



Institute of Physics
Sachivalaya Marg
Bhubaneswar-751005

NOTICE INVITING TENDER
Tender No. NIT/IOP/120/2025-26

Name of The Service: *“Comprehensive maintenance of Split, Cassette, Tower, Window and Package air-conditioning system and laboratory Chillers of Institute of Physics Bhubaneswar-751005”*

PART-A

Notice Inviting Tender



Institute of Physics
Sachivalaya marg
Bhubaneswar-751005

NOTICE INVITING TENDER
Tender No. NIT/IOP/120/2025-26

Description of the Services: *“Comprehensive maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers of Institute of Physics Bhubaneswar-751005.”*

Annual comprehensive maintenance of: 2x60 TR Package AC at Auditorium & Annual comprehensive maintenance of Cassette, Tower, Window and Split Air conditioners, laboratory chillers, as on requirement basis.

Estimated Cost : Rs16,90,300/-P.A.excluding taxes.

Period of Contract : Initially for one year

Earnest Money Deposit : Rs 50,709/-

Important dates :

1. Sale of Tender : 05.12.2025
2. Last date for submission of Tender : 26.12.2025 up to 14.30 hours
3. Opening of tender as per CPP guideline : 27.12.2025 at 16.30 hours

For further details, please refer to the detailed NIT in IOP's website

www.iopb.res.in

NOTE:

Bidders not meeting the eligibility criteria indicated in the detailed NIT need not apply.

Canvassing in any form shall disqualify the Tenderer in participating in the Tender.

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(REGISTRAR)

REGISTRAR
INSTITUTE OF PHYSICS
BHUBANESWAR



**Institute of Physics
Sachivalaya Marg
Bhubaneswar-751005**

**NOTICE INVITING TENDER
Tender No. NIT/IOP/120/2025-26**

Sealed item rate tenders in two-parts in the prescribed form are hereby invited by Director, Institute of Physics, Bhubaneswar-751005, for the following work from contractors having adequate experience and capabilities to execute such magnitude of similar works and who have similar experience with different units of Department of Atomic Energy (DAE), Nuclear Power Corporation of India Ltd, Public Sector Undertakings, etc.

Description: *Comprehensive maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers of Institute of Physics, Bhubaneswar-751005.*

- 1. Estimated Cost: Rs16,90,300/- (Rupees Sixteen Lakh Ninty Thousand Three Hundread Only) excluding Taxes.**
- 2. Period of Completion: One year (12 months)**
- 3. Earnest Money Deposit: Rs.50,709/-(Rupees Fifty Thousand Seven Hundread Nine Only)**

Note: -

1. Total Earnest Money Deposit (EMD) **Rs.50,709/-** by way of DD/ banker cheque of a schedule Bank, drawn in favour of Director, Institute of Physics, Bhubaneswar, payable at Bhubaneswar should accompany the Bid in separate envelop along with Technical Bid. Part Bids received without EMD will be treated as invalid and rejected.
2. Tender document is prepared in two parts viz Part-A (Technical Bid) and Part-B (Price Bid). Part-A consists of the tender document that includes form for tender agreement, conditions of contract, special instructions to the tenderers, technical specifications, tender drawings etc. Part-B consists of Tender Document that gives Schedule of Quantities, list of free issue materials, etc. Submission of application for purchase of tender through CPP portal on or before end date.
1. Average annual financial turnover during last 3 years from similar type of works preferably in DAE units should be at least Rs. 16,00,000/- (Rupees Sixteen Lakh Only). This should be duly audited by a registered Chartered Accountant.
2. Copy of IT Returns and audited balance sheet and profit and Loss statements for the previous five years.
3. Should not have incurred loss in more than two years during the last 3 years and shall not be under court receivership or under liquidation.
4. Year wise list of works carried out during last 3 years as well as list showing the cost of works in progress.

5. Performance certificates in respect of completed similar works and reasons for delays, if any.
6. List of tools and tackles available.
7. Proof of having satisfactorily completed (based on certification of performance by client of the works)
 - 3 (Three) similar works each of value not less than 40% of estimated value p.a.
 - or 2 (Two) similar works each of value not less than 60% of estimated value p.a.
 - or 1 (One) similar work of value not less than 80% of estimated value p.a.

For this purpose, 'cost of work' shall mean gross value of the completed work **not** including the cost of materials supplied by the Govt./Client, The work completion must not be later than three years. Submission of the proper completion certificate is mandatory.

Similar works means:Comprehensive maintenance work of Split, Tower and Cassette , Window ,Package AC , laboratory chillers.

The tender documents (Part-A & B) shall be available from the CPP portal and IOP, web site. A pre-bid meeting will be held on **18.12.2025** at 11:00 hrs at Library Building conference room.

