

भारतीय प्रौद्योगिकी संस्थान ततरुपतत Indian Institute of Technology Tirupati Settipalli, Renigunta Road Tirupati 517506	दूरभाषसंख्या Phone no: 0877 – 2500335 ईमेल Email : govindak@iittp.ac.in
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Prof. T S Natarajan,
Registrar i/c

Date: 23-7-2018

Public Tender No: IITT/Comp/09/2018-19/05 Due Date: 17-08-2018 at 15.30 hrs.

Dear Sir/Madam,

On behalf of the **Indian Institute of Technology TIRUPATI**, sealed quotations are invited in **two part bid system for the supply of modular data center smart rack systems**. The equipment mentioned in Item-1 (in the table given below) is to be door delivered at IIT Temporary Campus, Settipalli, Tirupati, Chittoor District, Andhra Pradesh. The equipment mentioned in Item-2 (in the table given below) is to be door delivered at IIT Transit Campus (permanent-campus site), Yerpedu-Venkatagiri Highway, Tirupati, Chittoor District, Andhra Pradesh.

Specifications:

Item No.	Item name (specs. given below)	Qty.
1.	40KVA modular data center smart rack system	1 No
2.	7KW modular data center smart rack system	2 Nos

Item1: 40KVA modular data center smart rack system specifications/features:

Item1 description: 40KVA smart rack is required for housing 4 high-end servers and HPC clusters, and their accessories. The total area of the data center is around 9500mm x 3500mm. The tentative space planned for smart rack system (including front and rear aisle space) is around 5500mm x 1000mm. The server room has a true floor and true ceiling construction in the first floor of a G+3 building.

Item1 40KVA smart rack system features:

The integrated smart rack system should support dual active power and cooling distribution paths, with one path typically active. The system to have redundant components of cooling and battery backup.

I. 40KVA Rack parameters:

- A. Rack to be fitted with front glass door and rear sheet steel door with 4 point locking system and comfort handle with locking. Rack design should support closed loop high performance cooling.
- B. IT load: Out of the 4 racks, a minimum of 120U usable space is required to accommodate IT and network equipment and devices.
- C. Overall dimension should not exceed 4500mm width, 1800mm depth, 2300mm height.
- D. The door to be interchangeable at site, at any point of time.
- E. Footprint should include separate panel housing for fire suppression and power distribution.

- F. Side panel should be with PU gasket with screw fixing to avoid air leakage.
 - G. IP54 protection rating when installed (i.e, after joined to neighboring cooling unit for closed loop).
 - H. Surface finish: Nano ceramic coated, electro-dipcoat primed to 20microns and powder coated with textured polyester RAL 7035 to 80 to 120 microns.
 - I. Vertical cable managers with cable loops
 - J. Horizontal 1U cable manager with PVC cable loops.
 - K. Horizontal earthing busbar per cabinet, 20points for earth connection.
 - L. Blanking panels
 - M. Baying kit
 - N. All racks should be certified according to ISO 9001, 14001, 18001. Complying with EIA 310, DIN 41494, and IEC 297 standards.
 - O. 32A vertical mount three phase IP-based PDU of type IEC C13 and IEC C19 combination. Each rack to have two PDUs.
 - P. Each PDU should have IP-based sensors including power wattage consumption.
 - Q. Separate panel for housing active fire suppression and power distribution. Integrated cold front aisle, and hot rear aisle. Server racks should get power feed from two independent 2 x 40 KVA UPS systems for redundancy.
 - R. Redundant electrical distribution with proper MCCB and MCB arrangement to be provided.
 - S. Modular integrated infrastructure: Should have provisions to add extra racks in the future.
- II. Precision air conditioning system features:
- A. Precision air conditioner with variable capacity cooling, heater, humidifier/dehumidifier to cater to IT load approximately of 40KVA and in N+N topology (i.e., 40KVA+40KVA) for total of 4 racks (typical 42U).
 - B. Supply, installation, testing, and commissioning of inrack DX type Air Conditioning units designed specifically for high sensible heat ratio with variable cooling technique to match the low latent loads of systems to be installed in the integrated cabinet for effective and uniform distribution of cooling.
 - C. Useful cooling output: 12KW at 30 degC ambient temperature at place of installation of the condenser. 10KW at 45 degC ambient temperature at place of installation of the condenser.
 - D. Air throughput 4800 cubic meters/h.
 - E. Power supply 400V, 3 phase, N, PE, 50/60Hz (Voltage range 380-460V)
 - F. Refrigerant R410a.
 - G. Refrigeration circuit with a high efficiency, fully hermetic variable capacity compressor with crankcase heater, safety valve, filter drier, moisture indicating sight glass, liquid line solenoid valve, and an externally equalized expansion valve.
 - H. Copper piping with insulation to be used, and the scope of work lies with the OEM and is requested to assess the distance between ODU and IDU by visiting the site.
 - I. The in-rack cooling unit to be mounted on the side of the rack, with which it forms a closed system. The warm server air is drawn in directly from the rear of the rack and the cooled air is blown back in front of the 19" equipment level from the side, over the whole height of 42U enclosure.
 - J. Each compressor to be equipped with a pre-set high and low pressure switches for protection against high condensing and low evaporating temperatures. The low pressure switch to feature an automatic reset (with an adjustable delay for winter start-up).
 - K. The unit to be provided with additional protection against high ambient temperature. When the temperature goes over the design conditions, the unit remains in operation with partial load (20% decrease against required). If such protection is not sufficient, High pressure switch shall generate an high pressure alarm and the unit shuts down - manual reset is also required.

