTRUCTIONS	13
2.4 SUBMISSION OF TENDER	14
2.5 EVALUATION OF BIDS AND AWARD OF WORK	14
3 UNDERTAKING BY THE BIDDER	16
ANNEXURE-A Details of Air Conditioners, Water Cooler and Water Purifiers Considered under AMC	17
ANNEXURE-B Scope of work under Comprehensive Annual Maintenance Contract for AC's	18

PART-B (FINANCIAL BID)

19



PART A (TECHNICAL BID)

1. NOTICE INVITING TENDER

1.1. INTRODUCTION

Indian Institute of Technology (IIT) Goa, here in after called IITG, invites sealed tenders from reputed service providers having requisite experience for repair and maintenance service of Air conditioner, Water Cooler and Water Purifiers in Govt./PSU/ Central Autonomous Bodies for Comprehensive Annual repair and maintenance of Air Conditioners, Water Cooler and Water Purifiers in IITG. Particulars of the work are as follows.

1.2. PARTICULARS

1.NIT No	IIT GOA/C&EMD/2021/008 DT. 09-04-2021
2.Name of work	Comprehensive Annual repair and maintenance of Air Conditioners, Water Cooler and Water Purifiers at IIT Goa
3.Location of work	1)Administration building, 2)640 Capacity Hostel, 3) Academic Blocks, 4) Laboratories and Faculty Cabins located in different buildings of GEC(IT building, Mining Building, Electrical Engineering and Mechanical Engineering Department) 5) Director Bungalow 6) Guest House present in Rajmudra and Tarangan Building 7) Mahalaxmi Bungalow 8) Estate Office in Portable cabins 8) Central Library.
4.Estimated Cost (Including GST)	Rs.4,82,000/-Only
5.Earnest Money Deposit	Rs. 9,640/-Only
6.Performance Guarantee	Rs. 24,100/-Only
7. Security Deposit	Rs. 24,100/-Only
8.Period of work	One Year from date of issue of the work order and extendable on satisfactory services.
9.Tender Fee	Rs. 500/- Only
10.Tender Basis and Mode	Two Stage (Technical Bid & Financial Bid)
11.Mode of Payment to IIT Goa (Tender Fee & EMD)	Demand Draft/Bank Guarantee in favour of IIT Goa payable at IIT Goa.(Cheque will not be accepted)
12. Date, Time & Venue of Pre bid meeting.	16.04.2021 at 11.00 AM, C&EMD Office
13. Closing Date & Time of receiving of bids.	30.04.2021 till 03.00 PM, C&EMD Office
14. Date & Time of opening of Technical Bid.	30.04.2021 at 03.30 PM, C&EMD office
15. Date & Time of opening of Financial Bid.	Will be intimated to qualified agencies.
16.Address of tender issue, submission and opening	Tender documents will be available on the site as stated: https://www.iitgoa.ac.in (Under tender Section) &CPP Portal. Tender submission & opening place: C & EMD OFFICE, IIT GOA
17. Website for full and updated information.	https://www.iitgoa.ac.in (UndertenderSection)&CPP Portal.



1.3 ELIGIBILITY CRITERIA

- 1.3.1 The bidder must be registered in appropriate class of work with Government organization like CPWD/PWD/MES or PSUs or those having experience in similar nature of works awarded by Government / Semi Government Organizations/ Government Funded Autonomous Organization/PSU.
- 1.3.2 Work Completion Certificate in respect of satisfactory completion of similar nature of works i.e. for Comprehensive Annual Repair and Maintenance Contract Services of Split type Air Conditioner, Water Coolers and Water Purifiers Units in Central Govt. / State Govt. / Central Autonomous Bodies/ Central PSU department during last 7(Seven) years ending 31.03.2020, as per pro forma 1(a). To be eligible, the bidder must have successfully completed similar work as follows-
- i. Three works each costing not less than 40 % of estimated cost.
Or
 - ii. Two works each costing not less than 60 % of estimated cost.
Or
 - iii. One work costing not less than 80 % of estimated cost.

Note: 1. Works completion Certificate should be issued by an officer not below the rank of Executive Engineer or equivalent. Mere work order shall not be considered as proof for works completion.
2. The estimated cost is 4,82,000/- (Rupees Four Lakhs Eighty Two Thousand Only). Similar works shall mean: Repair and Maintenance of Split Type Air Conditioners, Water Cooler and Water Purifiers.

3. Supply, installation, testing and commissioning of Air Conditioners/HVAC parts/Water Cooler/Water Purifiers will **NOT** be considered as similar nature of work.