8. Bidders are requested to fill the rates only in the prescribed format of the price bid in CPP portal.
9. Bidders are invariably required to fill up the total rates of each item in both words and figures.
10. Tenders with any condition including conditional rebate shall be rejected. However, tenders with unconditional rebate will be accepted.
11. The time allowed for carrying Out the work will be **Twelve [12]**months (including monsoon period) to be reckoned from the 15th day after date of written order to commence the work.
12. Tender will be kept valid for 90 days from the date of opening the tender (Part-A).
13. In case the last date of sale and/or the date of receipt and opening of tender is declared as holiday, the respective date shall be treated as postponed to the next working day.
14. After opening of Part-A of the tender, bidders shall be evaluated for their techno-commercial capability to carry out the work based on the following:
 1. Financial soundness and turnover during the last 5 years.
 1. 3 (Three) similar works each of value not less than 40% of estimated value p.a.
 2. or 2 (Two) similar works each of value not less than 60% of estimated value p.a.
 3. 1 (One) similar work of value not less than 80% of estimated value p.a.
 2. Technical capabilities in regard to tendered work.
 3. Experience of similar works executed in the last 3 years.
 4. Available resources & their deployment to carry out the tendered work.
 5. An inspection team duly constituted by Director,IOP may visit selected site(s) of the tenderer and local office and workshop.

6. The contractor whose tender is accepted will be required to furnish by way of performance bank guarantee for the due fulfillment of his contract, such sum as will amount to 10% of the contract value of work within 15 days of the receipt of the letter of intent/notification of acceptance of the tender by him and the same will be refunded after successful completion of the period of AMC as specified in the work order.

Performance bank guarantee will be forfeited in the event of the contract offered in full or in part not been fulfilled by the tenderer /contractor.

The successful bidder shall permit IOP, Bhubaneswar at the time of making any payment to him for the work done to deduct at the rate of 10% of the gross amount of the bill as security deposit.

The acceptance of tender will rest with Director, Institute of Physics, Bhubaneswar, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assignment of any reason. All Tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are liable to be rejected.

7. All rates shall be quoted on the proper price bid of the tender alone. The tax and unit price with specification will be final and at no clarification thereafter is allowed.
8. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from The Engineer-in-charge shall be communicated to the Engineer-in-charge.
9. The Director, Institute of Physics, Bhubaneswar, reserves the right to accept the whole or only part of the tender and the tenderer shall be bound to perform the same at the rates quoted.
10. G.S.T. or any other Tax on material in respect of this contract shall be payable by the contractor and Government will not entertain any claim whatsoever in the respect. However, any change in the existing taxes and levies or new taxes and levies if introduced by the Government after the receipt of offer as well as during the currency of the contract will be duly considered and paid extra and vice-versa, the subject to documentary proof. For this purpose the tenderer may furnish the details of taxes and levies that have been considered in the offer and rates assumed thereof. The GST and taxes will be applicable at the prevailing time of the contract.
11. The tender for works shall remain open for acceptance for a period of 90 days from the date of opening of tenders (Part-A). If any tenderer withdraws his tender within the validity period or make any modifications in the terms and conditions of the tender which are not acceptable to the Institute, then the IOP shall without prejudice to any right or remedy, be at liberty to forfeit the Earnest Money absolutely.
12. It will be obligatory on the part of the tenderer to seal & sign the tender document for all the component parts.
13. This Notice inviting Tender shall form the part of the contract document.
14. The Contractor shall submit a detailed list of similar works carried by them for the last 3 years including annual turnover and also works in hand (progress) in the following proforma.

Name of work	Name & Address of Establishment under Whom work is being executed	Value of work	Completion Time as per contract	Position of Work in Progress	Remarks

15. Please note the following:

1. Cheques for Earnest Money Deposit will not be accepted
2. Solvency certificate, when asked for, should of value not less than 40% of the tender amount and should be dated not earlier than January 2023 and may be submitted along with Part-A.
3. Tender forms are not transferable.
4. Contractors will be vetted by the Security Section of IOP.
5. Please note that to enter IOP, photo-identity (passport, driving licence, voter's I-card. I-card' issued by the employer, etc.) is a must. Prior confirmation on Phone shall have to be taken by the bidder so as to arrange for an entry to IOP.
6. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be Liable to rejection.