- L. The inclined evaporator coil is manufactured from copper tubes, mechanically bonded to hydrophilic painted aluminium fins, with a stainless steel condensate drain pan. The large face area/low velocity coil flows precise control of temperature and humidity during cooling and dehumidification, and is designed to optimise fluid velocity and minimize pressure drop.
- M. Fan features section:
 - 1. Two plug EC direct drive fan, high efficiency, external rotor electronically commutated (EC) motor with integrated electronics,
 - 2. True soft start characteristics (inrush current lower than operating current),
 - 3. Backward curve, corrosion resistant aluminium fan wheel, maintenance free design and construction.
 - 4. The fan should be protected over temperature of motor, electronics, locked rotor protection, short circuit of motor output.
 - 5. Fans are of IP54, Protection class F.
 - 6. Industrial-grade fans capable to run 24/7.
 - 7. Hot swapping: Fans shall be able to exchanged quickly even during operational conditions.
 - 8. Fans to be installed in the cold air section to increase their service life.
- N. Cabinet and frame: The unit to be powder painted panels with at least .5 inch insulation. The frame to be painted with a powder coat finish to protect against corrosion. The unit is totally front and rear accessible for easy component removal.
- O. Air filtration: The filter cells are to be made up of two deep pleated 4" filters rated MERV8 following ASHRAE 52.2 (45% of ASHRAE 52.1) or G4 following EN779, located within cabinet, and accessible from the rear of the unit. Frame of the filter shall be made of galvanized steel. Clogged filter alarm to be available as per standards to send visual alarm to display.
- P. Microprocessor based control: Air conditioning models should be controlled by microprocessor-based controller. It can be programmed to control the function of every device within the unit via I/O. The controller should allow setting and monitoring of room parameters. Unit utilizes multiple temperature sensors placed at the rack inlet, to ensure management and control of temperature by rack. Each unit should be connected up to 10 sensors. The controller should allow setting and monitoring of the following parameters:
 - 1. air inlet temperature,
 - 2. air supply temperatures (remote sensors at rack inlet),
 - 3. return temperature set-point,
 - 4. supply temperature set-point,
 - 5. return temperature band,
 - 6. supply temperature band,
 - 7. humidity (inlet),
 - 8. humidity and dehumidifier set-points,
 - 9. humidity and dehumidifier bands,
 - 10. rack min, max, and average temperature
- Q. Controller-based warnings/alarms:
 - 1. high supply temperature,
 - 2. low supply temperature,
 - 3. high return humidity,
 - 4. low return humidity,
 - 5. loss of airflow,
 - 6. compressor low pressure,
 - 7. compressor high pressure,
 - 8. electrical heat high temperature (when applicable)
 - 9. clogged filter,
 - 10. customer input (No. 4 inputs),
 - 11. LP transducer fail,

12. call service (customer input),
13. high temperature (customer input),
14. unit hours exceeded,
15. humidifier hours exceeded,
16. supply sensor failure,
17. network failure,
18. humidifier problem,
19. digital scroll high temperature,
20. smoke detected,
21. fire alarm,
22. rack sensor failure,
23. any additional warnings or alarms.

R. Controller features:

1. Status report of the latest event-messages (at most 400 messages) of the unit.
2. Input for remote on-off and volt-free contacts for simple remote monitoring for low and high priority alarms: high/low temperature, high/low refrigerant pressure, fan/control failure, compressor/control failure, and others to be made available.
3. LAN management: Functions to be provided as per standards, which includes stand-by (in case of failure of the unit in operation, the second one starts automatically), and automatic rotation. At least one unit in the LAN has to be equipped with ColdFire large display.
4. Automatic restart to be provided within 30 secs after a power failure.

S. The sight glass, liquid solenoid valve and expansion valve for each circuit for each circuit are mounted in a service compartment, isolated from the air stream to allow checking and adjustment while the unit is in operation.

T. Condenser: The condenser should be with the fan speed controller designed and set for usages of R410A refrigerant. Condenser should be worked in the ranges between - 20 degC to 46 degC ambient temperature. The condenser frame should be made up of a sturdy GI structure.