- 1.3.3 The bidder must be registered with appropriate government authority as a bonafide business entity and must have GST registration certificate and Permanent Account Number of income tax.
- 1.3.4 The registrations and licenses should be valid during the execution phase. (Registration certificate of Central Govt. / State Govt./PSU)
- 1.3.5 Net Worth certificate from a chartered accountant (CA) to be furnished which should not be less than 15% of the estimated cost i.e. Rs. 72,300/-
- 1.3.6 Average annual turnover for the last three years of the bidder as per ITCC or profit & loss statement shall not be less than 50% of the estimated cost (i.e. Rs. 2,41,000/-), not having incurred loss in more than two years, during last 5 years ending 31 Mar 2020.
- 1.3.7 The agencies should enclose the following
- 1. GST Registration
 - 2. PAN
 - 3. EPFO Registration Certificate
 - 4. ESIC Registration Certificate
 - 5. Registration under CPWD/PWD/MES/PSU/Other



PROFORMA- 1(a)

List of Similar nature of Work (Completed)

Sr No	Name of the work with brief particular thereof	Date of Commencement	Date of Completion as per work order	Actual Date of Completion	Contract Amount	Name of Client, contact no with complete address

Add Extra Sheet if Required

1. Seal of the company/contractor:
2. Signature of the contractor
(or his authorised person):
3. Name of Signatory:
4. Designation:
5. Date:

Note: Original or self-attested copies of work order & completion certificates **from client** shall be attached for each work without which the experience will not be counted.



2. INFORMATION TO BIDDER

2.1. SCOPE OF SERVICE

- 2.1.1 All-inclusive annual maintenance services (AMC services) of Split unit A.Cs, water purifiers & water coolers (Details as per Annexure-A) shall include providing routine maintenance services, maintenance pertaining to complaints as and when they occur in Split Air conditioners/water coolers /water purifiers. AMC services shall include supply of all material, spares, replacement /repairs of compressor from OEM's, supply and charging of all kinds of refrigerants, air filter, electrical parts (refer Annexure-B), servicing, overhauling, greasing, starting relay, overload protector, wiring repairs, motor rewinding with bush and shaft, tapes including handling charges, blower motor, outdoor fan motor, remote set repairs, digital scanner, piping, insulation and spares of outdoor/indoor units, PCBs and sensors replacement etc., complete in all respects, for ensuring the desired levels of cooling in ACs and water coolers and proper purification in case of water purifiers. The rates quoted for the AMC services shall be inclusive of all taxes and duties as applicable and the cost of transportation, freight, insurances etc.
- 2.1.2 The contractor shall co-ordinate with the Engineer-in-Charge and prepare a schedule for carrying out the maintenance work of air conditioners, water cooler and water purifiers as described from point no. 2.1.4 to point no. 2.1.6.
- 2.1.3 Servicing of the Air Conditioners, Water Cooler and Water Purifiers should be carried out by an experienced HVAC technician (not less than five years) with minimum qualification of ITI in air conditioning.
- 2.1.4 **Comprehensive Annual Maintenance/servicing of Split Air Conditioning machines: -**
- 2.1.4.1 **Brief description of Dry Servicing (once in every quarter) of the Air Conditioner Unit:**
- a) Dry servicing of Indoor unit includes proper dismantling and cleaning (using a dry cotton/muslin cloth) of 1) Front cover/panel, 2) micro Air Filters, 3) the vanes and louvres of the Indoor unit.
 - b) Cleaning of evaporator coils and micro filters with a high pressure vacuum cleaner.
 - c) Re-assembling the 1) Front cover/panel, 2) Air Filters, 3) Horizontal sweeper of indoor unit.
 - d) Dry Servicing of outdoor unit includes proper dismantling of 1) Top cover 2) Discharge Grill, 3) Front cover, 4) Outdoor Fan and 5) Fan motor frame.
 - e) All the dismantled parts are to be cleaned with a dry cotton/muslin cloth.
 - f) Coils and outdoor unit base must be cleaned with a high pressure vacuum cleaner.
 - g) Re-assembling of 1) Top Panel, 2) Discharge Grill, 3) Front Panel, 4) Outdoor Fan and 5) Fan motor frame once the cleaning is done.
- 2.1.4.2 **Wet Servicing of Air Conditioner unit will be done as and when required/asked for as follows:**
- Brief description of Wet servicing of indoor unit of split AC.**
- a) Note the input voltage, current drawn by the machine and thereafter disconnect the supply.
 - b) Proper dismantling and cleaning of all indoor unit parts such as front panel, micro filters, middle panel, louvres and vanes, blower motor, swing motor etc. with clean dry cloth (preferably cotton or muslin cloth)
 - c) Cover the PCB box and other electrical connections with polythene or bubble sheet to prevent water splashing.
 - d) Once all parts as mentioned in Point 'b' are removed, indoor unit should be covered with a proper waterproof servicing jacket with drain tail/tube. The drain tail should be kept in a bucket to avoid flooding of water on the floor.
 - e) Once jacket is fixed, the coils, fins and blower of the indoor unit must be cleaned with appropriate quality of detergent and high pressure water jet pump.
 - f) While performing the above procedure care should be taken so that no damage is caused to the indoor unit PCB, motors and other electrical connection.



- g) The drain tail attached to the servicing jacket and bucket arrangement should be used to dispense water collected during the above process (any water spilled on the floor must be cleaned).
- h) Once the cleaning of indoor unit is done with water jet, all the wet parts, water droplets are to be wiped out with dry cloth and the indoor unit should be dried with hot air blower.
- i) Once the above process is completed indoor unit should be reassembled and tested in presence of Engineer in-charge. The current drawn by the motor should be noted. If the unit does not function properly then the vendor should perform proper rectification at his/her own cost.