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**Institute of Physics
Sachivalaya Marg
Bhubaneswar-751005**
Notice Inviting Tender in brief

Sealed Item rate tenders in two parts viz. Part 'A' (Technical Bid) and Part 'B' (Price Bid) are invited, by Director, Institute of Physics, Bhubaneswar-751005, for the following work from bidders meeting criteria indicated in notice inviting tender (NIT) at IOP website www.iopb.res.in

Tender No. : NIT/IOP/120/2025-26, Name of the work: ***Comprehensive maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers of Institute of Physics, Bhubaneswar-751005.***

. Estimated Cost: **Rs16,90,300/- excluding Taxes.**, Period of Completion: **12 months**; Earnest Money Deposit : **Rs.50,709/-**, Issue of tender document: **05.12.2025**, Pre-bid meeting of tender: **18.12.2025**, Last date of receiving tender document: **26.12.2025**; Date of opening of Part 'A' of tender: **27.12.2025** For tender documents etc. bidder must refer NIT in above IOP website and follow the instructions. Competent authority, Director, Institute of Physics, Bhubaneswar reserves the right to reject any or all tenders without assigning any reason thereof.

REGISTRAR

Technical specification and general scope of work for *Comprehensive maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers of Institute of Physics, Bhubaneswar- 751005.*

Scope of work: *Comprehensive maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers of Institute of Physics, Bhubaneswar- 751005.*

Detailed scope of work, terms and conditions, specifications etc. are enclosed with this tender documents as per Annexure I, II, III, IV,V, VI, VII.

Special note to bidder:

The contractor shall handover the installation in full running condition to Institute, after completion of the contract period. In case, if any faulty component is noticed during handing over/taking over by succeeding contractor, the same shall be made good without any extra cost by him. Alternately suitable recovery shall be made from his final bill.

ANNEXURE-I

Scope of Work in Comprehensive maintenance of AC systems:

The following scope of work is only indicative of minimum requirement and contractor is strongly advised to use his own judgment in evaluating the quantum of work involved in maintenance of Split, Cassette, Tower, Window, Package air-conditioning system and Chilled water systems and all other accessories of these systems etc. The bidder is advised to understand the criticality of the application and the importance of maintaining more than 95% uptime of the systems. The contractor should physically verify the site before quoting for the contract.

7. To maintain Split, Cassette, Tower, Window, Package air-conditioning system and laboratory Chillers (including low side equipments) as per Annexure-I, round the clock throughout the year (365 days of the year).

General Scope of Work

The scope and nature of services to be provided by the contractor shall include scheduled preventive maintenance services which cover periodic and breakdown servicing, along with replacement of all defective spare parts, including compressor by new one and other consumables, if required during the contract period.

The contractor at his own cost shall have to maintain a team of trained, qualified and experienced personnel to carry out maintenance/ servicing of the air conditioners and chillers.

If required, the contractor will engage extra manpower for making defective machines ready within stipulated time at his own cost.

The quantities of Air-Conditioner may increase or decrease which will be intimated by EIC, as and when necessitated. Pro-rata payment for increase/decrease will be made.

For Split, Cassette, Tower, Window ACs and Re-circulating laboratory chillers

1. WORKS TO BE CARRIED OUT QUARTERLY :

Each air-conditioner shall have to be serviced minimum four times in a year. However, the break down complaint are to be attended immediately with shortest possible time depending upon the site requirement to meet the desired performance of air conditioner &/or as per instruction of Engineer-in-charge. The contractor will make a schedule to comply with the service & maintenance of all the machines accordingly.

Following works to be carried out during servicing:

1. Cleaning of air filter
2. Cleaning of cooling/evaporator coil

3. Cleaning of condenser coil
4. Lubrication of blower fan motor ,
5. Cleaning of unit base, side covers, fan guard
6. Checking of all electrical spares/safety controls, wiring of AC units and tightening of all electrical connections.
7. Noise observation and rectify
8. Checking cooling performance and efficiency
9. Current drawn by each machine
10. Checking of thermostat limits for proper temperature control and in case found defective to be replaced by a new one.
11. Checking/replacing movable louver swing motor.
12. Cleaning and de-choking of drain pipe.
13. Repair or replacement of re circulating pump and pipes.(only for water chillers)

2. WORKS TO BE CARRIED OUT YEARLY:

1. Thorough over hauling of all ACs including painting of outdoor covers and stands , wherever possible or as directed by Engineer-in-charge (EIC), will have to be done.
2. To paint the window AC units and split outdoor units (including the compressor, fan motor, outside over and base plate) with approved color and shade.
3. All the works to be carried out as carried out in quarterly schedule above and replacement of damaged insulation tube along with wrapping tape on cooling pipes.
4. Washing and cleaning of A.C
5. Minor repair of body and cover if needed is to be done as per requirement
6. Jet washing of indoor and outdoor units of all the AC using high pressure water jet machine and a special speedy foam chemical.