U. Condensate management shall be integrated into the unit. Any condensate shall be collected in a collecting tray in the base and from there discharged to the outside via a hose.

V. Humidifier: The unit is to be fitted with a canister type steam humidifier suitable for use with water of varying degrees of hardness, provided that the water is not treated or demineralised (conductivity range 125-500microS/cm). The humidifier is complete with water inlet valve, outlet valve, and a maximum water level sensor, disposable cylinder, steam distributor and electronic controls. Humidifier control is of the ON-OFF type, can be also disabled by remote contact. Humidifier should be removable from the rear of the cabinet.

III. Details of Hot-swappable modular UPS and battery scope:

- A. Modular UPS that should be hot-swappable (in case of repair, the replacement should take place without hindering the operation).
- B. Double conversion and IGBT technology
- C. Full IGBT rectifier/battery charger
- D. IGBT based inverter.
- E. Output parameters:
 1. 2 * 40 KVA in 2 quantities (i.e., 2 sets of rack mount UPS for redundancy) are required.
 2. Parallel redundancy N+N.
 3. Rack mount UPS with P.F of up to 0.9 at 30 deg C, and efficiency between 92% and 94%.
 4. Capacity: 20 KVA (0-30 deg C), at least 16KW (31-35 deg C), at least 14KW (36-40 deg C).
 5. Voltage regulation to be (+/- 1)%.

6. Voltage THD < 2% on linear load, and <= 5% on non-linear load.
 7. Frequency 50/60 Hz, and Frequency regulation to be (+/- 2) Hz.
 8. 3-Phase, 3-wire, N+PE/1Phase, L-N + PE.
 9. Slew rate 0.2 Hz/s.
 10. Crest factor 3:1 max
 11. Recovery time to be 60 milliseconds.
 12. Overload capacity to be <105% - continuous; 105-125% - < 5 mins; 125-150% - < 1min; > 150% - < 200milliseconds. After overload shift to bypass.
 13. Transfer time from mains to battery in 0 millisecond.
 14. Transfer time from inverter to bypass in synchronization mode to be at most 1 millisecond.
- F. Input parameters:
1. 3-Phase, 3-wire, N+PE.
 2. Nominal voltage 380/400/415V.
 3. 3-phase 228Vac-478Vac.
 4. Frequency: 50/60 Hz, and Frequency range to be between 40 Hz and 70 Hz at full load.
 5. Power factor: >0.99 at full load.
- G. Bypass parameters:
1. Voltage range: +15%, -20%.
 2. Frequency: 50/60 Hz.
 3. Frequency range: +/-20%.
- H. Battery
1. The battery back up should support for at least 10 minutes on full load, and both UPS and battery should be mounted inside of the cabinet.
 2. 12V SMF Batteries must be sealed and maintenance free. Number of battery blocks to be between 32 and 40.
 3. Battery voltage 384-480Vdc.
- I. Environment and mechanical parameters
1. Operating temperature: 0 to 40 deg C.
 2. Storage temperature: -40 to 70 deg C.
 3. Relative humidity :95\% non-condensing.
 4. Altitude: 2000 meters.
 5. Temperature de-rating <2000m, derating according to GB/T3859.2 when higher than 2000m.
 6. UPS noise must be better than (<=) 55dB.
 7. IP20 protection.
 8. Monitoring software: SNMP, dry contact card, site monitoring/shut down for multiple servers to be provided.
 9. Forced air-cooled ventilation.
 10. Cable entry type: terminal block
 11. Built-in LBS
 12. Parallel configuration: 3+1 built-in provision
- J. Supply, install, test and commissioning of true numbers of true online with double conversion and Full IGBT rectifier/battery charger to be provided.
- K. Scope includes battery bank connections, providing safety barrier for all bus bars and cable connection leads to battery bank.
- L. Energizing of UPS and battery bank commissioning.
- M. Provisions for easy expansions for future needs.
- N. Electrical panels and associated wiring that are to be erected for supply of power to the UPS, cooling, and other required systems are to be done by the vendor.
- O. UPS brands are to be chosen from the approved makes.
- P. All components to be clearly identified using labels including battery cells individually.
- Q. Remote status and alarm tests to be done.