Brief description of wet servicing of outdoor unit of split AC

- a) Before dismantling of any parts the voltage, current, gas pressure of the outdoor unit must be checked and noted down and same should be done after the cleaning of the outdoor unit is done.
- b) Proper dismantling of the Outer Cover, Fan Blade, Motor, Motor Stand etc. and cleaning with dry/wet cloth (preferable a cotton or a muslin cloth)
- c) Once the dismantling of aforesaid parts are done, the outdoor unit PCB box and other electrical connections are to be covered with a proper polythene bag or a bubble sheet in order to prevent any damage caused due to spillage of water.
- d) Then the condenser coils and condenser unit should be cleaned with suitable detergent and high pressure water jet.
- e) While performing the above procedure care is to be taken so that no damage is caused to the outdoor unit and its electrical connections.
- f) All the water collected during cleaning of the parts of the outdoor units (as mentioned in b) and d)) should be safely disposed of.
- g) Then the outdoor unit should be tested in presence of Engineer in-charge. If the unit does not function properly then the vendor should perform proper rectification at his/her own cost.

2.1.4.3 Supply and Replacement of compressor with gas charging in Air Conditioners (as and when required) – This includes checking the AC compressor thoroughly to identify the fault such as burnt compressor winding, bursting of terminal box, failure of hermetical sealing etc. which would necessitate replacement of the compressor and bringing the same to the knowledge of the Engineer in charge. After the consent of the engineer in charge, the contractor shall arrange to supply a new compressor of similar type and capacity from OEM and replace the faulty one including the supply and charging of the refrigerant of similar type. The faulty compressor should be handed over to IIT Goa. The new compressor guarantee/warranty as offered by the manufacturer/vendor should be in the name of IIT Goa. However, the contractor shall arrange replacement/repair of the compressor if it fails within his work order time or extended time granted thereto.

2.1.4.4 Supply and replacement of the main PCB of Indoor or outdoor units of AC (as and when required)- This includes physical verification of the main PCBs for any visible damage, checking the glass fuses and GD tubes or other protective device blowing out, testing the PCBs with multi-meter, checking the input/output voltages at various terminals, checking the other electrical or electronic components such as transformers, ICs, thyristors and other semiconductor devices in the PCB and ensuring that the card is beyond repair and needs replacement with a new card, bringing the same to the knowledge of the Engineer in charge. After the consent of the engineer in charge, the contractor shall arrange to supply a new card and replace the same in the indoor or outdoor unit as the case may be. The faulty card should be handed over to IIT Goa. The new PCB should be guaranteed for six months. The contractor shall replace it free of cost if it fails within six months.



- 2.1.4.5 **Dismantling of Air Conditioners (as and when required)**- This includes removing the split Air Conditioner from an existing location as per the instruction of the Engineer-in-Charge and shifting it to the new location or to the store for future use /reuse. After receiving the instruction, the contractor has check the machine for proper functioning, note down the parameter like voltage, current and room temperature etc. to ensure that the machine is in good working condition. In case of any defect in the machine, the same should be reported to the Engineer -in-Charge. Before dismantling care should be taken to lock the refrigerant in the indoor and outdoor units. The contractor has to take necessary precautions to dismantle the indoor unit, copper piping and electrical wiring in-between, outdoor brackets (stand) and indoor mounting plates etc. safely without damaging any component thereof. The hole in the wall used for passage of the copper piping should be sealed with cement mortar, plastered and painted to match with the wall colour. After dismantling, the contractor shall arrange to shift the machine to the new place of installation or to the store as per the instruction of the Engineer-in-Charge. Damage, if any, during the dismantling of the machine, the same should be made good by the contractor at his own cost.
- 2.1.4.6 **Shifting and (re)installation of dismantled/new AC (as and when required)**- This includes shifting the dismantled Air Conditioner/new A.C machine from the store to the place of use as per the instruction of the Engineer-in-charge, making of suitable size hole on the wall by circular drilling, installing indoor and outdoor units on clamping plate and brackets as required, inter-connecting the indoor and outdoor units by copper piping, PVC cable, drain pipe etc. and putting thermal insulation. After installation, the machine should be checked for proper functioning and cooling. The electrical and thermal parameters should be noted and handed over to the engineer-in-charge. All material of the AC, such as indoor, outdoor unit, copper piping of available length, outdoor brackets, indoor mounting plate etc. shall be provided by IIT Goa. All consumables like anchor bolts, clamps, screws tools, additional copper piping and tubular thermal insulation, tackles etc. shall be in the scope of the contractor. The refrigerant top-up, if required shall be done by the contractor.
- 2.1.4.7 **Supply and replacement of Copper Refrigerant piping with insulating sleeves (as required)**- Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for high wall split AC, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of 19mm thickness for Suction and Discharge lines(soft drawn copper of nominal size 6.4mm, 9.5mm,12.7mm,15.86mm and tube thickness 1.2mm)with all accessories etc. as required.
- 2.1.4.8 **Supplying and installation of flexible PVC drain pipe (as and when required):** This includes supplying PVC drain pipe of suitable size and replacing the old damaged one with the new one. The clogging of the drain plug in the indoor unit bottom tray should be cleared before replacement of the pipe.
- 2.1.4.9 **Supply and full charging of all types of refrigerants in Air Conditioners (as and when required):** - This includes inspection of the AC indoor unit, outdoor unit, refrigerant copper pipe lines, all joints etc. for detection of the leakage and ascertaining the reason of escape of the refrigerant, rectification of the leakage, pressuring the refrigerant line with nitrogen gas and doing leak test to ensure that there is no further leak, vaccumization of the system, supplying the specific refrigerant used in the Air Conditioners such as R12, R22, R32, R410a etc. as required and charging the refrigerant in full quantity in the compressor in ACs of various capacity (1T, 1.5T, 2T). Before re-charging, the Engineer-in-charge should be informed. After gas charging, the machine should be run and checked for proper cooling.
- 2.1.4.10 **Supply and partial charging (topping up) of all types of refrigerants in Air Conditioners (as and when required):** - This includes inspection of the machine indoor unit, outdoor unit,