For package AC systems (2X60 TR)

8. To carry out the maintenance of 2X60 TR packaged chiller units of central AC systems of Auditorium including the low side equipment's and operation of the same as per requirement. Details of the system are mentioned in Annexure-I.
9. To check and clean all AHU filters, AHU coils ,AHU blowers, AHU blower motors and adjust/ replace belt, belt tensions, if necessary to grease the blower motors and pillow blocks once in a quarter or as per the decision engineer-in-charge (EIC), IOP. Balancing of the blowers has to be carried out if required.

10. To check the refrigerant system for leakage of refrigerant and topping up of the same after rectification of the leakage once in a quarter or as per the decision of engineer-in-charge, IOP.
11. To check/ clean with CRC/ tighten all electrical controls quarterly. The heated terminations if required to be replaced with new ones with proper size and by using appropriate size crimping tool. To check the performance and if required to replace all the safety devices. This is required to be carried out once in three months or as per the site requirement.
12. To check and clean supply/ return ducts/ grills/ diffusers, dehumidifier coils and filters, fresh air filters etc. once in a quarter or as per the decision of engineer in charge IOP.
1. To tighten foundation bolts and adjust drive belt tensions as and when required.
13. To check and rectify rotary equipment alignment once in three months (by use of three dial gauges and to an accuracy of 0.05mm on both the axial and radial readings).
14. To check/ grease/ lubricate and if required to replace bearings in all rotating machines like motors, pumps, blowers, compressors etc.
15. Repair, replacement and maintenance of mechanical equipments such as compressors, pump sets, AHU blowers, motor drives, including minor and major overhauling.
16. To check electrical circuits and rectify the problems if any in the same as and when necessary.
2. To check the compressors for refrigerant gas pressure, oil level, vibration, sound and other parameters quarterly. If the required temperature is not achieved or any other problems observed in the compressor, same has to be checked thoroughly. If required the compressor has to be dismantled completely for necessary maintenance, rectification of the problem and / or replacement of the spares.
3. To carry out the maintenance of 2X 60TR packaged chiller units of central AC of Auditorium to maintain a temperature of 20 to 22 Degree Celsius.
4. To check if required to replace the heaters on the compressor and in the AHU ducts and dehumidifier.
5. To check the desiccant level in the dehumidifier. To top up the same and replace the same if required.
6. To paint the piping, supports, hangers and equipments as and when required.
7. IOP will not pay any additional charges for machining jobs/ shaft alignment/ repairs, required for condensers, compressor, chiller, AHU systems etc. and coil rewinding for any motor burn. The AMC is inclusive of all spares and consumables for the above maintenance work. In certain circumstances the contractor may be asked with written order to procure spare parts not covered within the scope, which will be reimbursed by IOP on production of copy of original invoice raised in favor of Institute of Physics + 10% towards handling charges.
8. To paint 2 nos. 60TR packaged AC units, machineries and pipe lines, electrical panel, the compressor, fan motor, outside cover and base plate with approved color and shade preferable during winter season with approved color and shade at least once in a year.
9. The contractor shall carry out the major preventive maintenance of 2x 60TR packaged chiller unit machinery and their ancillary equipments, pipe lines,

electrical panels etc once in the winter season to avoid any break down during the peak season (summer).

10. During the major preventive maintenance the AHU of all the systems has to be cleaned properly. ALL the filters have to be cleaned properly by water and after drying the same it has to be fixed back. The duct lines of all the AHU systems also have to be checked and cleaned during the preventive maintenance.
11. Compressor oil is required to be replaced at least once in each year and preferably during the major preventive maintenance period and / or else as per the site requirement.

1. SPARES&CONSUMABLES:

The contractor shall have to keep sufficient stock of spares of each type of air conditioner including compressor, fan motors, capacitors, refrigerant gas, swing motors, louvers, knobs, thermostats, multiple contact selector switches & other consumable to render proper service on daily basis. All the problems in connection to the same have to be attended with immediate effect.

For the above scope of work IOP will provide only the following free of charges to the contractor:

(A) Free water and electricity

(B) Parts required for maintaining the plant that are going permanently into the installation.

