



KANNUR UNIVERSITY

കണ്ണൂർ സർവകലാശാല

THAVAKKARA, CIVIL STATION P.O.,

KANNUR, KERALA- 670002

Tel : 0497 2715321, 0497 2715468

email: registrar@kannuruniv.ac.in, sopmub@kannuruniv.ac.in

NOTICE INVITING E-TENDER

Tender Document for Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution at Department of IT, Mangattuparamba Campus, Kannur University

The Registrar, Kannur University invites e-tender(s) in **Two Bid System (Two cover)** for the **Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution** at **Department of IT, Mangattuparamba Campus** (under PM USHA Scheme), from **original equipment manufacturers (OEMs) or authorized distributors/dealers** as per the technical specifications and schedule given below. The rate quoted should be inclusive of all taxes, installation charges and other charges. **The Registrar, Kannur University reserves the right to accept or reject the tenders without assigning any reason thereof.** The list of equipment/accessories proposed to be purchased, including its quantity and specifications are furnished in the schedule of items given below. Since this is an e-tender, only those bidders who have enrolled in the **<http://etenders.kerala.gov.in>** portal with their own Digital Signature Certificate (DSC) can participate in the tender. E-Tender document and other details can be obtained from the above e-portal.

For further details, logon to <http://etenders.kerala.gov.in>

Tender Schedule

Name of the work	Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution at Department of IT, Mangattuparamba Campus.
Tender Notice No.	PMU-B/BI/17685/2025
Tender ID	2025_KnrU_806270_1
Last date and time for receipt of Tender	28-10-2025, 04:00 PM
Date and time of opening of Tender	30-10-2025, 11:00 AM



EMD	Rs: 1,50,000/-
Security Deposit	5% of the contract value
Tender Fee	Rs. 25,000 + 4,500 (GST-18%) (Firm should remit GST amount of ₹4,500/ directly to the GST department and upload receipt in the e-Procurement portal)
Place of supply and installation	Department of IT, Mangattuparamba Campus, Kannur University
Period of completion	90 Days From the date of Receipt of Purchase Order

Instruction to Bidders

At any time prior to the deadline for submission of bids, Registrar, Kannur University, Kerala may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Tenderer, modify the Tender document by amendment and will be published as corrigendum in the website. The deadline for submission of bids may also be extended at the discretion of Kannur University, Kerala.

Tendering Process

The tender will be published in the form of e-tender and will be available on the e-tender site of Govt. of Kerala. All the rules and regulations of the e-tendering will be applicable to this tender also. The tender will be invited in the two cover format. i.e. (i) Technical Bid and (ii) Financial Bid. The financial bid of a bidder will be considered if and only if the bidder qualifies in the technical bid evaluation.

Specifications

AI Server Technical Specifications			
Sl.No.	Parameter	Specification	Quantity
1	Form factor	Maximum 2U rack mounted with sliding rails	1
2	Configured CPU	Dual Processors, x86-64 Architecture, 2.8 GHz, 32 core, 96 Threads, 45M Cache, DDR5-5600 or higher Minimum 3.53TF Rpeak performance per processor	2
	Memory Slots	Minimum 32 DDR5 DIMM slots RDIMMS & LR DIMMS supporting speeds of 5600MT/s	1

4	Memory Configured	1024GB DDR4 5600 MT/s RAM scalable to 8 TB RAM (Fully Populated Configuration) or higher, Memory must be populated in 100% balanced configuration and all the memory channels must be filled with same sized DIMMs	16 Nos of 64GB
5	Memory protection	Advanced ECC with multi-bit error protection, Online spare, mirrored memory and fast fault resilience	
6	RAID Controller	Hardware RAID Controller with NVME SSD Drive Support, 8GB NV Cache, with RAID 0, 1, 5, 6,10, 50, 60 and Non- RAID Support. The Raid Controller must support all the 2.5" NVME SSD Slots from Day1	1
7	Disks Requirement	2 Numbers of 960GB NVMe Read Intensive Drives or equivalent in RAID1 3 Numbers of 3.84TB Data Center NVMe Read Intensive U2 Gen4 Drives in RAID5	2x960GB,3X3.84TB
8	Free NVMe Disk Slots	Minimum of 3 number of 2.5" NVMe SSD with HARWARE RAID supported slots should be free	3 free slot
9	PCIe Slots	PCIe 5.0 slots	5
10	GPU Specifications	1. GPU Memory: Minimum 94 GB or above 2. FP64 Tensor Cores: Minimum 60 teraFLOPs, 3. Multi-Instance GPUs: Minimum 7 MIGS @ 12GB each, 4. GPU Memory Bandwidth: Minimum 3.9TB/s 5. Single PCIe dual-slot air-cooled GPU	2
11	GPU Certification	Proposed System must be certified by GPU OEM, The quoted system must be listed in certified servers list of GPU OEM website with quoted GPU. Submit the necessary document along with bid documents.	
12	Ethernet ports	Dual Port 25Gbps SFP28, Dual Port 10Gbps Ethernet.	1
13	Interface Ports	Minimum of 1 VGA/Video Port, 2 x USB 2.0 / USB 3.0, dedicated 1Gbps Management Ports	
14	Certification and Compliance	1. The system's integrated remote management hardware & tool should be minimum Evaluation Assurance Level (EAL) EAL2+ certified. Certificate from certifying agency to be submitted.	
		2. Cryptographically verified trusted booting standards meeting NIST SP 800-147B, NIST SP 800-155, protection standards meeting NIST SP 800-193 standards & secure media sanitization standards	



		meeting NIST SP 800-88	
15	Power Supply & Temperature	Minimum 1600W PSU or above (Titanium) ,Real-time power meter, graphing, thresholds, alerts &Temperature monitoring & graphing	2
16	Alert Notification	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD	
17	Remote Management	1. Software should support dashboard view to quickly scan the managed resources to assess the overall health of the servers. It should provide an at-a-glance visual health summary of the resources user is authorized to view.	
		2. The Systems Management software should provide Role-based access control. Dynamic USB Port management	
		3. Real-time out-of-band hardware performance monitoring & alerting, Predictive failure monitoring.	
		4. Should be able to monitor all system health and systems components (CPU, RAM, HD, FANs, BIOS, Power Supplies, HBA's, NICs)	
		5. Automatically restore hardware configuration and license information during system board replacement and return system to production in minutes using the in-chassis backup with configuration.	
		6. Automated hardware configuration and Operating System deployment to multiple servers.	
		7. HTML5 graphical remote virtual console & virtual media without using Java or ActiveX plugins. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder	
		8. Should have dedicated 1G remote management port and controller with necessary software and licenses for full remote management functionally. Should support IPMI 2.0 compliant configuration, out of band management over Ethernet with SSL and TLS encryption.	
		9. Should have storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized to rollback/patch faulty firmware. Zero-touch repository manager and self-updating	