refrigerant copper pipe lines, all joints etc. thoroughly for detection of the leakage and ascertaining the reason of reduced amount of the refrigerant, rectification of the leakage, checking of existing gas pressure, charging additional amount of refrigerant to bring the gas pressure to the desired value. After refilling, the AC should be checked for proper cooling and amperage.

2.1.5 Comprehensive AMC of Water cooler: - This includes the following works:

- 2.1.5.1 Cleaning of water storage tank, waste water basin, drain line, fins and tube of condenser, condenser fan, dry filter and evaporator coils etc. **once in a month.**
- 2.1.5.2 Checking the Water Cooler in case of non-functioning, identifying the fault and repair/replacement of defective parts including its supply, repair of any leakage in gas and water line, repair/replacement of any defective electrical components such as wires, fan motor, blade, fan capacitor, damaged plug point etc. as and when required so as to keep the machine in good working condition all the time.
- 2.1.5.3 **Supply and Replacement of compressor with gas charging of water cooler (as and when needed):** - This includes checking the water cooler compressor thoroughly to identify the fault such as burnt winding, bursting of terminal box, failure of hermetical sealing etc. which would necessitate replacement of the compressor and bringing the same to the knowledge of the Engineer in charge. After the consent of the engineer in charge, the contractor shall arrange to supply a new compressor of similar type, capacity and replace the faulty one including the supply and charging of the refrigerant of similar type. The faulty compressor should be handed over to IIT Goa. The new compressor guarantee/warranty as offered by the manufacturer/vendor should be in the name of IIT Goa. However, the contractor shall arrange replacement/repair of the compressor if it fails within his work order time or extended time granted thereto.
- 2.1.5.4 **Supply and full recharging of refrigerant (R134a) in Water coolers (as and when needed):** - This includes inspection water cooler compressor, refrigerant copper pipe lines, all joints etc. for detection of the leakage and ascertaining the reason of escape of the refrigerant, rectification of the leakage, pressuring the refrigerant line with nitrogen gas and doing leak test to ensure that there is no further leak, vacuumization of the system, supplying the specific refrigerant (R 134a) used in water cooler and charging the refrigerant in full quantity in the compressor. Before re-charging, the Engineer-in-charge should be informed. After gas charging, the water cooler should be run and checked for proper cooling. The amperage of the machine should be within its rated current.
- 2.1.5.5 **Supply and partial recharging of refrigerant (R134a) in Water coolers (as and when needed):** - This includes inspection of the machine, refrigerant copper pipe lines, all joints etc. thoroughly for detection of the leakage and ascertaining the reason of reduced amount of the refrigerant, rectification of the leakage, checking of existing gas pressure, charging additional amount of refrigerant to bring the gas pressure to the desired value. After refilling, the water cooler should be checked for proper cooling and amperage.

2.1.6 Comprehensive AMC of Water Purifiers shall include the following works: - This includes the following

- 2.1.6.1 Cleaning of filters and other internal parts once in every month.
- 2.1.6.2 Replacement of filter candles, microporous filter, iron remover, activated carbon unit once in every six months.
- 2.1.6.3 Replacement of any spare parts/components such as ultra violet lamp, indicators, water flow valves and any other parts/spares as and when required

NOTE: It is to be noted by the contractor that while performing the above mentioned maintenance work any damage caused to the Air Conditioner or its parts or to any asset that belongs to IIT Goa cost of which shall be recovered from the contractor's bill