ANNEXURE - II
DETAILS OF EQUIPMENTS COVERED UNDER THE SCOPE OF WORK

Split AC, Cassette, Tower and Window air conditioning systems

Sl. No.	Type of Air Conditioners and chillers	Qty
1	Comprehensive AMC of 1.5/2.0 TR Split AC ,Inverter Type (Including all spares)	11
2	Comprehensive AMC of 1.5/2.0 TR Split AC ,Non-Inverter Type (Including all spares)	155
3	Comprehensive AMC of 1.5/2.0 TR Window AC ,Non-Inverter Type, (Including all spares)	10
4	Comprehensive AMC of 1.5/2.0 TR Split AC Inverter Type (Including PCB all spares and excluding compressor)	25
5	Service charges for 1.5/2.0 TR Split AC (Inverter/ Non-Inverter Type) filter cleaning ,dry and wet cleaning (Machines are in warranty)	88
6	Comprehensive AMC of 3 TR cassette AC (Including all spares)	6
7	Comprehensive AMC of 4 TR cassette AC (Including all spares)	4
8	Comprehensive AMC of 4 TR Tower AC (Including all spares)	9
Total		308

2X60TR Package AC plant

S. No	Description Comprehensive Maintenance of the following.	Quantity
1	Packaged condensing unit, make- TRANE Model - RAUP-600, capacity - 60TR, Contains 4 nos. of 15TR scroll compressors, Strainers, safety devices, Refrigerant gas, 2 condensing coils, 6 nos. of cooling fans, Electrical circuitry, gas pipe lines, valves, etc.	2 sets
2	AHU for Auditorium, Double skinned AHU Capacity- 35700 cfm at <u>75mm wg.</u> With heaters, Expansion Valve, safety devices, gauges, AHU ducts Dampers, etc. & blower with motor- 18.5KW (25HP), make-Crompton Greaves, Current- 33A	2sets One unit
3	Associated Electrical panel for the above systems.	1set

Re-circulating laboratory Chillers

Sl. No	Description Comprehensive AMC of the following.	Quantity
1	Re-circulating laboratory Chillers (0.1 TR to 2TR)	10 nos.

Sl.No.	Location	Rating		
1	SUNAG Lab (Prof. T. Som)	Small unit, rating not available		
2	SUNAG Lab (Prof. T.Som)	0.3 KW	0.1 TR	
3	SUNAG Lab (Prof. T.Som)	2 TR	2 TR	
4	ECR Lab (Prof.T.Som)	775 Watt	0.22 TR	
5	MBE Lab (Prof.T.Som)	450 W	0.13 TR	
6	Prof. Satyaprakash Sahoo	6 KVA, 3 KW-3 phase	0.85 TR	
7	Prof. Dinesh Topwal, Block-B	5 KW, 3 phase	1.5 TR	
8	Prof. Dinesh Topwal,Block -B	4.3 KVA,3 phase	1.22 TR	Waiting for repair
9	ESEM lab, Director's lab	3.5 kW 3 phase	1 TR	
10	Squid Lab (Prof.D.Samal)	5 KW, 3 phase	1.5 TR	

ANNEXURE-III

TIME SCHEDULE FOR ATTENDING/ COMPLETION OF PROBLEMS IN THE Split, Tower, Cassette, Window, Package AC systems and laboratory Chillers.

Sl. No.	Description of work	Time
Split, Tower, Cassette, Window Ac and laboratory chillers		
1	Minor problems replacement of starting capacitor, running capacitor, thermostat, air filter, contactor, relays, refrigerant top up, etc	One day
2	Replacement/ repair of fans/ blower motors, bearings/ bushes, burnt wirings, re-circulating pump (chiller) etc	Three days
3	Replacement of compressor	Three days
4	Replacement/ repair of refrigerant tubing's, condenser coils, copper pipes for gas leakage, etc	Two days
5	Gas charging	One day
6	Repair/ replacement of electronic PCB and circuitry	Five days
7	Electrical problems	One day
8	Complete overhauling of window/ split AC system	Two days
2X60TR Package AC plant		
1	Minor defects Mechanical and Electrical	One day
2	Major Electrical problems like repair/ maintenance/ replacement of Starter/ SFU/ Control Circuit etc.	1-2 days
3	Leakage testing, rectification of the same, pressure testing, Gas Charging and putting back to service	two days
4	If compressor has to be dismantled due to any type of faults, after necessary repair, putting same back into normal operation	Two days
5	Replacement of compressor	Five days
6	Replacement/ repair of fans/ blower motors, bearings/ bushes, burnt wirings, AHU motors, shaft alignment and bearing	Two days
7	Servicing/ replacement of contactor points	Two day
8	Repair of burnt terminals	One day
9	Replacement of burnt wirings/ cables etc.	One days

PENALTY Clause:

Penalty clauses for unjustified delay caused by the contractor for attending and keep the system up during major and minor break down.

1	Minor Breakdown	<u>Rs.150/- per day of delay subject to maximum of Rs. 10000/- per complain.</u>
2	Major Breakdown	<u>Rs.100/- per day of delay subject to maximum of Rs. 10000/- per complain.</u>

Note:

The contractor should provide valid email ID for lodging complains.

The problems can be solved in one day will be considered as minor problem and the problems which will take more than one day as specified above will be considered as major problem.

