



# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुपति

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH TIRUPATI

(An Autonomous Institute under Ministry of Human Resource Development, Govt. of India)

Transit Campus : Sree Rama Engineering College Campus, Karakambadi Road,  
Mangalam B.O., Tirupati – 517 507, Andhra Pradesh, India.

NIQ No:01/IISER/Tirupati/NIQ/2019

Date: 28.01.2019

## Notice Inviting Quotation

Sealed quotations are hereby invited by the undersigned on behalf of the Director, IISER Tirupati for the work mentioned below upto 3:00 PM on 06/02/2019 from manufacturer/dealer/Agency for the work mentioned below. The quotations will be opened at 3.30 PM on the same day.

**Name of work:** - Providing Ductable Air conditioning in Cell culture Room at First floor Academic building for IISER Tirupati transit campus, Andhra Pradesh.

Issue to –

Address of the agency –

  
Superintending Engineer  
IISER Tirupati

### **Terms and Conditions:**

- 1) No advance payment shall be made by IISER Tirupati.
- 2) Time period for completion of work shall be **(01) One Month** from the date of placing the confirm order by IISER Tirupati.
- 3) Blank Quotations can be obtained from IISER Tirupati website <http://www.iisertirupati.ac.in/tenders/>
- 4) All agencies need to submit their quotation in hard copy along with EMD of Rs. 9700/- by the way of DD in favor of Director, IISER Tirupati, in sealed cover so as to reach the office on or before 3 PM on 06/02/2019. Quotation received after the date & time specified above shall not be accepted. Any delays, postal delay etc. will not be entertained. Agency should quote for all the items in the BOQ. The bid shall be submitted in the original bid document (as uploaded by the IISER, Tirupati) super scribing the name of work.
- 5) Quotations will be opened on the same day i.e., 06/02/2019 at 3.30 PM in the presence of bidder or their authorized representatives, if any. The offer of the firm should be commercially clear including acceptance of all terms and conditions of this tender by the firm. IISER reserves the right to accept or reject all the quotations without assigning any reasons.
- 6) Quotations submitted without acceptance of any of the conditions shall be treated as Conditional quotations and shall be summarily be rejected by IISER Tirupati.



- 7) Quoted rates should be inclusive of cost of all the materials, labour cost, GST, octroi, duties, cost of sample and fees towards testing of materials in labs, royalties etc. complete. Nothing extra shall be paid.
- 8) All approved makes shall be as specified in BOQ and as per CPWD specifications, agency should put-up technical data and obtain prior approval on makes of various materials of IISER Tirupati before taking-up work.
- 9) The successful agency shall make his own arrangement for all Tools & tackles for work etc complete in view of completion of work. Electricity shall be provided free of cost to agency at one source, agency should make own arrangement to safely tap of power from source to work location.
- 10) TDS and other applicable taxes and cess will be deducted from the bills as of the work.
- 11) Security deposit @2.5% shall be deducted from RA Bills. The same shall be released after satisfactory completion of 1 year from the date of handing over.
- 12) Specification for the work to be carried out as per BOQ, latest CPWD specification, IS specifications & as per instruction of IISER Tirupati wherever CPWD/ IS specification are not available.
- 13) The contractor shall ensure that minimum wages should be paid to the labours and employees in accordance with labour laws.
- 14) Agency to submit computerized measurement and abstract sheets to IISER Tirupati for payments.
- 15) Amount quoted for items should be as specified in the BOQ.