- R. Product certificates, factory test certificates, inspection report, and field test reports to be provided.
- IV. Access control, environment monitoring, and detection system features:
- A. Biometric based access control: To allow access to authorized personnel only. The front doors will be provided with magnetic locks, and will operate on fail-safe principle through one common biometric access control system.
 - B. Rear doors to open through mechanical lock and key mechanism. The system should be configurable for user defined access, built-in Real Time Clock, calendar, complete database stored locally and shall be capable of operating offline on stand alone mode.
 - C. The system should record, archive, and report each and every activity (such as permission granted and/or rejected) with log formats.
 - D. Fail safe operation for the case of no-power condition, and abnormal condition such as fire, theft intrusion, loss of access control.
 - E. User presents finger to the biometric reader which is unique to each employee. The pattern is read and compared with stored data to grant/deny access.
 - F. The monitoring system to have TCP/IP connection to the data network via Ethernet, configured via Web/USB. The unit should send alarms via an email-server and connect to the network management system via SNMP/OPC.
 - G. Monitoring and alarm management for all physical parameters shall be provided via SNMP over Ethernet. A display with operating keys shall be integrated on the front of the unit to display and set the parameters.
 - 1. Water leakage detection system.
 - 2. Temperature and humidity sensor, door sensor and alarm.
 - H. Temperature monitoring and alarm should provide at least three levels of temp setting to notify appropriate L1, L2, and L3 service teams depending on the severity of the exceeded temperature to the equipment.
 - I. Active fire suppression system:
 - 1. This includes fire detection, smoke extraction, and extinguisher system. The extinguishing process should automatically start when the fire alarm is triggered.
 - 2. Novec 1230 gas based fire suppression system, as per the National Fire Protection Association guidelines is required. Designed and installed as per NFPA2001-2012 Edition. SMPV, PESO approved cylinder filled with Novec1230 is to be installed in specially designed modular rack.
 - 3. The entire enclosed volume of the rack cabin is to be protected with fire detection and fire suppression system. The front doors are to be secured by access control system.
 - J. Rodent repellent system.
 - K. Support for integration to building management system.
- V. Other features/services:
- A. Electrical work: LT panels, earthing systems, cabling & tray.
 - B. Service engineer until system gets fully ready for production use, and subsequently training is to be provided to the concerned operational teams of the institute.
 - C. Operation and service manual with technical details, electronic drawings, circuit diagrams need to be supplied.
 - D. Emergency door opening, in case of cooling failure or high temperature alarm.
 - E. Critical components like cooling (for item1 and item2), and UPS (for item1) are expected from a single OEM.
 - F. Acceptance tests will be carried out after installation and the systems will be taken over only after successful completion of the acceptance tests.

Item2: 7KW modular data center smart rack system

Item2 description: 7KW smart rack systems (in 2 Nos.) are required for housing an IT load with usable space of at least 25U rack units.

Item2 7KW smart rack system features:

- I. 7KW Rack parameters:
 - A. Two racks each capable of handling 7KW of IT load.
 - B. Dimension of the rack is about 2000mm height, 800mm width, 1000mm depth.
 - C. Integrate biometric access control system as the main access.
 - D. Mechanical lock system at the rear side.
 - E. Each rack would need to provide at least 26U of usable rack space ('U' in server rack units).
 - F. Rack to be fitted with front glass door with biometric access control system and rear sheet steel door with 4 point locking system and comfort handle with locking. Rack design should support closed loop high performance cooling.
 - G. The door to be interchangeable at site, at any point of time.
 - H. Side panel should be with PU gasket with screw fixing to avoid air leakage.
 - I. IP54 protection rating when installed.
 - J. Surface finish: Nano ceramic coated, electro-dipcoat primed to 20 microns and powder coated with textured polyester RAL 7035 to 80 to 120 microns.
 - K. Vertical cable managers with cable loops
 - L. Horizontal 1U cable manager with PVC cable loops.
 - M. Horizontal earthing busbar per cabinet, 20 points for earth connection.
 - N. Blanking panels
 - O. Baying kit
 - P. All racks should be certified according to ISO 9001, 14001, 18001. Complying with EIA 310, DIN 41494, and IEC 297 standards.
 - Q. 32A vertical mount three phase IP-based PDU of type IEC C13 and IEC C19 combination. Each rack to have two PDUs.
 - R. Each PDU should have IP-based sensors including power wattage consumption.
 - S. Integrated cold front aisle, and hot rear aisle.
 - T. Redundant electrical distribution with proper MCCB and MCB arrangement to be provided.
- II. Rack mounted Precision air conditioning system with other specifications as mentioned in the appropriate (precision air conditioning) features of Item1, given in Section II of item1.
- III. Details such as fire suppression, water leak detection, temperature sensor, humidity sensor, door status sensor, other environment control and security features access control systems as mentioned in the appropriate (access control, environment monitoring, and detection system) features of Item1, as given in Section IV of item1.
- IV. Other features and services as mentioned in the appropriate 'Other features/services' section in Item1, as given in Section V of item1.
- V. UPS supply is not required (for this 'Item2' only). Institute will provide this facility.