		firmware system. Support for NFC communication to sync server health to mobile or handheld devices.	
		10. The Server Management Software should be of the same brand as of the server OEM. Agent free monitoring & management; driver updates & configuration; Support for Telemetry Streaming for log analysis.	
18	Security Features	1. Server should detect an invalid, untrusted BIOS image when a boot is attempted and recover to an authenticated, trusted BIOS image through BIOS recovery.	
		2. Server should have the capability to prevent any unauthorized configuration or firmware drift/modification through System Lockdown.	
		3. Silicon-based Hardware Root of Trust	
		4. Signed firmware updates	
		5. Rapid OS recovery & Automatic BIOS recovery	
		6. System erase of user data	
		7. CC-TCG Certification	
		8. Secure Boot support	
		9. Dynamic USB Port Management	
		10. Security feature to ensure servers do not execute compromised firmware code,	
		11. Secure Recovery: recover critical firmware to known good state on detection of compromised firmware.	
19	Pre-failure Alerting Mechanism	The server should be able to alert impending failures on maximum number of components. The components covered under alerting mechanism should at least include Processors, memory, hard disk drives etc.	
20	Server Management	1. Smart Embedded Systems Management should be able to automate task like discovery, deploy, monitor and update.	
		2. Should Support Profile based Configuration and should be able to provide Single console to manage Servers.	
		3. Monitor system ID, status information and system error code	
1	Industry Standard Compliance	1. ACPI, UEFI, PCIe 4.0, FIPS 140-2, SMBIOS,	
		2. Boot Guard, CNSA, Common Criteria EAL4,	
		3. TLS, SSL Certification, Multi-factor authentication etc	



22	MAC Address	The MAC address should be registered in the name of OEM only including the Remote Management Port. MAC address 'OUI' block to be shared with bid document for verification. The same will be shown from live system while technical evaluation via remote.	
23	Required SDK/Library/Constrainers	CUDA Toolkit, cuDNN, TensorRT Inference Engine, cuBLAS, cuSPARSE, NCCL, SDKs (Nemo, BioNemoProf, Clera, Holoscan SDK, DeepStream, RIVA)	
24	Pre-Installed AI Frameworks	Caffe, CNTK, Tensorflow, Torch, Monai, Docker Containers for deploying Deep Learning frameworks with required access license if any	
25	Pre-Installed Deep Learning System	Deep learning GPU training system for training highly accurate DNNs for LLM, image classification, segmentation and object detection tasks required access license if any	
26	AI Benchmarks	Bidder to demonstrate MIPerf Benchmark on quoted dual GPU with minimum of 65% performance during installation and acceptance	
27	Job Queuing System	Bidder to configure all the GPU instances to be accessed via Job Queuing System. Once Jobs are submitted, the reserved resource can be used to for compute in both GPU and non-GPU instances.	
28	Instances	Separate Instance for Training workload and Inference workloads Separate Instances for entry point for users to write, compile and build AI Applications and submit and track the jobs	
29	Operating System	OEM Supported Linux Server Operating System with Container orchestration and Enroot support.	1
30	Warranty	5 Years Onsite (Hardware replacement and software) OEM warranty. Warranty details must reflect in OEM website. Provide service centre details in Kerala	1

Technical Specification of Rack

SL.No	Parameters	Technical Specification
		Smart/Modular compact 'Plug-n-Play' intelligent integrated data centre infrastructure to deploy and effectively manageable IT Infrastructure. Rack,



1	Integrated Infrastructure Solution	Power, Cooling and Monitoring system should be from same make of OEM of Integrated Datacenter solution for seamless solution integration with better service support. Also product technical datasheet and manual should be submitted by OEM. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location
2	Scale and Density of Integrated Data Center	The Integrated Data Centre (1 Rack Solution of 42 U) shall be a self-sufficient data centre with rack-based infrastructure approach and optimized system solution, Power and Cooling system
		Server Rack 1000 Width X 2000 Height X 1200 Depth: 1 No. Best in class IT Rack with containment, High density with 42U as standard, complete with shelf, cable manager & blanking panels with PDU. Each Rack frame should be 42U 19" mounting type with minimum 2000 mm (Height) x 1000 mm (Width) x 1200 mm (Depth) for the Server Racks
		The rack must be designed to meet the safety requirements of the modern data Centre. Both the front and rear door should have a handle with locking options. The rack should be suitable for Cable entry entered via the roof plate and via the gland plate without affecting the climatic conditions inside the rack.
		Technical specifications:
		Basic Structure: Frame Of sturdy frame section construction, consisting of multi folded (minimum 9fold or higher) x folded rolled hollow frame section punched in 25mm DIN pitch pattern. All profile edges are radiused. The corners are welded, with copper coated corner blocks. Removable top & Bottom cover
		with Cable entry provision. Frames should be bayable, scalable and modular.
		High Performance Cooling Area Racks:
		Fitted with Front Glass door & Rear Sheet Steel Double Door with 3 point locking system and ergoform handle with locking.
		Rack Design should support closed loop High performance cooling.
		The door should be inter-changeable at site, at any point of time
		Side panel should be with PU gasket with screw fixing to avoid air leakage.
		Side panel required only at the end of the row, on each side.
		19" angles front and back.



3

Racks &
enclosures with
iPDU

• Top cover with fixed & slidable gland plate for cable entry.
• Bottom cover with multi-piece gland plates for cable entry.
• Base Plinth 1000Wx100Hx1200D or as per the rack enclosure frame
• Stationery shelf 1 No. per racks.
• Vertical cable managers with cable loops.
• Horizontal 1U Cable manager with PVC cable loops - 2nos per rack
• Horizontal Earthing Busbar per cabinet, 20 point for earth connection.
• Captive Hardware pack.
• Blanking panels - 20nos per rack
• All Racks should be certified according to ISO 9001, 14001, 45001. Complying EIA 310, DIN 41494 and IEC 297 standards
• Load bearing capacity: 1400KG at Frame & 1000 KGs. On 19" mounting angles.
• Surface Finish: Nano Ceramic Coated, electro-dipcoat primed 10 to 15 microns and powder coated with textured polyester RAL 7035 to 80 to 120 microns.
Vertical mount metered IPDU for Racks with industrial socket 32A/1P. Smart rack should have 2 Nos. PDU
Technical Specification :
Aggregate Current Monitoring: Monitors the aggregate / Total current flowing through the device
Monitors and Tracks Aggregate power consumption.
Conforms to CLASS I measurement accuracy.
Monitoring and Metering of electric parameters: Voltage (V), Current (I), Energy (kWH) Power (kVA, kVAR), Power factor (cos Φ)
Current Threshold settings with warning LED on front panel and Buzzer alarm.
TFT Color Display
Networking: 10/100 Base Ethernet Port.
Provision to connect Temperature-Humidity Sensor.
Hot Swappable Controller.
Daisy Chaining: One Master PDU can communicate up to 15 nos. of slave PDUs.
Input Voltage : 1Φ, 32 Amps, 230VAC, 50 Hz / 60Hz
Total No. of outlets: 42 - IEC-60320 C13 (36 Nos.) IEC-60320 C19 (06 Nos.)