2.2 TERMS & CONDITIONS

- 2.2.1 AMC will be for a period of twelve month commencing from the date of the Agreement on which AMC comes into force. This can be cancelled unilaterally by the Competent Authority of IIT Goa, whenever the service is not found to be satisfactory or up to the mark. This institution also reserves the right to shift and reinstall any of the machines to any room and it will continue to be covered under AMC by the AMC provider. The contract may be renewed for further period at the discretion of the IIT Goa based on satisfactory service provided by the agency on mutual agreement.
- 2.2.2 At present there are 159 nos. of Air Conditioners units (61 No. of 1 ton, 25 No. of 1.5 tons and 73 No. of 2 ton) of different brands such as “Bluestar, Voltas, Carrier Media, LG, Videocon, Onida, Lloyd etc.” 21 numbers of Water Cooler of make BlueStar and 38 numbers of Water Purifiers (Details given in Annexure-A) which are considered under the AMC. The actual number of units under AMC services may either increase or decrease at the discretion of the authority. The successful bidder shall be required to take additional units under the AMC contract as directed by the department and quoted rates of the successful bidders shall be applicable for all necessary repairing works and AMC services for the additional units considered under the AMC services.
- 2.2.3 The firms are required to forward the following details with the quotation:
- List of certified HVAC technician along with valid qualification and requisite experience
 - List of Govt., Semi Govt., Autonomous, PSUs Organizations to whom maintenance works & services for ACs were rendered during the last seven years with copies of orders & satisfactory completion certificate.
- 2.2.4 The rates accepted will remain firm and fixed during the period of the contract and IIT Goa will not entertain any claim for the upward revision/increase of these rates or for payment of any additional charges on any ground whatsoever.
- 2.2.5 In the case of repair/replacement of parts in the ACs, only genuine spare parts, conforming to the relevant Indian Standards (ISI marked) or as approved by the department, will be used. In the case of replacement of compressors, the warranty card, indicating Compressor No., make date of purchase, etc. will be deposited with IIT Goa (C&EMD Section). The defective parts removed/replaced shall be deposited with the engineer-in-charge of IIT Goa.
- 2.2.6 The firm shall be solely responsible for any negligent acts of their personnel and shall indemnify IIT Goa against any loss or damage to its property or injury/death to its employees due to such acts.
- 2.2.7 IIT Goa shall not be a party to any dispute between the firm and the personnel deployed by them.
- 2.2.8 The complaint regarding malfunctioning of Air Conditioners, Water Cooler and Water Purifiers will be lodged through Telephone/Mobile Phone/E-mail, therefore it is the responsibility of the vendor to provide a valid telephone/mobile phone number and a valid e-mail ID etc. In case of any change in the contact details already furnished by the contractor, the same is to be informed the Engineer-in-charge immediately.
- 2.2.9 Once the complaint is lodged, the machine should be attended and repaired/made good as quick as possible but not beyond 48 hours of time. In case of any major component failure such as compressor, PCBs, blower motor, the machine should be repaired and made good as quick as possible but not beyond five days of time. The time period in both the cases will be reckoned from the time of lodging of complain. The decision of engineer-in-charge of IIT Goa regarding the time limit of repair shall be final and binding on the contractor.
- 2.2.10 If the contractor fails to rectify the machine within 48 hours or within five days of time in case of major component failure as the case may be, as per clause 2.2.9 stated above, then penalty of Rs.300.00 (three hundred rupees) per day will be levied on the contractor for maximum of 7 (seven) days.
- 2.2.11 If the contractor fails to attend and/or rectify the complaint within given time frame (as mentioned in 2.2.9) then IIT-Goa reserves the right to get the work done by other firms and recover such expenses from the contractor’s bill.
- 2.2.12 No Air Conditioner/Water Cooler/Water Purifiers units or parts thereof shall be taken out of IIT Goa campus by the contractor. All works are to be carried out within the premises of the Institute.



However, in case it is absolutely necessary for the machine or any part thereof to be taken out of the campus for repair, approval from the Engineer-in-Charge/gate pass of IIT Goa is to be obtained by the contractor. However, no extra cost whatsoever, shall be paid to the contractor for such repair work.

- 2.2.13 The contractor shall maintain sufficient stock of spare parts (20% of total units as mentioned in 2.2.2) at the site in order to avoid delay in repair during the period of contract.
- 2.2.14 The contractor shall keep some spare units of Air Conditioners, Water Cooler and Water Purifiers at site for ready replacement in critical locations in case of any major break down of the machine to avoid interruption in the service. Such units should be brought-in by the contractor with proper gate pass/entry document bearing the machine make, capacity, sr. no etc. and should be acknowledged by the Engineer-in-charge of IIT Goa. The contractor will take back the machine so brought in after the closure of the work.
- 2.2.15 A complaint register shall be maintained by the contractor indicating the date of complain, nature of complain, date of repair, spares used etc. under the control of the Engineer-in-Charge to whom the HVAC technician would report to.
- 2.2.16 The contractor shall maintain the history sheet of equipment under maintenance contract with details such as location, make, model, tonnage, storage capacity etc. Details of minor/major, wet/dry servicing, repair/replacement, cleaning job undertaken shall be entered in the history sheet.
- 2.2.17 Repair/Replacement of the compressor under warranty/guarantee will be carried out by the contractor without any cost/liability to the Institute. In such cases only gas charging cost will be paid to the contractor as the compressor would be supplied by the manufacturer/vendor who supplied the machine during purchase.
- 2.2.18 It will be the responsibility of the contractor to provide the technician/helpers deployed by him with necessary safety gears/tools/tackles/ladders, trolleys etc. for performing the maintenance work safely and at heights.
- 2.2.19 Any defective parts of the machine which require replacement shall be of same quality/manufacturer/standard as that of the original. In case it is found that the parts/spares of inferior quality are used in repair, the same will be replaced free of cost.
- 2.2.20 Merely submission of Quotation does not entitle the firm to claim for awarding the AMC even if he has quoted the lowest rates. The AMC will be awarded to the eligible firm only after all the formalities as per the terms and conditions are complied with and valid documents are produced to the satisfaction of this office.
- 2.2.21 All quotations in the prescribed format should be submitted before the time and date fixed for the receipt of quotations. Quotations received after the stipulated time and date are liable to be rejected.
- 2.2.22 The bidder must ensure that the conditions laid down for submission of offers detailed below are correctly and completely fulfilled. The quotations found to be deficient in any respect shall be summarily rejected. Similarly, conditional offer and offers with terms and conditions inconsistent with those contained in this document shall be rejected.
- 2.2.23 It shall be the responsibility of the contracting firm to handover the machines in good working condition at the end of the contract period to the IIT Goa, failing which the firm shall be liable to pay liquidated damage to the IIT Goa as deemed fit by the competent authority of IIT Goa.
- 2.2.24 The AMC service provider is required to maintaining the servicing cards for each air conditioners units on which full signature of the person operating the machine shall be taken after each servicing.
- 2.2.25 Any failure on the part of the AMC service provider to maintain the machine satisfactorily and delay on the part of the firm to repair the defects / replace defective parts for any reason including non-availability of the genuine spares /parts shall be deemed as a breach of terms and condition of this AMC and shall entail deduction of such amount of penalty as mentioned in the clause 2.2.10 or 2.2.11 at the discretion of Engineer in charge of IIT Goa. In case the contractor fails to carry out the repair work properly with due diligence, the Competent Authority of IIT Goa, at any time within the stipulated time period, may terminate the contract/ work order.