Please ensure that the specifications are basic essence of the product. It must be ensured that the offers must be strictly as per our specifications. At the same time it must be kept in mind that mere copying of our specifications in the quotation shall not make the parties eligible for consideration of the quotation. A quotation has to be supported with original catalogue or digital copy but not of photo copy in exceptional circumstances of the quoted model duly signed by the principals and the same must be sent along with the technical bid. The quoted model should not become obsolete for a minimum period of 5 years (This is for the availability of spares). Therefore, the model quoted should invariably be highlighted in the leaflet/literature enclosed with the quotation. Non-compliance of the above shall be treated as incomplete/ambiguous and the offer can be ignored without giving an opportunity for clarification/negotiation etc. to the bidder. The committee shall consider item-wise bidding namely, Item 1, Item 2, and Item 3 (from the table above)

The technical bid shall be evaluated for acceptability by the technical committee and may call the tenderers for discussion. If necessary, the committee may modify the technical specification to suit the requirement of IIT Tirupati. In such case the opportunity shall be given to all the participating bidders for submitting the revised bid as per modified specifications, if any.

The bidder shall ensure that the bid submitted by him includes all equipment, hardware and software for full execution of contract to be awarded and cannot charge extra for additional hardware and software items required to meet the operational requirement at the installation and commissioning stage.

The eligibility criteria for participation in bid are mentioned below:

1. The Bidder must be an Original Equipment Manufacturer (OEM) or his Authorized Dealer/ Channel Partner having a Direct Purchase and Support agreement with the OEM. In case, the Bidder is a Dealer, a valid LETTER OF AUTHORIZATION from Original Equipment Manufacturer should be produced along the bid.
2. The bidder / OEM should have successfully executed at least two or three Purchase Orders in bulk in the last four financial years by supplying to the Centrally IITs/IISc. Submission of proof of supply and its working condition is a mandatory and bids without documentary proof will not be considered. In addition to this, the bidder/OEM should satisfy any one of the following conditions mentioned below:

Bidder should have executed:

1. At least one Order of 80% of quoted value
 2. At least two Orders each of 50% of quoted value
 3. At least 3 orders each of 40% of quoted value pertaining to Work Station or Servers
3. The bidder should be registered under the Companies Act 1956 or a registered firm. Registration certificate to this effect must be produced. The bidder /OEM must have well established Service Centre either in Karnataka, Tamilnadu, Telangana, or Andhra Pradesh.
 4. In case the bidder is a System Integration Partner of the OEM, a certificate from the OEM clearly stating the relationship and level of partnership with the Partner and authorisation to the Partner to quote for this specific tender enquiry is to be furnished.
 5. The bidder should have average annual sales turnover of Rs.5 Crores or more during the last three financial years ending 31st March 2018. Attach firm's last 3 years audited profit and loss Account balance sheet duly audited by C.A.
 6. Bidder must be in existence in the desktop computer business for at least in the last five years. Documentary evidence to this effect must be produced along with technical bid.
 7. The OEM/Bidder must have an India based support infrastructure by maintaining a local spares depot in the country. This is to ensure immediate delivery of spare parts from OEM to its channel partner/system integrator.
 8. Bidder should be in a position to provide case logging procedure for both hardware and software failure.

9. Vendor shall possess ISO 9000 certification or equivalent for Quality System implementation. Required evidence shall be provided along with offer.
10. Bidder should be registered under **GST** Act with concerned State Sales Tax Authorities. The bidder should furnish along with the bid document, the relevant **GST** Registration Document and PAN / TAN copies.
11. List of Present Clientele to whom identical or similar equipment supplied in the preceding three years must be produced with contact addresses & telephone numbers.

The supplier should quote commercially proven model of equipment. Prototypes are not acceptable.

The above mentioned basic eligibility conditions are broad guidelines for pre-qualification and the Director/Registrar, in-charge, IIT Tirupati hereby reserves the right to relax / alter / modify / add any or all the conditions.

The interested bidders are advised to go through the conditions envisaged for eligible criteria for participation in the bidding.

Instructions to the Bidder

- (i) **Preparation of Bids:** The bidders must ensure that bids are submitted in **two part bid system (i.e.) Technical bid and Financial bid in separate envelopes.**
- (ii) **Techno-commercial bid:** The technical bid should consist of all technical details/brochures along with commercial terms and conditions super-scribed as TECHNICAL BID with Tender No. and date and time of closing and the bidder's name and address. No prices should be included in technical bid.
- (iii) **Financial (Price) Bid** should indicate item-wise prices for the items with firm and fixed figures and words super-scribed with the Tender No. and date of closing of the Tender with name of supply/work and the bidder's Name and address. The price bid should not contain any conditional clauses. No price escalation for any reasons whatsoever is allowed. All prices should be given in Indian Rupees or USD or Euros etc.
- (iv) The techno-commercial and the financial bids duly signed by the bidders or their authorised signatories with name and seal should be put in separate cover and sealed. Both sealed covers should be put into a bigger cover duly super-scribed with PT No. and due date/time with name of supply /work. **Technical bids must either be spiral bound / stapled together. No loose sheets will be accepted. All pages must be numbered.**
- (v) **Submission of the tender:** The complete sealed bids in all respects shall be sent to the following address well in advance either by post or by courier or by hand so as to reach this office on or before the due date and time specified in the Schedule. The bids received after closing date and time shall not be considered.

