

Indian Institute of Technology Hyderabad Kandi 502 285, Telangana, India Phone: 040-23016042: Fax: 040-, 23016032 E-Mail: pur_rd@iith.ac.in

Enquiry No. IITH/CSE/ANTONY/2019/T343

Date: 06.03.2020

NOTICE INVITING TENDER (NIT)

То

Dear Sir/Madam,

Sub:Quotation for Supply, installation & Commissioning of Smart Rack -Reg.Ref:Our Enquiry No. IITH/CSE/ANTONY/2019/T343 dated 06.03.2020Last date & time for submission of offer:20.03.2019 at 03:00 pm.Date & Time of Tender Opening :20.03.2019 at 03:30 pm.

This Institute is interested in purchase of the following material as per the enclosed terms and conditions.

S.N o.	Description	Qty Nos.
1	Supply, installation & Commissioning of Smart Rack (Technical Specification as per ANNEXURE-1 of NIT)	01 No

For any technical query related to enquiry you may feel free to contact Dr Antony Franklin Department of CSE Email: antony@iith.ac.in

Kindly acknowledge receipt.

Yours faithfully,

BJRag 0632020 **JAGADESWARA RAO B** Assistant Registrar

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TERMS & CONDITIONS:

1.	We are interested in the material available from Ready Stock / Within 08 weeks.
2.	The rate quoted should be free delivery at IITH Stores, Kandi 502285 / FOR Imports upto CIP Hyderabad Airport basis.
3.	The complete offer should be typed in the letterhead of the tenderer. The offer should be signed & stamped by Company's authorized signatory.
4.	Rates quoted in the tender should be inclusive of GST, and should be valid for 90 days. Breakdown details of packing, forwarding, freight and insurance charges in percentages should be shown separately. The goods should be insured in our favor against all risks from Warehouse to warehouse.
5.	The rate of GST should be clearly indicated wherever chargeable. However, the concessional rate of Central Sales Tax admissible to research institutes on purchase of scientific equipments from certain States is applicable to this Institute.
6.	The Delivery period should clearly have indicated and strictly adhered to in the event of an order is placed against your offer. Late delivery will attract liquidated damages @1 % per week subject to a maximum of 10% of the total value of supply order.
7.	Incase any of the items mentioned on pre-page is on the current rate/running contract please quote the DGS&D rate contract reference and also send a copy of the latest R.C.
8.	Payment for the supply will be made by Cross Cheque/RTGS/NEFT through State Bank of India, IIT Hyderabad Branch, Hyderabad, 502 285 within 30days from the date of receipt and acceptance of material and your bill in triplicate original signed over a revenue stamp affixed. In case of Equipment/Instruments the payment will be made after installation of the material. No Payment in Advance will be done.
9.	Quotation erased & overwritten will be summarily rejected unless corrections are authenticated with the tenderer's signature.
10.	The Offer should be submitted strictly as per the terms and conditions failing which the offer will be liable for rejection. In the event of the tenderer remaining silent on any terms& conditions of the NIT, it will be presumed that the tenderer(s) have accepted such terms and conditions in the event of any order/contract on them.
11.	No deviation of the terms and conditions is acceptable. Terms and conditions which are in deviation of the tender terms are liable for rejection without making back reference to the tenderer.
12.	Conditional tenders will not be accepted.
13.	(a) Quotation should be sealed & addressed to The Director, Indian Institute of Technology Hyderabad, Kandi 502285, Telangana. India. The cover should be sealed with wax and super scribed as per subject and enquiry No. mentioned on pre page. Quotation delivered personally should be delivered to the Receipt &Dispatch Section of IIT Hyderabad. Late & Delayed tenders will not be considered
14.	IIT Hyderabad does not take any responsibility for loss of tender in transit.
15.	The tender(s) should enclose the list of similar item(s) if supplied to any of the IIT Laboratories for the past three years with complete address, telephone /Fax No. and the contact person to whom they have supplied and installed similar item(s) with their tenders along with the prices finally paid.
16.	Warranty & Maintenance contract: The supplier shall warranty equipment, system components for a minimum period of One years following satisfactory installation and commissioning. The defects, if any, during the guarantee/warrantee period are to be rectified free of charge by arranging free replacement wherever necessary. Any expenditure including government levies on account of the replacement are to be borne by the supplier/agent.
	The supplier shall offer an annual test & maintenance agreement for three years, consisting of the following:
	Regularly and systematically examine, test and adjust all system components. Submit test reports that certify all components have been tested and the system is in proper working order and functions in accordance with this specification.