- 2.2.26 IIT Goa may, at its discretion, withdraw any machines from the scope of the contract at any time during within the period of contract and in such case the payment will be made on pro-rata basis for the actual period of service rendered by the contractor. Similarly, IIT Goa, at its discretion, may include/add more number of machines in the scope during the period of the contract and in such case, the payment will be made on pro-rata basis for the actual period of service rendered by the contractor.
- 2.2.27 The contractor shall deploy engineers and technicians having sufficient knowledge and experience in the maintenance of air conditioners, water coolers and water purifiers. Name of at least two technicians with details of their qualification having more than 5 years of experience in the relevant field must be submitted in the technical bid.
- 2.2.28 All defective / damaged components replaced during repair/maintenance should be to returned to the Engineering division of IIT Goa. The new parts / components / sub-assemblies used for repair / replacement by the contractor should be same and original make / equivalent or higher make & version and functional capability as originally available in the systems.
- 2.2.29 The contractor should indemnify IIT Goa, consequent on this works contract. The contractor shall be liable, in accordance with the Indian Law and Regulation for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claim arising there from on IIT Goa during the period of execution of the works and also due to ancillary equipment's under the supervision of the contractor in so far as the latter is responsible.
- 2.2.30 No debris shall be left over during the maintenance works under each item on any day. An area for 'Debris bins' will be identified on the request of contractor for collection of debris generated on day to day basis. The Debris from debris bin shall be cleared as and when required.
- 2.2.31 Police Verification Certificate of all workers shall be obtained by Contractor.



2.3 GENERAL INSTRUCTIONS

- 2.3.1 Bidding documents are to be obtained electronically through websites: <https://www.iitgoa.ac.in> (Under tender Section) & CPP Portal. The tender fee in the prescribed mode must accompany the tender documents issued electronically at the time of submission.
- 2.3.2 This bid document shall be read in conjunction with GCC (General Conditions of Contract) laid down in the CPWD manual and the applicable specifications of CPWD. Unless otherwise mentioned, the CPWD GCC and relevant specification shall be followed.
- 2.3.3 The bidder shall visit and inspect the site and obtain all information on his own responsibility and at his own cost, that may be necessary for the purpose of quoting and submitting the tender. No excuse or ignorance as to the site conditions and local information shall be accepted after award of the work. Access to the site for inspection will be granted by the Engineer-in-charge on all working days within working hours.
- 2.3.4 The **water** for servicing of Air Conditioners, Water Coolers, Water Purifier and **electricity** for operating hand tools like drill machine, grinder etc. shall be given by IIT Goa **free of cost** where ever available. However, the contractor has to arrange of his own to take the water, electricity from the nearest available source.
- 2.3.5 All clarifications about the tender shall be sought by bidders before pre- bid meeting i.e. till 03:30 pm 16.04.2021 by emailing their queries to je.electrical@iitgoa.ac.in (cc: estate@iitgoa.ac.in). The bidders may make suggestions which shall be considered during the Pre-bid Meeting. No queries shall be entertained after notification of replies to noteworthy queries received till the date of pre-bid meeting.
- 2.3.6 Completion certificate issued by Competent Authority (not below the rank of Executive Engineer) accompanied with the copy of the work order will be considered as credential only.
- 2.3.7 The bidding document (consisting of the schedule of quantities of various types of items to be executed, the set of terms and conditions of the contract), Corrigendum, Clarifications to Pre-bid queries etc. can be downloaded from the website: <https://www.iitgoa.ac.in> (Under tender Section). Corrigendum, if any, shall be published only on these websites. The Institute shall not be responsible for any delay/difficulties/inaccessibility of downloading facility etc. for any reason whatsoever.
- 2.3.8 All costs, charges & expenses that may be incurred in connection with the submission of the tender shall be borne by the bidding firms and IIT Goa accepts no liability what so ever thereof.
- 2.3.9 Rates quoted by the bidders shall be inclusive of GST (Goods and Services Tax-Central, State and Interstate) and all applicable taxes. Income Tax and any other statutory deductions like labour cess, education cess etc. will be deducted from the bills as per prevailing rules.
- 2.3.10 Exemption to IIT-Goa against any tax/ duty/ fee/ surcharge/ charge/ cost, if any, found applicable or sought later from IIT-Goa after the award of the work shall be passed on to IIT-Goa by the contractor without any dispute.
- 2.3.11 IIT-Goa reserves the right to reject any or all of the bids without assigning any reason.
- 2.3.12 Bid Validity: Bid shall remain valid for **minimum 120 days** from the date of Uploading.
- 2.3.13 Firm Price: Bidder's quoted Rates/Prices for executing the activities under the Contract shall remain firm till the period of contract/agreement & shall not attract any escalation under any circumstances whatsoever.
- 2.3.14 If any information furnished by the bidder is found as false/fabricated, then his bid will be rejected and treated as cancelled. Further if such manipulation is detected at any stage after signing of the contract, it would lead to termination of the contract besides forfeiture of Earnest Money Deposit and liabilities towards prosecution. In such cases the bidder will be debarred from participation in future tendering process in IIT Goa for next 05 (Five) years.
- 2.3.15 Earnest Money Deposit (EMD) of Rs. 9,640/- shall be enclosed with the Technical Bid. Bid without EMD shall be summarily rejected.
- 2.3.16 Refund/Conversion of Earnest Money Deposit: The Earnest Money received shall be refunded to the unsuccessful bidders without any interest upon executing the Contract Agreement by the successful