The Registrar I/C,
Indian Institute of Technology Tirupati,
Renigunta Road,
Settipalli Post,

Tirupati-517 506, Andhra Pradesh

While submitting the bids, the bidders must sign all the tender documents as a token of accepting of tender documents as well as terms and conditions stipulated therein. Tender documents without signature of bidders or their authorised signatories will be treated as invalid bids.

No conditional offer or terms and conditions will be entertained by the institute and such bids will be treated as invalid.

(vi) The tender documents can be downloaded from IIT Tirupati web site:<http://iittp.ac.in/tenders> on or after **27-07-2018**

(vii) Bid Security (EMD): *EMD either in the form of Bank Guarantee or Demand draft at 2% of the quoted value initially valid up-to 90 days drawn in favour of Indian Institute of Technology Tirupati payable at Tirupati must be sent along-with the technical bid only. The technical bid without EMD would be considered as UNSOLICITED and will be REJECTED. Photo/FAX copies of the Demand Draft/Banker's pay orders will not be accepted. No interest will be paid for the EMD and the EMD (Bid Security) will be refunded to the successful bidder on receipt of Performance Security (Security Deposit) and in case of unsuccessful bidders, the EMD will be refunded on finalisation of tender.*

(viii) Bid security be forfeited without any intimation in such cases as below:-
a) If a bidder withdraws its bid during the period of bid validity
b) If a successful bidder fails to execute the awarded contract
c) If a successful bidder fails to provide performance guarantee

(ix) Micro and Small Enterprises (MSEs) registered with National Small Industries Corporation are exempted from payment of Earnest Money Deposit. However, vendors covered under this category have to submit copy of registration certificate with present validity along with technical bid, failing which, the bid will be disqualified.

(x) Details of our Banker

Name of bank	State Bank of India
Address of bank branch	Settipalli Branch Renigunta Road, Tirupati
Bank Branch code	006677
IFS Code	SBIN0006677
Bank Account Number	35523338208

Modifications to bid:

(xi) The bidder shall make no modifications to the bids after the closing date unless specifically requested by IIT Tirupati. In case certain clarifications are sought by Institute after the opening of bid, then the reply of bidder should be restricted to the clarifications sought. Any bidder who modifies his bid having effect of altering the

value of his offer after the closing date without specific reference by IIT Tirupati shall make himself liable to be debarred from this tender and forfeit the bid security amount.

(xii) Modifications of specification:

The supply to be made by the Supplier under this Purchase order can be modified or changed by the request from the IIT Tirupati provided that for such modifications or changes the parties shall first agree to possible addition or reduction in cost, the delivery date and such other terms and conditions occasioned by or resulting from such modification or change. Such agreement shall be effected either by way of exchange of letters duly signed by authorised representatives of the parties or by signed change order form or by minutes of meeting signed by authorised representatives of the parties, which shall constitute the necessary amendments to the contract. Possible increase or decrease in the contract price shall be calculated in accordance with unit prices. The cost of such additional jobs should be reasonably fixed with reference to the quoted price for such or similar items.

(xiii) Opening of the tender: The Technical Bids will be opened by the tender committee duly constituted in the presence of bidders or their authorised representatives on **17-08-2018 at 16.00** hours. Then the bids will be evaluated by the Technical Evaluation Committee which will decide the suitability of the technical bids as per our requirement and terms and conditions. Once the technical evaluation is completed, the price Bids of only those bidders who are found technically acceptable will be opened in the presence of Authorized Representatives of such bidder(s), if any on a date and at a venue to be intimated by IIT Tirupati to the shortlisted bidders.

(xiv) The bidder shall note that any unsolicited post-tender reduction by them would disqualify them from participating from the bidding and forfeit the security bid.

(xv) Incomplete bids are liable for rejection.

(xvi) Prices: The price should be quoted on FOR: IIT, Tirupati. The bid should consist of basic price, P&F charges, freight, unloading charges, Installation and commissioning charges and applicable taxes.

IIT Tirupati is entitled for concessional rate of GST @ 5% since the equipment proposed for procurement under this tender is meant for research purpose of the Institute.

The Contract will be awarded to single suitable party who meet all our specifications and stands as Lowest bidder.

The total landed cost will be calculated from the information provided by the bidder in their price bids. The bid conforming to the lowest cost would then be considered for award of contract.