		Branch Circuit Protection: Two (2) X 16A Hydraulic Magnetic Circuit Breaker.
		Integrates with any DCIM System through SNMP
		Interface and Protocol Support - HTTP, SNMP V1, MODBUS TCP/IP, MODBUS RTU(RS-485), FTP, DHCP, IPV4, Telnet & SMTP
		Operating temperature: 0 – 45°C (Extended up to 65°C)
		Humidity: 0 – 95 % RH non-condensing
4	'U' Usable Space	Minimum 'U' space to be available to mount IT equipment's should be 37U
5	Lights	Rack should have Lights which shall glow Blue under normal circumstances and color shall change to Red in case of any Alarms.
6	Cooling System	Rack based Cooling system should be self-contained Precision Cooling Unit designed for cooling the racks with 24X7 operations in all respect as per ISHRAE/ASHRAE standard with high efficiency, front to back closed loop cooling solution
7	Minimum 10 kW Sensible Cooling System for one rack • Cooling Output Range: 10 kW • maximum Cooling Voltage 230/1/50 V/Ph/Hz • Cooling Operating Range : 50 DegC	Outdoor Type Air-conditioning Unit – 10kW DX Type Close Coupled (in a rack) Air-conditioning system with high CFM & sensible cooling Indoor and Outdoor units. The system shall not require raised floor & shall have complete hot and cold aisle separation. Cooling capacity should support average density per rack – 9kW & should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of inverter rotary type compressor and for the R 410a refrigerant. The internal unit should not be consumed any rack U space.
		The System should include (i) 1 x Heat Exchanger (evaporator) for placing on the inside of the system (ii) 1x External ODU unit works with R 410a refrigerant (iii) 1 x CONTROLLER
		The cooling system should be with separate indoor units (evaporator) and outdoor units (condenser). The compressor should be part of the outdoor unit to eliminate noise and vibration inside the indoor unit. The cooling system should Include an integrated heat exchanger mounted on the inner side of side walls with 2nos of fans. The air routing in the Rack should run horizontal, i.e. the cold air exits in front of the IT components and the warm air drawn in at the rear. The sequence controller should run one cooling unit at a time, and perform a changeover, in case of failure of any of the cooling units. Drain for condensation water (without pump). Power connection for outdoor unit: 230 VAC / single phase / 50Hz.



8	Supply , Installation, Testing & commissioning of high sensible & high CFM close coupled cooling system	The outdoor unit should have inverter type rotary compressors to ensure high energy efficiency. The scope of the bidder includes Installation & commissioning of the High CFM high sensible cooling unit including related works.
9	Refrigerant Gas	Supply of R 410a, refrigerant gas, and charging it, after cleaning the line, compressor oil fill and pre-testing for leakage. Testing the line after charging the gas as per standards and directions Connectivity between cooling unit and outdoor unit: High quality copper pipes shall be used, nitrile foam between each set of outdoor & indoor unit. All units equipped with direct expansion circuit are suitable for R410A refrigerant It shall be laying in high quality powder coated tray. All transmission wiring between indoor to outdoor unit is kept in PVC conduit. Piping installation, testing and commissioning done by product OEM team.
10	Main Electrical Distribution Panel, rack mount	Bidder should size the proper electrical System required for proposed solution. The electrical DB must be rack mountable type with all internal cabling integrated into the same. Adequate precaution and compliances to be taken care for sizing/ratings of cables and switchgear inside Rack. Customer will give you the EB and DG Synchronized Power to the DB Panel. Earthing for the Data Center will be provided by customer. 2nos of UPS Output Distribution Board - Zero U, Incomer Feeder : 63 A, 2Pole, 10kA, MCB. & Outgoing : 1) 30A NEMA SOCKETS WITH PLUGS (3nos) & 2) C-13 SOCKETS (2 nos)
11	Integrated Fire Security & Suppression System	Fire detection and suppression system should be mounted in a way to avoid consumption of any usable U space and should be In- rack built-in feature of solution. It should have smoke detector, fire alarm & fire suppression unit and the fire suppression agent should be NOVEC 1230 Gas or equivalent as per NFPA guidelines. The integrated infrastructure solution should be designed as a complete stand-alone unit with fire alarm, fire detection and fire suppression systems. The NOVEC 1230 system shall be designed and installed as per NFPA Rack based rodent repellent system should be considered for the Smart Racks





12	Remote Monitoring	The central monitoring system should be 1U rack mount and should be able to monitor up to 32 sensors / CAN-Bus connection units. The following devices to be monitored: Temperature/Humidity, Water Leakage, Door Status Door access sensor. It should also monitor & control Automatic Opening of 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, Syslog, LDAP
		Each set of intelligent rack should include IP based basic environmental controls of following features:
		· Temperature/ Humidity Sensor
		· Water Leak Detection system
		· Automatic door opening kit during Emergency condition
		· Access control - Biometric reader for front door. IP based Biometric Access Control system is required.
		· Hooter with signal pillar
		· Email and SMS alert should also be provided
		Technical specifications:
		Temperature application range: 0 °C to 45 °C
		Humidity range: 5% to 95% relative humidity, non-condensing
		Protection category: IP 30 to IEC 60 529
		Max. CAN bus sensors: 32
		CAN bus jacks RJ45: 2
		Network interface (RJ 45): Ethernet to IEEE 802.3 via 10/100 BaseT with PoE
		Protocols: TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP
13	Certifications	a) OEM should be certified ISO9001:2015, ISO14001:2015 & ISO 45001:2018
		b) OEM must certify that the products are RoHS Compliance
14	Installation Testing & Commissioning	Supply, installation, testing and commissioning of complete solution by OEM.