  
Superintending Engineer  
IISER Tirupati

Sign & stamp of Agency-

- Encl : - Schedule of Quantity – As per Annexure A
- Drawing



## TECHNICAL SPECIFICATIONS

1. The system shall be designed, manufactured and tested in accordance with the CPWD, General Specification for heating, ventilation & Air conditioning (HVAC) works – 2004, Internal EI - 2005 and latest Indian Standards, as specifically mentioned in tender document.
2. The ductable split AC should be microprocessor-based Ductable Air conditioning unit with scroll type compressor along with first charge of refrigerant complete with all components & controls, electrical cabling, canvas connections, electronic expansion valve, condensing unit, condenser fan, liquid receiver and Etc.as required.
3. The indoor unit should be high static 4.0 TR with minimum airflow of 1000 CFM of capacity ductable ceiling suspended indoor unit with corded remote to control the temperature. The indoor unit is connected with outdoor unit with suitable copper piping
4. The copper piping should be insulated with superlaon insulation of minimum thickness of 20mm. The ductable AC should work in an ambient condition of 40 degree Celsius. The refrigerant in the unit should be of any green gas.
5. The HEPA modules should be inbuilt with a fan with 3 speed controller for increasing the static pressure of the HEPA. (Make – Envirco Mac 10).
6. The section of filters shall be normally designed for deep folded disposable synthetic fibers for Class EU13 with efficiency of 99.97 % down to 0.3 micron. The filters should pass a minimum of 400 To 600 CFM & a pressure drop of 25 mm of WG.
7. All test certificates issued by the manufacturer and all types routine test certificates shall also be furnished before the final payment of the contract.

## COMMERCIAL TERMS AND CONDITIONS

### 2.1 General:

The works awarded by these specifications, wherever installation and commissioning along With supply is included shall be treated as indivisible works contract.

### 2.2 Prices:

The price quoted shall be inclusive of all taxes & GST and duties as applicable. Nothing extra shall be paid separately by the department.

### 2.3 Erection equipment:

The successful tenderer shall make his own arrangement for all Tools & tackles for dismantling / erection of the equipment.

### 2.4 Test certificate:

The copies of all routine and test certificate of the equipment carried at the manufacture's premises or otherwise shall be furnished to the consignee.



## 2.5 Guarantee and warranty:

The contractor shall guarantee the entire installation as per specifications both for components and for system as a whole. All equipment's shall guaranteed for one year from the date of acceptance against unsatisfactory performance or break down due to defective materials, design, manufacture or installation. The work shall be covered by the condition that the whole installation or any part /material there of found defective within one year from the date of taking over shall be replaced or repaired by the contractor at free of charge as decided by the department.

The warranty shall cover consequential damages to the equipment supplied and installed, due to poor workmanship or materials. All such repairs shall be done promptly within a reasonable period. The warranty period will commence from the date of acceptance of the equipment as fitting for service or handing over whichever is later and will cover the following:

- a) Quality and performance of materials used.
- b) Safe mechanical and electrical stress on all parts under all specified conditions of Operation.
- c) Satisfactory operation during the maintenance period.

## 2.6 After Sales Service:

The contractor shall ensure adequate and prompt service from of maintenance personal and spares as and when required with a view to minimize the break down period.

2.7 After testing, commissioning, the work shall be handed over to the department. There after contractor shall maintain the whole installation for the period of one Year.

2.8 During Maintenance period, the contractor shall submit the fortnightly perform test, checking of general operating state of all control panels etc.

2.9 List of items which need replacement during servicing shall be submitted to department. The replacement shall be done without claiming any extra payment during maintenance period.

## LIST OF ACCEPTABLE MAKES OF THE MATERIALS

S. No.	MATEREIAL	Make
1.	Ductable AC	: Carrier / Daikin / Toshiba
2.	Ducting Sheet	: JSW / Tata Steel
3.	Ducting Insulation	: K-Flex / Twiga
4.	Diffuser	: Cosmos / System Air
5.	PVC Pipe	: Diamond / Equivalent
7.	HEPA Module	: Envirco MAC 10 or Equivalent

----- End -----



## ANNEXURE -A

**Name of work: Providing Ductable Air conditioning in cell culture area of transit campus building of IISER Tirupati, Andhra Pradesh.**