The custom duty if any applicable must be shown separately. It may be noted that IIT Tirupati is exempted from payment of custom duty and duty at concessional rate against duty exemption will be paid.

In case of import supply, the price should be quoted on EX-WORKS/FOB/CIP basis indicating the mode of shipment.

Offer validity: The offer must be valid for 90 days from the closing date in the case of indigenous supply and 120 days for overseas supply. If the validity of offers for acceptance is less than 90 days/120 days, the same will not be considered.

IIT Tirupati reserves the full right to accept / reject any tender or all tenderers at any stage without assigning any reason.

Yours sincerely,

Registrar, IIT Tirupati

Important Commercial terms and conditions:

- a) The due date for the submission of the tender is **17-08-2018 at 15.30 hours.**
- b) **Late offer:** The offers received after the due date and time of closing will not be considered. The Institute shall not be responsible for the late receipt of Tender on account of Postal, Courier or any other delay.
- c) **Payment terms:** No Advance payment will be made for Indigenous purchase. Our normal payment terms are 100% within 30 days after receipt of complete supply at our site and acceptance. However in case of high value Purchase Orders, as a special case, payment of 90% of Order value will be made based on pre-inspection of material at supplier's site and also on receipt of goods at our site and clearance by inspection team. Balance 10% of PO value after completion of all inspection and acceptance formalities. For making payment original tax invoice in triplicate, Delivery Challan's, material test certificate, pre-inspection of material at factory, guarantee/warranty certificates must be sent along with material.

In case of import supplies, our normal terms of payment are by Sight Draft. However, other terms of payment such as Letter of Credit also considered as agreed upon by opening LC for 100% in which case 90% payment will be released against proof of shipping documents and balance 10% after successful installation wherever the installation is involved/on receipt and acceptance of material at our site.

- d) **Advance Payment:** No advance payment to indigenous supplies will be made. However in case of import goods, specific percentage of advance payment will be agreed upon for which, the Foreign Vendor has to submit a Bank Guarantee equal to the amount of advance payment and it should be routed through the Beneficiary Bank to the end user Bank. Otherwise, the Indian Agent of the foreign vendor has to submit a Bank Guarantee through a Nationalized Bank of India.

If an Indian agent is involved, the following documents must be enclosed:

Foreign principal's proforma invoice indicating the commission payable to the Indian Agent and nature of after-sales service to be rendered by the Indian Agent.

Copy of the agency agreement concluded with the foreign principal and the precise relationship between them and their mutual interest in the business.

Enlistment with DGS&D as Indian Agent of Foreign principals under the Compulsory Enlistment Scheme of Ministry of Finance.

- e) **Agency Commission:** Agency commission, if any, will be paid to the Indian agents in Rupees on receipt of the equipment and after satisfactory installation. Agency Commission will not be paid in foreign currency under any circumstances. The details should be explicitly shown in Tender even in the case of 'Nil' commission. The tenderer should indicate the percentage of agency commission to be paid to the Indian agent. The foreign Principal should indicate about the percentage of payment and it should be included in the originally quoted basic price, if any.
- f) **Inspection Clause:** All major equipment will be inspected by a team of IIT Tirupati at Supplier's premises and after clearance in the form of report, the items shall be despatched to IIT Tirupati. Readiness of equipment shall need to be intimated well in advance for our inspection formalities.
- g) The bidder along with technical bid shall submit detailed plan of installation of equipment and site arrangement which include rack layout, power, cooling and electrical infrastructure required at Institute.
- h) **Delivery Schedule:** Please note that delivery is the essence of the contract. In case there is any deviation in the delivery schedule, liquidated damages clause will be levied for the delayed period of supply. Therefore, it should be ensured that all the ordered items should be supplied within 2 months from the date of receipt of Purchase Order on door delivery basis at our Institute as per Purchase order terms with securely and sufficiently packed by following standard packing procedure to withstand transit damages. In case of import supply, the item should be delivered at the cost of supplier to our institution. The installation and commissioning should be completed as specified in our important terms and conditions.
- i) **Extension of time:** If the completion of stores is delayed due to reason of force majeure such as acts of God, acts of public enemy, acts of Government, fires, floods, epidemics, quarantine restriction, strikes etc., the contractor shall give notice within 15 days to Institute in writing of his claim for an extension of time. The Institute on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.
- j) **On-site erection and commissioning:** It is the responsibility of the Contractor to install and commission the equipment or machinery supplied by them within 15 days from the date of receipt of the item at the site of IIT Tirupati and demonstrate the performance of the system to the satisfaction of the users/concerned faculty members/committee in-charge at IIT Tirupati. In case the Contractor fails to carry out the erection as and when called upon to do so within the specified period by the Institute, the Institute shall have the right to get the erection work done through any source of his choice. In such an event, the Contractor shall be liable to bear any additional expenditure that the Institute is liable to incur towards erection.
- k) **Training of End user:** The successful bidder shall provide comprehensive training at IIT Tirupati to IIT personnel on operation, programming, and maintenance at free of cost on all the items installed to the satisfaction of the IIT personnel. The expenses related to travel (to and fro) including local travel, stay, food and per diem and training have to be completely borne by the vendor.
- l) **Liquidated damages:** If the Contractor fails to deliver the material within the time specified in the Contract or any extension thereof, the Institute shall recover from the