15	Warranty	1 Years comprehensive onsite warranty from the date of commissioning of Supplied Solution with back-to-back OEM support. Bidder should submit the required documents from all the respective OEMs.
16	Minimum eligibility criteria for the OEM	Critical Component's for Integrated Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and monitoring system along with sensors) should be from same & single OEM for seamless Integration & better service supports. The Smart rack OEM should have at least 05 years of experience in executing similar works (Similar works means – "SITC of Integrated Smart Rack Infrastructure of minimum 04 rack configuration") in Central/State/PSU Organizations. Completion Certificate, as a proof of experience, signed by the concerned authorities to be submitted along with the bid. The Smart Rack OEM must have executed minimum 05 Integrated Smart Rack Data Centre projects, with minimum 3 racks configuration in each project, during the last 3 years from the bid submission date in any reputed organization. The completion certificate signed by the concerned authorities to be submitted along with the bid. OEM Service Support for major Equipment's: Smart Rack OEM or Manufacturer should have its own service centre The Smart Rack OEM should have at least 3nos of qualified and experienced DC certified professionals like CDCP/CDCS & 2nos of certified professionals like ATD on their company payroll with minimum 3 years' experience in Data Centre designing and implementation Smart Rack OEM or Manufacturer should be ISO 9001:2015, ISO 14001:2015 , ISO 45001:2018 & ISO 27001:2017 The Project Manager proposed from bidder/OEM must have a minimum 5 years of experience in executing & managing Data centre projects. Smart rack OEM should have its own manufacturing facility in India. Supporting document/undertaking regarding the same to be submitted along with the bid OEM or Manufacturer of the offered goods/ equipment's should be a company registered under the companies Act since last 10 years. Valid company registration certificate should be submitted. OEM and Bidder shall not be blacklisted in any State and Central Government organization, Government PSU and self-declaration shall be submitted on company letter head. Supporting document/undertaking



	regarding the same to be submitted along with the Tender.(Evidence must be submitted)
	Smart rack OEM should have its own manufacturing & testing facility in India for offered capacity of Rack and Cooling units for high availability of the proposed solution.
	OEM has to submit Make in India declaration along with local manufacturing facility. (Evidence must be submitted)
	Bidder must submit copy of GST Registration Certificate

Terms and Conditions

1. The tender should be submitted in two cover system (Technical bid & Financial bid).
2. Bidders shall keep their tendered rate firm for a period of 120 days from the date of opening of the tender.
3. The bidder shall quote their rates in the standard Indian currency in the BOQ provided, indicating the breakup details and the total rate tendered should be inclusive of all taxes, transportation, installation, supply, support charges & other Charges if any.
4. Tender fee and EMD for each item as given below should be remitted online (SBI MOPS) as indicated in the e-tender website. However, 18% GST of the Tender Fee should be remitted to GST Department directly and upload the receipt in the e-procurement portal.

Sl. No	Item	Tender Fee without GST	18% GST	Tender Fee including GST	EMD
1.	Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution at Department of IT, Mangattuparamba Campus	₹ 25,000/-	₹ 4500/-	₹ 29,500/-	₹ 1,50,000/-

5. **All the MSMEs with Udyog Aadhar Registration or any other body specified by the Ministry of Micro, Small and Medium Enterprises working within the state of Kerala will be exempted from the payment of Tender Fee and EMD. Under MSME category, only Manufactures for Goods and Service Providers for Services are eligible for EMD/Tender fee exemptions.**
6. Forfeiture of EMD:
 - (i) If any bidder withdraws from his tender before the expiry of the bid validity period specified or
 - (ii) in case after being successful bidder, he/firm fails to sign the contract, and to furnish the performance security.
7. The bidder should upload along with the tender a preliminary agreement executed and



signed in Kerala Stamp Paper of value of Rs.200/- as per format given as Annexure 3.

8. The successful bidder shall, before signing the agreement and within the period specified in the letter of acceptance of his tender, deposit a sum equivalent to **5% of the value of the contract** by way of Security Deposit or Demand Draft or bank guarantee drawn in favour of the **Finance Officer, Kannur University** payable at SBI Kannur Branch or Kannur Branch of other Nationalized or Scheduled bank, **as performance security** for the satisfactory fulfilment of the contract.
9. All bid/tender documents are to be submitted online only and in the designated cover(s)/envelope(s) on the website. Tenders/bids shall be accepted only through online mode on the website and no manual submission of the same shall be entertained.
10. Profile of Bidder as per Annexure 1 shall be provided.
11. Bidders shall produce copy of the valid GST Registration and PAN card.
12. The OEM (Original Equipment Manufacturer) is required to have a support setup in Kerala and should be able to provide onsite support in Kannur.
13. The supplier should have a track record of supplying similar item that have been offered to Government organizations/PSUs specifically in Kerala .
14. Detailed Bill of Materials for all the required components should be Submitted, Any Additional Materials required for successful completion of the Project must be included and supplied by the Bidder without any additional charges
15. All the damages to the walls, floors, articles, etc. during the execution, shall be repaired and modified/ replaced by the Firm at its own cost.
16. The bids shall be opened online at Kannur University on the date mentioned in Invitation Bid. If the date fixed for opening happens to be a holiday/ due to technical issue, the tenders will be opened on the next working day, at the same time.
17. Tenderers shall invariably specify in their tenders the delivery conditions including the time required for the supply of articles tendered for.
18. The final acceptance of the tenders rests entirely with the University who do not bind themselves to accept the lowest or any tender. But the tenderers on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.
19. The supplier shall guarantee to repair/replace without any extra cost, the items supplied or part thereof, if found defective due to bad designing, workmanship or substandard materials, within the warranty period. The entire expenditure towards replacement/repair in this regard shall be borne by the supplier. The period of warranty for the repaired/replaced item will recommence from the date of replacement/repair.
20. Payment will be made after the receipt and successful Installation, Testing, Commissioning of the System. No advance payment will be made to the Contractor/Supplier.
21. The financial bid of those bidders who qualify the technical evaluation after opening of Technical bid shall only be opened.
22. Dedicated/ toll free Telephone No. for service support, Escalation Matrix for Service support shall be provided.
23. Any attempt on the part of the tenderers or their agents to influence the University/Department in their favour by personal canvassing with the Officers concerned will



disqualify the tenderers.

24. Registrar, Kannur University reserves the right not to process the tender, cancel the contract, supply order, hold the payment and to trade or not to trade the old stores without assigning any reason.
25. The tenderer shall have to pay all stamp duty, lawyers charges and other expenses incidental to the execution of the agreement.
26. The successful bidder has to execute an agreement within 15 days on receipt of the Purchase order. In cases where a successful bidder, after having made partial supplies fails to fulfil the contract in full, all or any of the materials not supplied may at the discretion of the Registrar, be purchased by means of another tender/ quotation or by negotiation or from the next higher bidder who had offered to supply already and the loss, if any caused to the University shall there by together with such sums as may be fixed by the University towards the damage be recovered from the defaulting bidder.
27. The Kannur University reserves the right to cancel the contract of the selected bidder and recover expenditure incurred by the Kannur University if the selected bidder commits a breach of any of the terms and conditions of the bid/contract.
28. Failure to supply and install the items within the specified time period as per the agreement will attract a penalty at the rate as specified in Kerala Stores Purchase Manual/ KPWD Manual.
29. Custom clearance of the consignment including all the stages of custom clearance will be under the purview of the supplier.
30. The provisions of Kerala Stores Purchase Manual/ KPWD Manual Rules are applicable to this tender and further proceedings.
31. No tender received after the specified date and time will be accepted on any account.
32. No representation for enhancement of rates once accepted will be considered.
33. Further Information and inquiries can be obtained from the Director, IT Directorate, Kannur University during working hours of the University. **Phone: 0497 2715468, e mail: directoritcentre@kannuruniv.ac.in**