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17.	a) Spares & service Support : The instrument supplied shall be of latest technology and model, so that you would support with onsite service and spares.
	b) Complete system pre-installation requirements.
18.	Installation & Testing: The installation shall be completed with in a week from the date of intimation regarding the arrival of the equipment in the institute. A Penalty equivalent to 1% of the value of the goods will be levied for every week's delay in installation. The installed system shall be performance tested at our premises in accordance with the manufacturer's/supplier's recommendation/specifications. Tests shall demonstrate the proper operation of the instrument and all components.
19.	Commissioning & Training: The supplier shall perform on site installation, commissioning & startup of all system components in order to provide fully functional; system. The supplier shall train onsite institute's personnel on the operation and maintenance of the system framework. The supplier shall perform system check-out /start-up and /or training functions free of cost .
20.	The Director, IIT Hyderabad reserves the right to reject or accept or withdraw the tender in full or part and to increase or decrease the quantity without assigning reason thereof.
21.	The quotations are liable to be rejected if any of the above conditions are not complied with. The quotations should be complete in all respects duly signed wherever required. Incomplete and unsigned offers will not be considered. Quotations that are unclear leave room for interpretation will be considered non-responsive and will not be evaluate.
22.	 ARBITRATION: a) Unless otherwise specified, in all cases of disputes which cannot be settled by mutual negotiations, the disputes or differences shall finally be settled and binding on both parties by arbitration in conformity with the rules of Indian Arbitration Act, 1940. All disputes or differences what so ever arising between the parties out of relating to the construction, meaning and operation or effect of the general terms and conditions including the Purchase Order or the breach thereof shall be settled by Arbitration Act, 1940 and the award made in pursuance thereof shall be binding on the parties. b) Performance of the purchase order shall continue during arbitration and any subsequent proceedings. c) The Jurisdiction and Venue of arbitration shall be Hyderabad. The Arbitrator will be the Director, IIT Hyderabad, or his nominee.
23.	RISK PURCHASE: If you fail to deliver the ordered material within the maximum delivery period stipulated in the purchase order, we may procure the same items in such a manner as it deemed appropriate for us. And, if we happen to incur any additional cost in the process of our procurement of similar materials you are liable to pay the same.
24.	 FORCE MAJURE: If the performance of the obligation of either party is rendered commercially impossible by any of the events herein-after mentioned, the same party shall notice of 15 days from the date of such an event in writing to the other party. i) Government regulation; (ii) Legislation; (iii) Natural disasters; (iv) Strikes; (v) Lockout; (vi) Act of God.

ASSISTANT REGISTRAR

Technical Specification of Integrated Data Centre for 1 Racks Solution: -

The Data Centre shall be a self-sufficient data center with rack based infrastructure approach and optimized system solution. Power and cooling system should be concurrently maintainable.

The vendor shall supply all the items necessary for the erection & commissioning of the Data Centre including but not limited to the following; these are the minimum specifications, bidder will be responsible for providing any additional equipment such as UPS, Rack etc. to meet the requirement of the solution provided by Bidder.

The items and quantity required to implement the Integrated Data Centre Infrastructure is elaborated in the tables below:

OEM Criteria : Must have service in Hyderabad. Must Have ISO 14001, 18001 certifications. Must have installation based of proposed in Hyderabad.