Contractor as Liquidated Damages a sum of one-half of one per cent (0.5 per cent) of the Contract Price of the undelivered material for each calendar week of delay. The total liquidated damages shall not exceed ten per cent (10%) of the Contract price of the unit or units so delayed. Stores will be deemed to have been delivered only when all their component parts are also delivered.

- m) **Performance Bank Guarantee:** Performance Bank guarantee for 5% of Purchase order value should be produced in the form of B.G from the nationalised /scheduled Bank valid till the completion of warranty / guarantee period plus sixty days as claim period. Where-ever installation/commissioning is involved, the guarantee/warranty period shall be reckoned from the date of completion of installation/commission. Failure to render contracted service during the warranty/guarantee period by the contractor, the performance bank guarantee will be forfeited. No interest is payable on the performance Bank guarantee amount.
- n) **Guarantee/Warranty:** The Contractor shall guarantee that the material supplied shall comply fully with the specifications laid down, for material, workmanship and performance after acceptance of the material **for a period of three years.** The tenderer should clearly mention in the bid the period of guarantee/warranty offered by him. If any defects are discovered therein or any defects therein found to have developed under proper use arising from faulty stores design or workmanship, the Contractor shall remedy / replace such defective items at his own cost.
- o) **Comprehensive Annual Maintenance contract:** CAMC charges for a period of 2 years after expiry of warranty period should be quoted separately for the equipment wherever applicable which come into force after expiry of warranty/guarantee periods. The quote should contain details about free replacement of spares/accessories/software during the currency of CAMC and number of break down calls shall be attended and duration of time required for attending to emergent calls and details of essential spares which are to be supplied on chargeable basis also need to be mentioned in the quote. IIT Tirupati reserves the right to conclude AMC at appropriate time after expiry of warranty period depending upon the requirement.

The Bidder should clearly categorize the Basic/Standard features as well as optional features of the system in order to have a clear cost comparison. Essential spares if any for maintenance to be quoted separately. The bidder should ensure continued supply of spares throughout the useful life of the equipment.

- p) **Insurance:** IIT Tirupati being a Central autonomous body under Ministry of HRD, Government of India, we will not insure our goods. However, to safe guard the ordered material from probable transit damage while in transportation the contractor may insure the goods at his risk and cost.
- q) **Do not quote the optional items or additional items unless otherwise mentioned in the tender documents / specifications.**

ARBITRATION CLAUSE: Arbitration in the event of any dispute or difference arising under these terms & conditions or any Condition contained in the Purchase Order or in connection with this contract (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Registrar, IIT, Tirupati or of some other person appointed by him and the dispute further processed in terms of the Arbitration & Conciliation Act ,1996. There will be no objection that the arbitrator is a Government Servant that he deal with matter which the Contract relates to or that in the course of his duties as Government Servant has expressed views

on all or any of the matters in dispute or difference .The award of the arbitrator shall be final and binding on the parties of this Contract.

If the arbitrator is the Registrar, IIT, Tirupati

- i.In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in office either to proceed with the reference himself for to appoint another person as arbitrator, or
- ii.In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Registrar, IIT Tirupati to appoint another person as arbitrator.

If the arbitrator is a person appointed by the Registrar, IIT Tirupati – In the event of his denying or neglecting or refusing to act, or resigning or being unable to act, for any reason, shall be lawful for the Registrar, IIT Tirupati to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator subject, as aforesaid , to the Arbitration & Conciliation Act ,1996, and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under the clause. The Arbitrator shall have the power to extend with the consent of the purchaser and the contractor the time for making and publishing the award. The venue of Arbitration shall be the place as the purchaser in his absolute discretion may determine work under the Contract shall, if reasonably possible, continue during Arbitration Proceedings.

All amendments, time extension, clarifications etc., if any will be uploaded in the website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid due date/ time shall be considered on account of delay in receipt of any document by mail.

- r) **Acknowledgement:** It is hereby acknowledged that the tenderer has gone through all the conditions mentioned above and agrees to abide by them.

**SIGNATURE OF TENDERER
ALONG WITH SEAL OF THE
COMPANY WITH DATE**

Annexure A – Compliance Statement of Technical Specifications

S.No.	Item description (specification of Item)	Compliance whether “YES” or “NO”	If No, then specify deviations explicitly
01.			
02.			
03.			