GST No. of Kannur university : 32AAAGK0152J1ZT

DOCUMENTS TO BE SCANNED AND UPLOADED

1. **Bidder Profile** (as per format mentioned in Annexure 1)
2. **Bid Particulars** (as per format mentioned in Annexure 2)
3. **Preliminary Agreement**: Scanned copy of Preliminary Agreement in Kerala Stamp Paper of Rs.200/- (as per format mentioned in Annexure 3).
4. **Compliance Statement** (as per format mentioned in Annexure 4)
5. **Form of Tender** (as per format mentioned in Annexure 5)
6. **Integrity Pact** (as per format mentioned in Annexure 6)
7. **Completion Period Certificate** (as per format mentioned in Annexure 7)
8. **GST payment receipt**: Copy of GST payment receipt to Kerala GST Department (18% of tender fee). (MSME firms should upload MSME certificate/ UDYAM registration certificates).
9. **Escalation Matrix**: The OEM escalation matrix and the bidder escalation matrix must include



details for at least 3 service engineers, along with their email IDs and contact numbers.(The OEM is required to have a support setup in Kerala and should able to provide onsite support in Kannur).

10. **OEM Turnover:** The OEM's turnover should be above 2000 Crore.(Evidence must be submitted)
11. **OEM Authorization:** Valid authorization certificate from OEM (MAF) (in case of resellers)
12. **Warranty Declaration:** A warranty declaration certificate from the OEM for this bid is required.
13. **Documentation Requirements:** Scanned copy of valid registration certificate (GST), PAN Card and bank details
14. **Quality Certifications:** The ISO 9001 certificate of the bidder, along with the ISO 9001:2015 certificates of the OEM, must be uploaded at the time of bidding.
15. **Make in India Declaration:** OEM has to submit Make in India declaration along with local manufacturing facility. (Evidence must be submitted)
16. **Registered Office Requirement:** Bidder must have a registered office in Kerala for last 3 years. Proof of this must be submitted.
17. **Purchase Order Submission:** Bidder must have completed at least 1 similar deployment in any of the Government or PSU sector in Kerala. Relevant PO or other document to be shared.
18. **Non-Blacklist Declaration:** OEM and Bidder shall not be blacklisted in any State and Central Government organization, Government PSU and self-declaration shall be submitted on company letter head.
19. **Bill of Materials:**Detailed Bill of Materials (BOM) for all the required components should be Submitted

Prof.(Dr.) Wilson V A
Development Officer (Registrar in-charge)



ANNEXURE 1**BIDDER PROFILE**

Sl.No.	Particulars	
Details of bidder (Firm/Company)		
1	Name	
2	Address	
3	Telephone & Mobile Number	
4	Email & website	
Details of Authorized Person		
5	Name	
6	Address	
7	Telephone & Email	
Information about the company		
8	Status of Company (Public Ltd. / Pvt. Ltd)	
9	Details of Registration of Firm (Provide Ref.)	
10	Number of Professionals	
11	Location and address of offices (in India & overseas)	
12	Service Tax Registration Number	
13	Income Tax Registration Number(PAN)	
14	GST Registration Number	

Signature of the Bidder

ANNEXURE 2
TECHNICAL BID (BID PARTICULARS)

1. Tender Number :-----
2. Name of the Bidder :-----
3. Full Address of the Bidder :-----

4. Name of the actual signatory of the
product(s) offered :-----
5. Bidder's proposal number and date :-----
- 6 . Name & Address of the officer to
whom all references shall be made
regarding the Tender :-----
- Telephone :-----
- Mobile :-----
- E-mail :-----

Bidder Signature Name -----

Designation -----

Company -----

Date -----



ANNEXURE - 3

PRELIMINARY AGREEMENT

Articles of agreement executed on this the day of
..... between the Registrar, Kannur University (hereinafter referred
to as “the University”) of the one part and Shri.....
..... (H.E. name and address of the tenderer)
(hereinafter referred to as “the bounden”) of the other part.

WHEREAS in response to the Notification No..... dated the
bounden has submitted to the University a tender for the
specification therein subject to the terms and conditions contained in the said tender;

WHEREAS the bounden has also deposited with the University a sum of Rs.....
`..... as earnest money for execution of an agreement undertaking
the due fulfillment of the contract in case his tender is accepted by the University

NOW THESE PRESENTS WITNESS and it is hereby mutually agreed as follows:

1. In case the tender submitted by the bounden is accepted by the University and the contract for is awarded to the bounden, the bounden shall withindays of acceptance of his tender execute an agreement with the University incorporating all the terms and conditions under which the University accepts his tender.
2. In case the bounden fails to execute the agreement as aforesaid incorporating the terms and conditions governing the contract, the University shall have power and authority to recover from the bounden any loss or damage caused to the University by such breach as may be determined by the University by appropriating the earnest money deposited by the bounden if the earnest money is found to be inadequate the deficit amount may be recovered from the bounden his properties movable and immovable in the manner hereinafter contained.
.
3. All sums found due to the University under or by virtue of this agreement shall be recoverable from the bounden and his properties movable and immovable under the provisions of the Revenue Recovery Act for the time being in force as though such sums are arrears of land revenue and in such other manner as the University may deem fit.



In witness where of Shri..... (name and designation) for and on behalf of the University and Shri.

..... Bounden have hereunto set their hands the day and year shown against their respective signatures.

Signed by Shri. (date)

In the presence of witnesses:

1.
2.

Signed by Shri. (date)

In the presence of witnesses:

1.
2.



ANNEXURE – 4

COMPLIANCE STATEMENT

AI Server Technical Specifications			
Sl. No.	Parameter	Specification	Compliance (Yes/No)
1	Form factor	Maximum 2U rack mounted with sliding rails	
2	Configured CPU	Dual Processors, x86-64 Architecture, 2.8 GHz, 32 core, 96 Threads, 45M Cache, DDR5-5600 or higher Minimum 3.53TF Rpeak performance per processor	
3	Memory Slots	Minimum 32 DDR5 DIMM slots RDIMMS & LR DIMMS supporting speeds of 5600MT/s	
4	Memory Configured	1024GB DDR4 5600 MT/s RAM scalable to 8 TB RAM (Fully Populated Configuration) or higher, Memory must be populated in 100% balanced configuration and all the memory channels must be filled with same sized DIMMs	
5	Memory protection	Advanced ECC with multi-bit error protection, Online spare, mirrored memory and fast fault resilience	
6	RAID Controller	Hardware RAID Controller with NVME SSD Drive Support, 8GB NV Cache, with RAID 0, 1, 5, 6,10, 50, 60 and Non-RAID Support. The Raid Controller must support all the 2.5" NVME SSD Slots from Day1	
7	Disks Requirement	2 Numbers of 960GB NVMe Read Intensive Drives or equivalent in RAID1 3 Numbers of 3.84TB Data Center NVMe Read Intensive U2 Gen4 Drives in RAID5	
8	Free NVMe Disk Slots	Minimum of 3 number of 2.5" NVMe SSD with HARWARE RAID supported slots should be free	
9	PCIe Slots	PCIe 5.0 slots	
10	GPU Specifications	1. GPU Memory: Minimum 94 GB or above 2. FP64 Tensor Cores: Minimum 60 teraFLOPs, 3. Multi-Instance GPUs: Minimum 7 MIGS @ 12GB each, 4. GPU Memory Bandwidth: Minimum 3.9TB/s 5. Single PCIe dual-slot air-cooled GPU	
11	GPU Certification	Proposed System must be certified by GPU OEM, The quoted system must be listed in certified servers list of GPU OEM website with quoted GPU. Submit the necessary document along with bid documents.	
12	Ethernet ports	Dual Port 25Gbps SFP28, Dual Port 10Gbps Ethernet.	
	Interface Ports	Minimum of 1 VGA/Video Port, 2 x USB 2.0 / USB 3.0, dedicated 1Gbps Management Ports	