**NIQ No. 01/IISER/Tirupati/NIQ/2019**



Sr. No.	Description of Item	Quantity	Unit	Rate in figures & words	Amount=column (3x5)
1	2	3	4	5	6
1	Supply Installation testing and commissioning of ceiling suspended ductable Air conditioning unit of capacity 4.0 TR with a minimum airflow of 1000 CFM. The unit should be complete with indoor and outdoor units. The outdoor unit consists of condensing unit, microprocessor control panel, scroll compressor, condensing fan, liquid receiver & Etc. And the indoor unit consists of blower fan, evaporator coil and a controller connected with corded remote controller for controlling the temperature. The rate shall be inclusive of cost of all the materials, labour for installation, import duty/excise, all taxes & levies, octroi etc. and nothing extra shall be payable.	1	Each		
2	Supply installation testing and commissioning of hard refrigerant copper piping of suitable size with 13 mm thick nitrile insulation (Both Suction & Discharge ) and fittings like elbows, couplers, tee, joints, brass fittings, U loops, expansion loops Etc with supports at every 5 feet of interval. The rate shall be inclusive of cost of all the materials, labour for installation, all taxes & levies, octroi etc. and nothing extra shall be payable.	30	Metre		
3	Supply & fixing of ducting with supports, flanges, felts, sealants, fasteners etc. (sheet thickness, zinc coating, joinery details and support spacing to be as per IS 277 / IS 655 for site fabricated ducts.). The rate shall be inclusive of cost of all the materials, labour for installation, all taxes & levies, octroi etc. and nothing extra shall be payable.				
3.1	24 G	32	Sqm		
4	Providing and fixing of filter plenum for 600-1000 CFM with terminal HEPA filters with 99.97 % efficiency down to 0.3 microns for clean room area with extra fan inbuilt with HEPA with 3 speed controller for creating the static pressure with necessary mounting frame work, perforated aluminium sheet complete as per specifications and as required ( Make- Enviroc MAC 10). The rate shall be inclusive of cost of all the materials, labour for installation, import duty/excise, all taxes & levies, octroi etc. and nothing extra shall be payable.				
4.1	size - 600*600	3	Each		



Sr. No.	Description of Item	Quantity	Unit	Rate in figures & words	Amount=column (3x5)
1	2	3	4	5	6
5	Supply and installation of Supply air diffusers of extruded aluminum with VCD, powder coated as specified and complete with Flush or stepdown, 20mm flanges with PVC gasket, removable core type, square, rectangular or as shown on drawings. 1-way, 2-way, 3-way as specified. The rate shall be inclusive of cost of all the materials, labour for installation, import duty/excise, all taxes & levies, octroi etc. and nothing extra shall be payable.	2	Sqm		
6	Thermal and accoustic insulation				
6.1	Supply and fixing of 13 mm thk nitrile rubber / cross linked polyethylene duct insulation with factory backed aluminium foil. The rate shall be inclusive of all materials, labour for installation, import duty/excise, all taxes & levies, octroi etc. and nothing extra shall be payable.	30	Sqm		
7	Supply and fixing of accoustic lining of ducts with 25 mm thick, density 48 kg/cu.m resin bonded glass fibre insulation rigid board fixed in frame work as per specifications covered with reinforced fibre glass tissue and finished with 0.50 mm perforated aluminium sheet. The rate shall be inclusive of all materials, labour for installation, import duty/excise, all taxes & levies, octroi etc. and nothing extra shall be payable.	5	Sqm		
8	Supply and fixing of 25mm size hard pvc pipe for drain with 6mm thick insulation for avoiding the condensation. Necessary supports as required as per specification. The rate shall be inclusive of all materials, labour for installation, all taxes & levies, octroi etc. and nothing extra shall be payable. Nothing extra shall be paid	15	Metre		
				<b>Total Amount</b>	