bidder. The Earnest Money Deposit 2% of the estimated amount i.e (Rs. 9,640/-) of the successful bidder shall be retained and converted into part of Security Deposit.

2.3.17 Forfeiture of Earnest Money Deposit: Earnest Money Deposit will be forfeited in any of the following cases:

- The bidder withdraws/modifies his tender during the period of Bid Validity.
- The bidder, in case of tie between lowest bids, refuses to submit revised offer.
- The bidder does not accept the correction of arithmetical errors of his tender.
- The bidder does not submit the performance guarantee within specified time after issue of work order.
- Fails to commence the work after issue of work order within the specified time.

2.4 SUBMISSION OF TENDER

2.4.1 The sealed tenders shall be received at the C&EMD Office, IIT Goa, Goa College of Engineering Campus, Farmagudi, Ponda Goa-403401 up to 17:00hrs, 30/04/2021. Tenders received after the due date and time shall not be considered.

2.4.2 Tenders shall be submitted in a sealed Master Envelope superscribed as “Comprehensive Annual Maintenance Contract- Split Type Air Conditioners, Water Cooler and Water purifiers” with the NIT No. IIT GOA/C&EMD/2021/008 DT. 09-04-2021, containing three separate sealed Envelops, each clearly super scribed as “Tender Fee and EMD “, “Technical Bid” and “Financial Bid” respectively, in the following manner:

2.4.3 Envelope-1 (Tender FEE & EMD) will consist of:

1. Tender Fee for ₹ 500/- (Non-refundable), in the prescribed mode or proof of payment thereof
2. Earnest Money Deposit of requisite amount, in the prescribed mode or proof of payment thereof.

2.4.5 Tender without payment of Earnest Money Deposit shall be summarily rejected.

2.4.6 Envelope-2 (Technical Bid) will consist of:

1. Covering letter of the offer signed by firm’s authorized signatory with name and seal.
2. Documents establishing the identity and authenticity of the bidder/bidding firm
3. Self-attested copies of all the documents in support of eligibility of bidder.

2.4.7 Envelope-3 (Financial Bid) will consist of: The complete tender document, each page duly signed and stamped by the bidder as a token of acceptance of the terms and conditions of the contract, Declaration by Bidder and Financial Bid duly filled-in, signed by the bidder or his/her authorized signatory and stamped.

2.5 EVALUATION OF BIDS AND AWARD OF WORK

2.5.1 The Envelop-1 containing Tender fee and EMD and Envelop-2 containing the Technical Bid of bidder will be opened on the specified date and time of opening, one after the other, at the C&EMD Office, IITGOA, GEC Campus, Farmagudi, Ponda Goa. The Envelop-1 shall be opened first to confirm that the bidder has paid the tender fee and the EMD. If there is any deficiency in the payment of Tender fee or EMD, the bid may be rejected. The Envelop-2 i.e. the technical bid will be opened next, if the bidder has paid the Tender fee and EMD.

2.5.2 Date, time and place of opening of Financial Bid shall be informed to the technically qualified Bidders after evaluation of Technical Bid

2.5.3 Bids shall, first be checked for payment of Tender Fee and Earnest Money Deposit. Only those bids found to have duly paid/submitted Tender Fee and Earnest Money Deposit shall be considered for technical evaluation.

2.5.4 Evaluation of Technical Bid: The bids received will then be assessed on the basis of eligibility criteria mentioned at para 1.3 of Notice Inviting Tender. Bids found not meeting the eligibility criteria shall be considered non-responsive and shall be rejected.