14	Certification and Compliance	1. The system's integrated remote management hardware & tool should be minimum Evaluation Assurance Level (EAL) EAL2+ certified. Certificate from certifying agency to be submitted.	
		2. Cryptographically verified trusted booting standards meeting NIST SP 800-147B, NIST SP 800-155, protection standards meeting NIST SP 800-193 standards & secure media sanitization standards meeting NIST SP 800-88	
15	Power Supply & Temperature	Minimum 1600W PSU or above (Titanium) ,Real-time power meter, graphing, thresholds, alerts & Temperature monitoring & graphing	
16	Alert Notification	Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD	
17	Remote Management	1. Software should support dashboard view to quickly scan the managed resources to assess the overall health of the servers. It should provide an at-a-glance visual health summary of the resources user is authorized to view.	
		2. The Systems Management software should provide Role-based access control. Dynamic USB Port management	
		3. Real-time out-of-band hardware performance monitoring & alerting, Predictive failure monitoring.	
		4. Should be able to monitor all system health and systems components (CPU, RAM, HD, FANs, BIOS, Power Supplies, HBA's, NICs)	
		5. Automatically restore hardware configuration and license information during system board replacement and return system to production in minutes using the in-chassis backup with configuration.	
		6. Automated hardware configuration and Operating System deployment to multiple servers.	
		7. HTML5 graphical remote virtual console & virtual media without using Java or ActiveX plugins. It should be capable of offering upgrade of software and patches from a remote client using Media/image/folder	
		8. Should have dedicated 1G remote management port and controller with necessary software and licenses for full remote management functionally. Should support IPMI 2.0 compliant configuration, out of band management over Ethernet with SSL and TLS encryption.	



		9. Should have storage space earmarked to be used as a repository for firmware, drivers and software components. The components can be organized to rollback/patch faulty firmware. Zero-touch repository manager and self-updating firmware system. Support for NFC communication to sync server health to mobile or handheld devices.	
		10. The Server Management Software should be of the same brand as of the server OEM. Agent free monitoring & management; driver updates & configuration; Support for Telemetry Streaming for log analysis.	
18	Security Features	1. Server should detect an invalid, untrusted BIOS image when a boot is attempted and recover to an authenticated, trusted BIOS image through BIOS recovery.	
		2. Server should have the capability to prevent any unauthorized configuration or firmware drift/modification through System Lockdown.	
		3. Silicon-based Hardware Root of Trust	
		4. Signed firmware updates	
		5. Rapid OS recovery & Automatic BIOS recovery	
		6. System erase of user data	
		7. CC-TCG Certification	
		8. Secure Boot support	
		9. Dynamic USB Port Management	
		10. Security feature to ensure servers do not execute compromised firmware code,	
		11. Secure Recovery: recover critical firmware to known good state on detection of compromised firmware.	
19	Pre-failure Alerting Mechanism	The server should be able to alert impending failures on maximum number of components. The components covered under alerting mechanism should at least include Processors, memory, hard disk drives etc.	
20	Server Management	1. Smart Embedded Systems Management should be able to automate task like discovery, deploy, monitor and update.	
		2. Should Support Profile based Configuration and should be able to provide Single console to manage Servers.	
		3. Monitor system ID, status information and system error code	
21	Industry Standard Compliance	1. ACPI, UEFI, PCIe 4.0, FIPS 140-2, SMBIOS,	
		2. Boot Guard, CNSA, Common Criteria EAL4,	
		3. TLS, SSL Certification, Multi-factor authentication etc	



22	MAC Address	The MAC address should be registered in the name of OEM only including the Remote Management Port. MAC address 'OUI' block to be shared with bid document for verification. The same will be shown from live system while technical evaluation via remote.	
23	Required SDK/Library/Constrainers	CUDA Toolkit, cuDNN, TensorRT Inference Engine, cuBLAS, cuSPARSE, NCCL, SDKs (Nemo, BioNemoProf, Clera, Holoscan SDK, DeepStream, RIVA)	
24	Pre-Installed AI Frameworks	Caffe, CNTK, Tensorflow, Torch, Monai, Docker Containers for deploying Deep Learning frameworks with required access license if any	
25	Pre-Installed Deep Learning System	Deep learning GPU training system for training highly accurate DNNs for LLM, image classification, segmentation and object detection tasks required access license if any	
26	AI Benchmarks	Bidder to demonstrate MIPerf Benchmark on quoted dual GPU with minimum of 65% performance during installation and acceptance	
27	Job Queuing System	Bidder to configure all the GPU instances to be accessed via Job Queuing System. Once Jobs are submitted, the reserved resource can be used to for compute in both GPU and non-GPU instances.	
28	Instances	Separate Instance for Training workload and Inference workloads Separate Instances for entry point for users to write, compile and build AI Applications and submit and track the jobs	
29	Operating System	OEM Supported Linux Server Operating System with Container orchestration and Enroot support.	
30	Warranty	5 Years Onsite (Hardware replacement and software) OEM warranty. Warranty details must reflect in OEM website. Provide service centre details in Kerala	
31	Bidder		
	Pre Q	Bidder must have completed atleast 1 similar deployment in any of the Governemnt or PSU sector in Kerala. Relevant PO or other document to be shared	