Recovery:

NOTE: *However in case the work progress is not satisfactory or delayed beyond the scheduled completion / contract period specified in annexure-III, IOP reserves the right to get the work done by any other contractor at risk and cost of the contractor and amount to that effect will be deducted from his quarterly bills/dues. In this connection the EIC report is final.*

ANNEXURE-IV

Other Requirements (within the contract value and no extra cost will be paid for the same):

1. All the workman engaged by the contractor at IOP site has to follow the instructions issued by the EIC of IOP.
1. The contractor is required to meet the Engineer in Charge at least once in each month to discuss the details of the work performance.
2. The contractor/ workman shall be available to pass on the Instructions from Engineer in Charge, Institute of Physics.
3. The workman/ contractor have to be present whenever required by the EIC, IOP even in holidays or after duty hour for discussing regarding the emergency situation in the plant or systems.
4. The contractor shall depute one qualified engineer to check-up the plant/systems to ensure trouble free running whenever necessary.
5. In case the person engaged by the contractor is not found up to the standard during the execution of the contract, it shall be the responsibility of the contractor to replace the workman for speedy and smooth attendance of complains.
6. The contractor should note that the staff recruited/ appointed for the purpose of work at IOP site should be of Indian origin and domicile only and should have good moral character and also should not have been in wanted list of criminals.
7. In case any of the workmen engaged by the contractor for the work wants to leave the site must inform the EIC, IOP.
8. Complying with the requirements of IOP security for regulating entry of the persons deployed for the contract. Further, in and out time of the persons deployed by the contractor for various activities under this contract shall be recorded in the prescribed register at the Main Gate.
9. Penalty for Failure to provide services as per Clause above.

ANNEXURE-V

1. Re-metalizing & machining of the AHU blower shaft:
Scope of work briefly covers dismantling of AHU shaft and pillow block bearings transportation of shaft from IOP to works & back, re-metalizing of bearing seats by low temperature/ staggered welding to have a minimum fusion depth of 1.5mm while ensuring the shaft run-out less than 0.02mm, machining and grinding to a surface finish of Rz1.2 micron, assembly of blower/ pillow block bearings/ pulley, alignment of belt drives & commissioning of the same at site.
2. AHU coil, leak repair/ rectification/ testing:
Scope of work briefly covers transportation of coil from IOP to works and back, leak testing of coil under pneumatic test pressure of 10Kg/ cm² in dip tank, rectification of leakages by brazing. Final leak testing/ rectification till no further leak is found. Pressure withstanding test has to be done for minimum of 45 minutes.

Note: The maintenance schedule mentioned above is applicable from the date of handover the plant or AC system. Whichever plants or AC system is not handed over to the contractor for AMC, the maintenance schedule will be started from the date of handover.

ANNEXURE-VI
SIMILAR WORKS COMPLETED AND IN PROGRESS DURING THE LAST 5 YEARS
ADD ADDITIONAL SHEETS IF NECESSARY

SL. No.	Description Of Work	Period of Contract	Value Of the Contract	Name, Designation and contact phone and mail Id of the authority for whom the Work was done With work Completion certificate

ANNEXURE-VII

ACCEPTANCE CERTIFICATE

I.....(designation)..... of (Name of the
Company)

Hereby accept the above-mentioned Terms & Conditions mentioned in NIT, Technical
Bid, along with Annexure I to VII for the above Contract of Institute of Physics,
Bhubaneswar.

Signature
Company
Seal

Name of the authorized person with
telephone number & E-mail address who
will deal this contract on behalf of the
bidder:

Name & Address of the firm/Bidder
With contact phone number & E-mail address:

Address with phone number & E-mail
address of the local office/ workshop in
Bhubaneswar:

Signature
Company Seal

PART-B

BOQ for Annual Comprehensive Maintenance of Split, Cassette, Tower and Window air conditioning systems