SI. No	Details	Specification
1.	Integrated Server Room Enclosure	The Integrated Data Centre (1 Rack Solution of 42H U) shall be a self- sufficient data centre with rack based infrastructure approach and optimized system solution, power and cooling system should be concurrently maintainable.
2.	Dimension (HXWXD) in Mm	The Integrated Server Room Solution should have a foot print of 1000mm Width, 2000mm Height & 1200mm Depth (minimum)
3.	Main Electrical Distribution Panel, rack- mount	Data Center electrical delivery path will have 1no, of 19" Rack mounting electrical panel box complying to Indian relevant electrical codes for Panel fabrication and support structure with following specifications. All MCB should be type D. Incomer Feeder: 63 A, 4Pole, 10kA, MCB.
		 Outgoing Feeders: 63A DP MCB, 10 kA (3 nos) 25A DP MCB, 10 kA (3 nos) 6A DP MCB, 10 kA (2 nos) 6A DP MCB, 10 kA (2 nos) MCB, 63A DP - 3 Nos. (for 10kVA UPS, 1no Spare). Panel box should not use more than 4 U space in the IT Rack. All mounting & connection accessories - 1 set (includes termination, ferruling, nuts, washers, etc). 1C X 10 sq.mm copper conductor, XLPE unarmoured cable for Cabling & Terminations for 10 kVA UPS between Raw Power DB, UPS DB & UPS
5.	UPS Power Distribution Panel (Rack Mountable)	UPS Distribution Panel: Rack Frame Mountable with 30A NEMA SOCKETS WITH PLUGS (3 nos) ,C-13 SOCKETS (4 nos), Power Indicator & 3 core 10sq mm cable of 1.5 mtr length with open end.
6.	Installation, testing & commissioning for electrical works	The scope for installation, testing & commissioning for electrical works including all components indicated in the above line items is in the scope of the bidder.

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7.	Minimum 7kW	Outdoor Type Air-conditioning Unit with Redundancy - 7kW
	Sensible Cooling	DX Type Close Coupled (in a rack) Air-conditioning system with high CFM
	System for each	& sensible cooling Indoor and Outdoor units. The system shall not require
	Rack with Redundancy	raised floor & shall have complete hot and cold aisle separation. Cooling
		capacity should support 7kW per rack & should ensure an energy-efficient
		dissipation of heat. The external unit (condenser) should be designed on
	Cooling	the basis of variable scroll type and for the R 407C refrigerant. The internal
	Output	unit should not be consumed any rack U space.
	Range: 7	The System should include
	kVV	(i) 2 x Heat Exchanger (evaporator) for placing on the inside of the system
	Cooling	(ii) 2 x External ODU unit works with R 407C refrigerant
	Noise	(iii) 1 x Sequencing box
	Level 48-	The line of the state of the second to indeer units (overseter) and
	49 dB (A)	The cooling system should be with separate indoor units (evaporator) and
	Voltage 230/1/50	unit to eliminate noise and vibration inside the indoor unit. The cooling
	V/Ph/Hz	system should include an integrated heat exchanger mounted on the inner
	External	side of side walls with 4 fans. The air routing in the Rack should run
	Unit H /W	horizontal, i.e. the cold air exits in front of the IT components and the warm
	/ D	air drawn in at the rear. The sequence controller should run one cooling
	584/846/2 98 mm	unit at a time, and perform a changeover, in case of failure of any of the
	Refrigeran	cooling units. Drain for condensation water (without pump). Power
	t R 407C	connection for outdoor unit. 230 VAC / single phase / 5012 via Stabilizer.
	 Injection 	a set with New London set and interim temperature and humidity profile
	pipe 10	Supported with N+N redundancy to maintain temperature and number profile
	• Suction	
	pipe 16	
	mm	
	Cooling	
	Operating Range:	
	45°C	
8.	Supply ,	The outdoor unit should have variable scroll type compressors to ensure
	Installation,	commissioning of the High CEM high sensible cooling unit including related
		works
	of high sensible	
	& high CFM	
	close coupled	
	cooling system	The second secon
9.	Copper piping	Retrigerant copper piping with (19 mm / 13 mm thick) closed cell
		elastometic multe rubber tubular insulation between each set of induct a
	di tan	properly supported with MS hanger. Transmission wiring between indoor to
		outdoor unit in a suitable PVC conduit - 1.5 sq.mm 4 core. PVC Drain
		Piping - 25mm dia. Rigid PVC piping complete with fittings, supports as per
		specifications duly insulated with 6mm thick nitrile rubber tubular sleeves
10	Refrigerant Gas	Supply of R 407C, refrigerant gas, and charging it, after cleaning the line,
		compressor oil fill and pre-testing for leakage. Lesting the line alter
		charging the gas as per standards and directions