<u>Technical Specification of Rack</u>			
SL.No	Parameters	Specification	Compliance (Yes/No)
1	Integrated Infrastructure Solution	Smart/Modular compact 'Plug-n-Play' intelligent integrated data centre infrastructure to deploy and effectively manageable IT Infrastructure. Rack, Power, Cooling and Monitoring system should be from same make of OEM of Integrated Datacenter solution for seamless solution integration with better service support. Also product technical datasheet and manual should be submitted by OEM. All the components of the infrastructure should be such that it can be easily dismantled and relocated to different location	
2	Scale and Density of Integrated Data Center	The Integrated Data Centre (1 Rack Solution of 42 U) shall be a self-sufficient data centre with rack-based infrastructure approach and optimized system solution, Power and Cooling system	
3	Racks & enclosures with iPDU	Server Rack 1000 Width X 2000 Height X 1200 Depth: 1 No. Best in class IT Rack with containment, High density with 42U as standard, complete with shelf, cable manager & blanking panels with PDU. Each Rack frame should be 42U 19" mounting type with minimum 2000 mm (Height) x 1000 mm (Width) x 1200 mm (Depth) for the Server Racks	
		The rack must be designed to meet the safety requirements of the modern data Centre. Both the front and rear door should have a handle with locking options. The rack should be suitable for Cable entry entered via the roof plate and via the gland plate without affecting the climatic conditions inside the rack.	
		Technical specifications:	
		Basic Structure: Frame Of sturdy frame section construction, consisting of multi folded (minimum 9fold or higher) x folded rolled hollow frame section punched in 25mm DIN pitch pattern. All profile edges are radiused. The corners are welded, with copper coated corner blocks. Removable top & Bottom cover with Cable entry provision. Frames should be bayable, scalable and modular.	
		High Performance Cooling Area Racks:	
		Fitted with Front Glass door & Rear Sheet Steel Double Door with 3 point locking system and ergoform handle with locking.	
		Rack Design should support closed loop High performance cooling.	
		The door should be inter-changeable at site, at any point of time	
		Side panel should be with PU gasket with screw fixing to avoid air leakage.	
		Side panel required only at the end of the row, on each side.	



• 19" angles front and back.	
• Top cover with fixed & slidable gland plate for cable entry.	
• Bottom cover with multi-piece gland plates for cable entry.	
• Base Plinth 1000Wx100Hx1200D or as per the rack enclosure frame	
• Stationery shelf 1 No. per racks.	
• Vertical cable managers with cable loops.	
• Horizontal 1U Cable manager with PVC cable loops - 2nos per rack	
• Horizontal Earthing Busbar per cabinet, 20 point for earth connection.	
• Captive Hardware pack.	
• Blanking panels - 20nos per rack	
• All Racks should be certified according to ISO 9001, 14001, 45001. Complying EIA 310, DIN 41494 and IEC 297 standards	
• Load bearing capacity: 1400KG at Frame & 1000 KGs. On 19" mounting angles.	
• Surface Finish: Nano Ceramic Coated, electro-dipcoat primed 10 to 15 microns and powder coated with textured polyester RAL 7035 to 80 to 120 microns.	
Vertical mount metered IPDU for Racks with industrial socket 32A/1P. Smart rack should have 2 Nos. PDU	
Technical Specification :	
Aggregate Current Monitoring: Monitors the aggregate / Total current flowing through the device	
Monitors and Tracks Aggregate power consumption.	
Conforms to CLASS I measurement accuracy.	
Monitoring and Metering of electric parameters: Voltage (V), Current (I), Energy (kWH) Power (kVA, kVAR), Power factor (cos Φ)	
Current Threshold settings with warning LED on front panel and Buzzer alarm.	
TFT Color Display	
Networking: 10/100 Base Ethernet Port.	
Provision to connect Temperature-Humidity Sensor.	
Hot Swappable Controller.	
Daisy Chaining: One Master PDU can communicate up to 15 nos. of slave PDUs.	
Input Voltage : 1Φ, 32 Amps, 230VAC, 50 Hz / 60Hz	
Total No. of outlets: 42 - IEC-60320 C13 (36 Nos.) IEC-60320 C19 (06 Nos.)	
Branch Circuit Protection: Two (2) X 16A Hydraulic Magnetic Circuit Breaker.	
Integrates with any DCIM System through SNMP	



		Interface and Protocol Support - HTTP, SNMP V1, MODBUS TCP/IP, MODBUS RTU(RS-485), FTP, DHCP, IPV4, Telnet & SMTP	
		Operating temperature: 0 – 45°C (Extended up to 65°C)	
		Humidity: 0 – 95 % RH non-condensing	
4	'U' Usable Space	Minimum 'U' space to be available to mount IT equipment's should be 37U	
5	Lights	Rack should have Lights which shall glow Blue under normal circumstances and color shall change to Red in case of any Alarms.	
6	Cooling System	Rack based Cooling system should be self-contained Precision Cooling Unit designed for cooling the racks with 24X7 operations in all respect as per ISHRAE/ASHRAE standard with high efficiency, front to back closed loop cooling solution	
7	Minimum 10 kW Sensible Cooling System for one rack • Cooling Output Range: 10 kW • maximum Cooling Voltage 230/1/50 V/Ph/Hz • Cooling Operating Range : 50 DegC	Outdoor Type Air-conditioning Unit – 10kW DX Type Close Coupled (in a rack) Air-conditioning system with high CFM & sensible cooling Indoor and Outdoor units. The system shall not require raised floor & shall have complete hot and cold aisle separation. Cooling capacity should support average density per rack – 9kW & should ensure an energy-efficient dissipation of heat. The external unit (condenser) should be designed on the basis of inverter rotary type compressor and for the R 410a refrigerant. The internal unit should not be consumed any rack U space.	
		The System should include (i) 1 x Heat Exchanger (evaporator) for placing on the inside of the system (ii) 1x External ODU unit works with R 410a refrigerant (iii) 1 x CONTROLLER	
		The cooling system should be with separate indoor units (evaporator) and outdoor units (condenser). The compressor should be part of the outdoor unit to eliminate noise and vibration inside the indoor unit. The cooling system should Include an integrated heat exchanger mounted on the inner side of side walls with 2nos of fans. The air routing in the Rack should run horizontal, i.e. the cold air exits in front of the IT components and the warm air drawn in at the rear. The sequence controller should run one cooling unit at a time, and perform a changeover, in case of failure of any of the cooling units. Drain for condensation water (without pump). Power connection for outdoor unit: 230 VAC / single phase / 50Hz.	
8	Supply , Installation, Testing & commissioning of high sensible & high CFM close coupled cooling system	The outdoor unit should have inverter type rotary compressors to ensure high energy efficiency. The scope of the bidder includes Installation & commissioning of the High CFM high sensible cooling unit including related works.	