Schedule-II

FINANCIAL BID

THIS IS THE ONLY DOCUMENT TO BE SUBMITTED IN PRICE BID ENVELOP OF THE TENDER

(A). Split, Cassette, Tower and Window air conditioning systems.	Sl. No.	Details of Air Conditioners.	Qty	Rate in Rupees per Year for First year excluding GST/tax.	Rate in Rupees per Year for Second year excluding GST/ tax. (If extended in continuation with first year)	Rate in Rupees per year for Third year excluding GST/tax. (If extended in continuation with first and second year)
	1	Comprehensive AMC of 1.5/2.0 TR Split AC ,Inverter Type (Including all spares)	11			
	2	Comprehensive AMC of 1.5/2.0 TR Split AC ,Non-Inverter Type (Including all spares)	155			
	3	Comprehensive AMC of 1.5/2.0 TR Window AC ,Non-Inverter Type, (Including all spares)	10			
	4	Comprehensive AMC of 1.5/2.0 TR Split AC Inverter Type (Including PCB all spares and excluding compressor)	25			
	5	Service charges for 1.5/2.0 TR Split AC (Inverter/ Non-Inverter Type) filter cleaning ,dry and wet cleaning (Machines are in warranty)	88			
	6	Comprehensive AMC of 3 TR cassette AC (Including all spares)	6			
	7	Comprehensive AMC of 4 TR cassette AC (Including all spares)	4			
	8	Comprehensive AMC of 4 TR Tower AC (Including all spares)	9			
<i>Total cost(A)=</i>						
(B).Package ac system (2X60TR)	9	Packaged condensing unit, make- TRANE Model - RAUP-600, capacity - 60TR, Contains 4 nos. of 15TR scroll compressors, Strainers, safety devices,	2 sets			

		Refrigerant gas, 2 condensing coils, 6 nos. of cooling fans, Electrical circuitry, gas pipe lines, valves, etc				
	10	AHU for Auditorium, Double skinned AHU Capacity- 35700 cfm at <u>75mm wg.</u> With heaters, Expansion Valve, safety devices, gauges, AHU ducts Dampers, etc. & blower with motor- 18.5KW (25HP), make-Crompton Greaves, Current- 33A	2sets (One unit)			
	11	Associated Electrical panel for the above systems.	1job			
<i>Total cost(B)=</i>						
(c) Re-circulating laboratory Chillers	12	Re-circulating laboratory Chillers (0.1 TR to 2TR)	10 nos.			
<i>Total cost(C)=</i>						
<i>GrandTotal cost(A+B+C)=</i>						
<i>Add GST%=</i>						
<i>Total Annual Year wise value in Figure</i>						
<i>Total Annual Year wise value in Words.</i>						

Terms and Conditions:

10. Price is to be filled in both numbers & words in the column as specified above. The unit price must be excluding taxes. In no case further bifurcation of the same is allowed between unit price and tax at any point of time after the final bid is submitted.
11. All the pages of price bid have to be filled, signed with seal by the bidder and to be submitted in the part (B) envelope of the bid.
12. All the pages of price bid is to be filled up without any cutting/ overwriting/ inking/ erasing/ white fluid etc.
13. Institute of Physics reserves the right to reject the tender paper of the bidder who has not quoted for all the options mentioned here.

SIGNATURE OF THE BIDDER WITH COMPANY SEAL

NAME

DATE

GENERAL TERMS AND CONDITION OF THE WORK CONTRACT

14. **Contract Period:** The contract period is initially for one year in case of satisfactory performance the contract period may be extended for a further period of another year. The extension of contract is however limited to three years from the date of award of the contract.
15. **Term of Payment:** The payment shall be made on submission of quarterly bills in triplicate after due certification by IOP, Engineer in Charge. The bill should accompany with the copies of the service reports duly signed by the users.
16. **Rights of IOP for Deduction from Quarterly Bills:** The payment shall be made quarterly on successful completion of each completed quarter after due verification of the invoice by IOP, Engineer in Charge. Who may affect the deduction for non-performance or delayed or improper work if the maintenance activities are not carried out as per the response time indicated in annexure-III (Technical specification and general scope of work) suitable deductions on proportionate basis will be made from your bills and Institute reserves the right to determine the amount of deduction.
17. **Correspondence:** All the correspondence in respect of tender/ contractual obligation shall be made to “Director, Institute of Physics, Sachivalaya Marg, and Bhubaneswar-751005.”
18. **Performance Guarantee:** The Performance Guarantee will be released after completion of work and site clearance by the contractor. No, interest will be paid on such PBG. Security Deposit and EMD will be refunded after successful completion of six month defect liability period. No interest will be paid on such deposits. The contractor may opt to furnish the security deposit equivalent to 10% of the contract value in shape of bank guarantee valid up to the end of three (3) months from the date of expiry of the contractual period. The EMD of rest of bidder will be refunded after award of the contract.
19. **Labour Law:** The contractor will abide by the rules and regulations related to the labour laws, accident, workmen compensation act, workman insurance, ESI, PF, etc. This will be the sole responsibility of the contractor. Institute of Physics, Bhubaneswar-751005 will not be a party at any stage in any of the dispute relating to the above. In case any liability arises due to non-conformation by contractor, under no circumstance IOP will be liable for the same.
20. **Rules Governing the Contractor’s employees working in the IOP Premises:**
The contractors employees working inside the IOP campus will abide by the rules & regulations of the Institute. Any damage to the IOP Property due to mishandling, carelessness on the contractor’s or his workman’s part will be recoverable from the contractor’s bill.
21. **Liquidated damages:** In case the work is delayed beyond the specified completion period for reasons attributable to the contractor, deductions on account of Liquidated damages @1% of the contract value per month will be deducted subject to a maximum of 10% of the total incomplete work. In such case in complete work shall be worked out by deducting value of the work actually executed from the total work order value. However in case the work is delayed beyond the scheduled completion / contract period, IOP reserves the right to get the work done

by any other contractor at risk and cost of the contractor and amount to that effect will be deducted from his bills/dues.