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11.	Monitoring	Each set of intelligent rack should include IP based CMC III basic
	system and	environmental controls of following features:
	access control	Temperature/ Humidity Sensor
		Water Leak Detection system
		Automatic emergency door opening kit
		Access control - Biometric reader for front door
		 Hooter with signal piller
		Email and SMS alert should also be provided
12.	Rack-mountable Fire Detection and Suppression system (Master)	Fire detection and suppression master system must be compact enough to occupy only 1U space in each IT rack. 1U Rack Mountable device should have built-in high sensitivity smoke detection with active air-sampling (VESDA). Also the NOVEC 1230 suppression system cylinders must be built-in within the 1U detection device with sufficient quantity. The 1U Fire detection and suppression system should be equipped with fire panel, with actuator, discharge nozzle, piping complete with accessories. The system should include a manual abort option. This device should be monitored using potential free contacts. It should have possibility to expand up to 4 nos. of IT Rack using master & slave configuration.
13.	Fire detection	Bidder shall provide installation related services for fire detection system &
	and suppression	Novec1230 gas based automated suppression system.
		The design, equipment, installation, testing and maintenance of the Clean
	related services	requirements set forth in the latest edition of the NEPA Standards
14.	42U Server /	The Proposed Racks has to be designed to meet the safety requirements
	Network Rack	of the modern data center with IP 54 category with min.1000kgs load
		bearing capacity of Rack. Both the front and rear door should have a
		comfort handle with different locking options. The rack should be suitable
		for housing a high performance Indoor cooling unit. Cable entry should be
		the Back Minimum 181 space must be available to mount the IT
		equipment's
		Technical specifications:
		Basic Structure: Frame made of sturdy frame section construction.
		consisting of 9 folded rolled hollow frame section punched in 25mm
		DIN pitch pattern. All profile edges are radiuses. The corners are
		stiffened with welded MS die-cast, copper coated, corner connectors,
		removable top & Bottom cover with Cable entry provision. Frames are
		bayable, scalable and modular. Load carrying capacity: Minimum 1300kgs
		DK PS Rack of Size : 1000W X 2000H (42U) X 1200D fitted with Front Glass Door with 130° binges. Rear Sheet Steel Door with 130° binges. Set
		of Side Panel, 2 pairs of 42U 19" L - type angles & special assembly kit for
		mounting 19" angles & punched sections with "U" Marking Stickers, top
		cover, bottom cover with cable entry provision, 100mm height base plinth,
		with 12 nos of IEC C13 Sockets, Indicator switch, 4 mtr newer chard with
		IEC C20 plug for each rack Ergo-form handle with unique key lock insert
		Component Shelf 720mm deep rack, Vertical cable managers with cable
		loops, Hardware pack of 20 , Foam insert for vertical shielding & installed
	Γ	between racks, Air baffle plate, Metal Shunting Rings 90x60 (pack of 10).
		I ne solution should include blanking panels (1 U, ABS Material) for
		Rear Doors must be equipped with Automatic Door Opening custometer
		in case of cooling failures.
		Color: RAL 7035

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15.	Fault Signals	Provisioning of monitoring fault signals
16.	Remote Monitoring system with Graphical user interface with e- mail alerts.	The central monitoring system should be 1U rack-mount and should be able to monitor up to 32 sensors / CAN-Bus connection units with option of redundant power supply. The following devices to be monitored: Temperature/Humidity, Water Leakage, Fire Detection & Extinguishing, Air-condition Units, Door access sensor. It should also monitor & control Automatic Door Opening of 2 Doors. It should provide a single TCP IP interface for remote monitoring of all components and generate email alerts and warnings. The central monitoring device should also be connected to Signal Pillar with Audio & Visual alarm extension. The central monitoring system having CAN bus sensor integration technology should be modular and scalable from future expansion point of view. It should be able to operate with Protocols: TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, XML, Syslog, LDAP. The system should have feature to generate SMS alerts in case of future demands.
17.	Complete Installation, testing & commissioning	Installation, testing & commissioning of complete Integrated Data Centre.
18.	Installation and Training	 (i) Installation of Mini Data Centre and the relevant components has to be carried out by qualified technicians (ii) 01 day on site training to the user at site

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