9	Refrigerant Gas	Supply of R 410a, refrigerant gas, and charging it, after cleaning the line, compressor oil fill and pre-testing for leakage. Testing the line after charging the gas as per standards and directions	
		Connectivity between cooling unit and outdoor unit: High quality copper pipes shall be used, nitrile foam between each set of outdoor & indoor unit. All units equipped with direct expansion circuit are suitable for R410A refrigerant It shall be laying in high quality powder coated tray. All transmission wiring between indoor to outdoor unit is kept in PVC conduit. Piping installation, testing and commissioning done by product OEM team.	
10	Main Electrical Distribution Panel, rack mount	Bidder should size the proper electrical System required for proposed solution. The electrical DB must be rack mountable type with all internal cabling integrated into the same. Adequate precaution and compliances to be taken care for sizing/ratings of cables and switchgear inside Rack. Customer will give you the EB and DG Synchronized Power to the DB Panel. Earthing for the Data Center will be provided by customer. 2nos of UPS Output Distribution Board - Zero U, Incomer Feeder : 63 A, 2Pole, 10kA, MCB. & Outgoing : 1) 30A NEMA SOCKETS WITH PLUGS (3nos) & 2) C-13 SOCKETS (2 nos)	
11	Integrated Fire Security & Suppression System	Fire detection and suppression system should be mounted in a way to avoid consumption of any usable U space and should be In- rack built-in feature of solution. It should have smoke detector, fire alarm & fire suppression unit and the fire suppression agent should be NOVEC 1230 Gas or equivalent as per NFPA guidelines. The integrated infrastructure solution should be designed as a complete stand-alone unit with fire alarm, fire detection and fire suppression systems. The NOVEC 1230 system shall be designed and installed as per NFPA Rack based rodent repellent system should be considered for the Smart Racks	
12	Remote Monitoring	The central monitoring system should be 1U rack mount and should be able to monitor up to 32 sensors / CAN-Bus connection units. The following devices to be monitored: Temperature/Humidity, Water Leakage, Door Status Door access sensor. It should also monitor & control Automatic Opening of 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, Syslog, LDAP	



		Each set of intelligent rack should include IP based basic environmental controls of following features:	
		· Temperature/ Humidity Sensor	
		· Water Leak Detection system	
		· Automatic door opening kit during Emergency condition	
		· Access control - Biometric reader for front door. IP based Biometric Access Control system is required.	
		· Hooter with signal pillar	
		· Email and SMS alert should also be provided	
		Technical specifications:	
		Temperature application range: 0 °C to 45 °C	
		Humidity range: 5% to 95% relative humidity, non-condensing	
		Protection category: IP 30 to IEC 60 529	
		Max. CAN bus sensors: 32	
		CAN bus jacks RJ45: 2	
		Network interface (RJ 45): Ethernet to IEEE 802.3 via 10/100 BaseT with PoE	
		Protocols: TCP/IPv4, TCP/IPv6, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP, SFTP, HTTP, HTTPS, NTP, DHCP, DNS, SMTP, Syslog, LDAP	
13	Certifications	a) OEM should be certified ISO9001:2015, ISO14001:2015 & ISO 45001:2018	
		b) OEM must certify that the products are RoHS Compliance	
14	Installation Testing & Commissioning	Supply, installation, testing and commissioning of complete solution by OEM.	
15	Warranty	1 Years comprehensive onsite warranty from the date of commissioning of Supplied Solution with back-to-back OEM support. Bidder should submit the required documents from all the respective OEMs.	
16	Minimum eligibility criteria for the OEM	Critical Component's for Integrated Smart Racks Data Centre Solution (Rack, Cooling, intelligent rack PDU and monitoring system along with sensors) should be from same & single OEM for seamless Integration & better service supports.	
		The Smart rack OEM should have at least 05 years of experience in executing similar works (Similar works means – "SITC of Integrated Smart Rack Infrastructure of minimum 04 rack configuration") in Central/State/PSU Organizations. Completion Certificate, as a proof of experience, signed by the concerned authorities to be submitted along with the bid.	
		The Smart Rack OEM must have executed minimum 05 Integrated Smart Rack Data Centre projects, with minimum 3 racks configuration in each project, during the last 3 years from the bid submission date in any reputed organization. The completion certificate signed by the concerned authorities to be submitted along with the bid.	
		OEM Service Support for major Equipment's: Smart Rack OEM or Manufacturer should have its own service centre	



	The Smart Rack OEM should have at least 3nos of qualified and experienced DC certified professionals like CDCP/CDCS & 2nos of certified professionals like ATD on their company payroll with minimum 3 years' experience in Data Centre designing and implementation	
	Smart Rack OEM or Manufacturer should be ISO 9001:2015, ISO 14001:2015 , ISO 45001:2018 & ISO 27001:2017	
	The Project Manager proposed from bidder/OEM must have a minimum 5 years of experience in executing & managing Data centre projects.	
	Smart rack OEM should have its own manufacturing facility in India. Supporting document/undertaking regarding the same to be submitted along with the bid	
	OEM or Manufacturer of the offered goods/ equipment's should be a company registered under the companies Act since last 10 years. Valid company registration certificate should be submitted.	
	OEM and Bidder shall not be blacklisted in any State and Central Government organization, Government PSU and self-declaration shall be submitted on company letter head. Supporting document/undertaking regarding the same to be submitted along with the Tender.(Evidence must be submitted)	
	Smart rack OEM should have its own manufacturing & testing facility in India for offered capacity of Rack and Cooling units for high availability of the proposed solution.	
	OEM has to submit Make in India declaration along with local manufacturing facility. (Evidence must be submitted)	
	Bidder must submit copy of GST Registration Certificate	



ANNEXURE – 5

FORM OF TENDER

Name of Work: Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution at Department of IT, Mangattuparamba Campus of Kannur University under PM-USHA Scheme.

From,

.....
.....
.....

To,

The Registrar,
Kannur University,
Thavakkara, Kannur.

Sir,

I/We do hereby tender to execute the works enumerated in the Schedule accompanying in accordance the terms in your tender Notification.....date.....and specifications and conditions of contract in the bidding document.

In consideration I/We being invited to tender, I/We agree to keep the tender open for acceptance 120 days from the date of submission thereof and not to make any modifications in its terms and conditions which are not acceptable.

I/We agree that the tender inviting authority shall, without prejudice to any other right or remedy be at liberty to forfeit the earnest money/ Bid security absolutely and also recover from me/us the entire loss that may be caused to the Kannur University by the retender or rearrangement of the work or otherwise under the provision of the Revenue Recovery Act or otherwise.

Signature :

Full Name & Address of Bidder :



ANNEXURE - 6

Integrity Pact

CERTIFICATE

I/We.....undertake that the tender submitted by us is downloaded from the website www.etenders.kerala.gov.in and any deviation, of detected, at any stage, would entitle the Employer to reject our bidding/offer without assigning any reason or recourse to any penal action and would be legally binding on us.

Signature (of tenderer)

Seal



ANNEXURE – 7

COMPLETION PERIOD

(To be submitted in the letter pad of the firm indicating full name and address, telephone no. & E-mail etc.)

Supply, Installation, Testing, and Commissioning of AI-Powered High-Performance Computing and Smart Rack Solution at Department of IT, Mangattuparamba Campus of Kannur University under PM-USHA Scheme shall be completed within a period of **90 days** from the date of receipt of Purchase Order.

SIGNATURE OF THE BIDDER WITH SEAL