- 2.5.5 IIT Goa reserves the right to revert back to individual bidders for further clarifications/queries on the Technical Bid. The bidder has to respond to the queries within a stipulated time of 72 hours from the time when clarifications/queries are reverted back to the bidder.
- 2.5.6 The Financial Bid or the Revised Financial Bid, as the case may be, will be opened on the specified date and time as intimated to the technically qualified bidders.
- 2.5.7 EVALUATION OF Financial Bids: The Financial Bid should contain the complete bid document with duly filled in Schedule of Financial Quote. Financial Bids opened as above will be checked for arithmetical errors. The work will be awarded on the basis of lowest quote.
- 2.5.8 The successful bidder shall be issued Work Order (W.O.) of the bid, and be required to furnish a Performance Guarantee of 5% of the W.O. value.
- 2.5.9 Agreement (Contract) consisting of complete tender document including terms and conditions, bill of quantities, technical proposal and specialized services, drawings, if any, and acceptance thereof together with any correspondence leading thereto, shall be drawn and signed with the awardee after issue of Work Order.



3. UNDERTAKING BY THE BIDDER

UNDERTAKING

I / We have read and examined the Tender document including terms & conditions, specifications, bill of quantities, drawings and designs, general rules & directions, General Conditions of Contract, Special Conditions of Contract and all relevant other documents, publications and rules referred to in the Conditions of Contract (CPWD GCC) and all other contents in the tender documents for the work including applicable CPWD Specifications.

I / We, hereby tender for execution of the work specified for the Indian Institute of Technology Goa within the time specified and in accordance in all respects with the specifications, designs, drawings and instructions in writing.

We agree to keep the tender open for 120 days from the last date of its submission and not to make any modifications in its terms and conditions. A sum of Rs. _____ has been deposited in cash/ demand draft of a scheduled bank as earnest money. If I / we, fail to furnish the prescribed performance guarantee within prescribed period, I / we agree that the said Director, Indian Institute of Technology Goa or his authorized officer shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I / we fail to commence work as specified, I / we agree that the Director, Indian Institute of Technology Goa shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein.

Further, I / We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I / We shall be debarred for participation in the re-tendering process of the work.

I / We hereby declare that I / We shall treat the tender documents and other records connected with the work as secret / confidential documents and shall not communicate information derived there-from to any person other than a person to whom I / We am / are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Seal & Signature of Contractor

Postal Address

Dated

Witness

Address



ANNEXURE-A

Details of Air Conditioners, Water Cooler and Water Purifiers considered under AMC. All machines are average 1 to 4 years old.

Sr. No.	Make	Qty	Capacity
Details of Air Conditioners			
1	Bluestar	14	1.0 tons
		5	1.5 tons
		12	2.0 tons
2	Carrier Media	2	1.5 tons
		15	2.0 tons
3	IFB	6	1.0 tons
		5	1.5 tons
		5	2.0 tons
4	LG	2	1.0 tons
		33	2.0 tons
5	Lloyd	33	1.0 tons
		9	1.5 tons
		1	2.0 tons
6	Onida	4	2.0 tons
7	Videocon	1	1.5 tons
8	Voltas	6	1.0 tons
		3	1.5 tons
		3	2.0 tons
Total		159	
Details of Water Cooler			
1	Bluestar	21	80L/40L
Details of Water Purifiers			
1	Eureka Forbes (Machine Available: aquaflo ex, aquaflo dx uv, aquaflo dx new, maxima uv, crystal plus, aquaguard 200 and ag hiflo)	25	2L-3L per min
2	Aditya Technology with RO and UV process	13	50L/hour



ANNEXURE-B

Minor repairing of electrical fitting associated with power supply of AC units

Sr no	Item description	Service schedule
1	Rewinding of burnt motors of Air Conditioners	as and when required
2	Fan blade	as and when required
3	Fan blower	as and when required
4	Air Filter	as and when required
5	Compressor (Rotary/Hermatic)	as and when required
6	Thermostate	as and when required
7	Sensor	as and when required
8	Power circuit plate (PCB)	as and when required
9	Relay	as and when required
10	Condenser	as and when required
11	Selector Switch with Knob	as and when required
12	Ventuary for Condenser side	as and when required
13	Medicated Filter	as and when required
14	Blower motor	as and when required
15	Starting Relay	as and when required
16	Thermal sensor	as and when required
17	Display	as and when required
18	Remote	as and when required
19	Swing motor	as and when required
20	Sensor for Split AC	as and when required
21	Copper Filter (Stainer)	as and when required
22	Fan capacitor	as and when required
23	Mounting bush for body blower motor	as and when required
24	Mounting bush for Compressor	as and when required
25	Starting Relay	as and when required



PART-B (FINANCIAL BID)

Schedule of Quantities

Sr No	Particulars	Qty (A)	Rate per Month per unit (B)	Amount per Month (C=A*B)	Amount (D=C*12)
1	Comprehensive Annual Maintenance/ servicing of Split Air Conditioning machines (Various make, capacity 1T,1.5T,2T) as described in para 2.1.4 of Technical Bid. List of ACs as per annexure A	159			
2	Comprehensive AMC of Water Cooler (Blue Star make, cooling capacity @40 Ltr/hr, storage 80Ltr) as described in para 2.1.5 of Technical bid. List of Water cooler as per annexure-A.	21			
3	Comprehensive AMC of Water Purifiers (make Aquaguard, Aditya technology) as described in para 2.1.6 of Technical bid. List of water purifiers as per Annexure A	38			
Total					