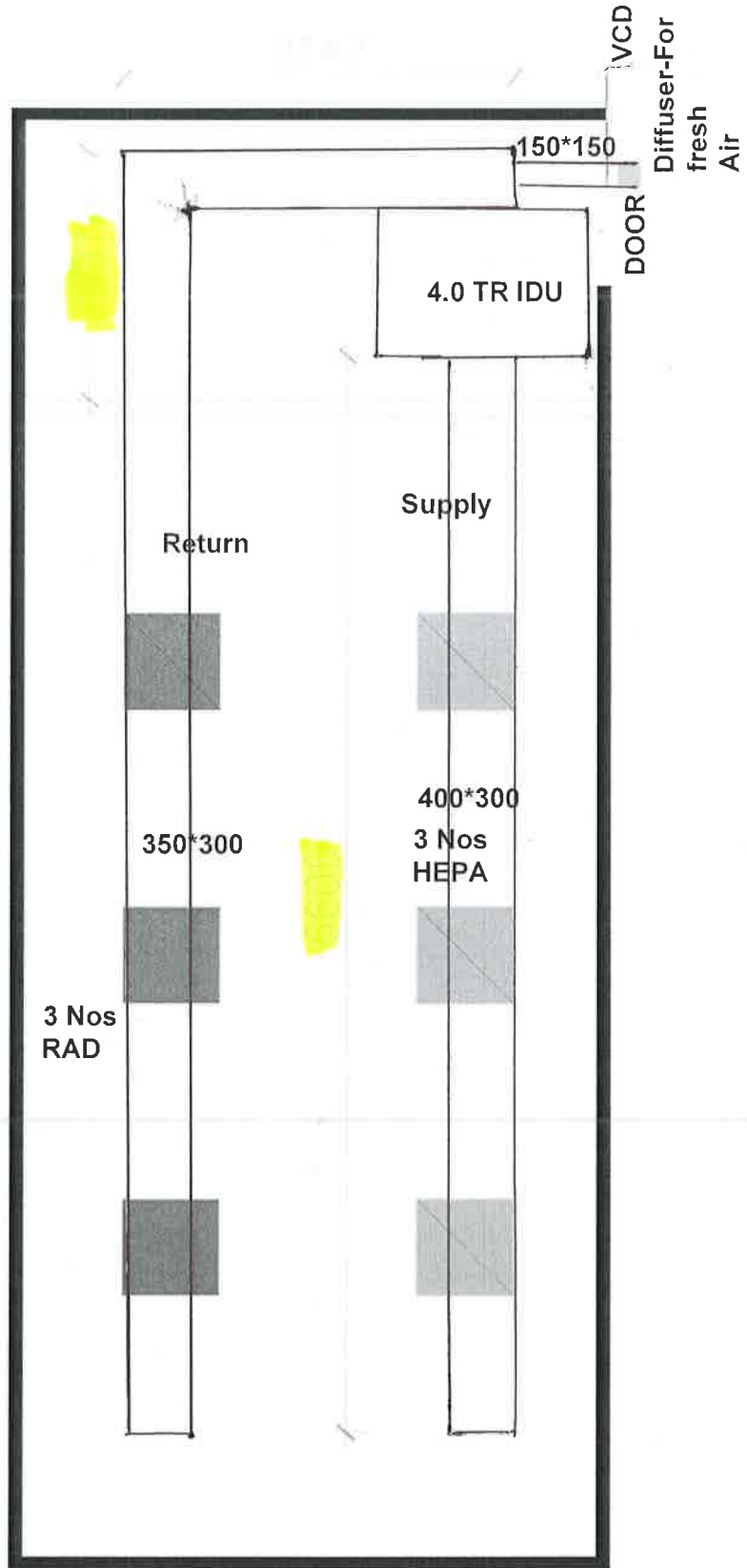
Amount in Words

Note : All Rates Inclusive of all taxes nothing extra shall be paid

Sign & Seal of Agency







Note: All Dimensions are in mm

## CELL CULTURE LAB