NOTE: However in case the work progress is not satisfactory or delayed beyond the scheduled completion / contract period specified in annexure-III, IOP reserves the right to get the work done by any other contractor at risk and cost of the contractor and amount to that effect will be deducted from his bills/dues. In this connection the EIC report is final.

22. **Work Supervision at IOP Site:** It will be the responsibility of the Contractor and the workmanship deputed will co-ordinate work execution activities and interact with the IOP representatives responsible for supervision of work. The workmanship deputed is responsible for maintaining the daily, weekly and monthly routine maintenance, maintaining log book, preventive maintenance register and duly verified from EIC. Arrange a meeting once in a month with the contractor to review the performance.
23. **Tools and other required materials:** The contractor will provide necessary materials, tools, ladders, equipment's, measuring instruments and working consumables etc. needed for the execution of the work. Safe custody of all such materials will be contractor's sole responsibility. No extra charges will be paid for the same.
24. **Watch and Ward of IOP Equipment's:** Watch and Ward of all materials till the system is taken over by IOP shall be sole responsibility of the contractor and pilferage etc. shall be entirely to his account.
25. **Safety of the workmen:** All the persons deployed by the contractor at IOP will have to follow the safety norms and use proper safety gears and equipment's. Against any personal accidents IOP will not be liable for payment of any compensation on that account.
26. **Norms for the Work at IOP site:** The work shall be carried out as per the norms set by the manufacturer of the respective equipment, specification and specific instructions as may be issued by the IOP EIC responsible for work from time to time. During execution of the work, the contractor should follow all the standard norms of safety measures/ precautions to avoid accidents / damages to man, machines and buildings. On non-adherence of this clauses, suitable fines as decided by the IOP shall be imposed.
27. **Entry and Exit of material from IOP Campus:** Materials belonging to the contractor whether consumable or non-consumable should be brought inside the IOP campus with proper entry at the main Gate. Any material to be taken out with IOP campus a proper gate pass need to issued by the Institute.
28. **Water and Electricity for Maintenance work at IOP:** IOP will provide free water and electricity during maintenance work at IOP, at one point. The contractor has to make his own arrangements for installation of power and water from that point as per his requirements.

29. **Termination of the contract:** The Director ,IOP reserves the right to terminate the contract on account of poor workmanship, failure to mobilize site, non compliance of set norms/ specification for the works, delay in progress of work, violation of any contract provisions by the contractor. In such cases the contractor is liable to pay liquidated damages amounting to one month contract fees held with IOP in the form of PBG along with the EMD amount held as security deposit with IOP.
30. **Agreement:** You are requested to execute an agreement with Institute of Physics, Bhubaneswar on a non-judicial stamp paper of Orissa, State of appropriate value, with in 7 days of issue of letter of Acceptance (LOA).
31. **Arbitration Clause:-** That in case of any dispute between party of first part and the party of other part arising out of or in relation to the agreement, the dispute shall be referred to arbitration of a sole arbitrator to be appointed by DIRECTOR, IOP, Bhubaneswar. The award of the said arbitrator shall be binding on both parties. The seat of the arbitration shall be at Bhubaneswar. Cost of the arbitration will be borne by both the parties.

Additional Terms and Conditions

1. The Contractor shall not sublet, transfer or assign the Contract or any part thereof or bills or any other benefits, accruing there from or under the contract without the prior written consent of IOP. Any breach of this condition shall entitle IOP to cancel the Contract.
2. If contractor fails to execute the work within stipulated time, in such case IOP may execute from other sources and the cost incurred will be recovered from the contractor's payment.
3. The price quoted in the financial bid (Part-B) must be exclusive of tax. The tax component will be calculated as per actual.
4. The experience / work completion certificate is must to consider as experience.
5. The Table given in the clause no -21 of the NIT must be filled properly. If not filled properly then the Institute reserve the right to cancel the tender.
6. If a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.
7. **The Bidder must visit the site and access the condition of the package AC, and other AC units, chillers before submitting the bid. The bidder / authorized representative with written authorization letter should visit the site during the office hour and ensure to make entry in the Gate and the register with EIC. This is a mandatory condition failing which the bid may not be considered.**

SIGNATURE OF THE BIDDER WITH SEAL