



**POST GRADUATE DEPARTMENT OF PHYSICS  
UNIVERSITY OF KASHMIR, SRINAGAR – 190 006**

**(UGC Sponsored Special Assistance Programme SAP)**

**Tender Notice**

Sealed tenders affixed with revenue stamp worth Rs.8/- along with EMD@ 2% of rate quotations pledged to **Coordinator**, UGC sponsored Special Assistance Programme (SAP), Department of Physics, University of Kashmir are invited for the supply of equipments/items as per the below given specifications. The supply is to be made F.O.R. Department of Physics, University of Kashmir, Srinagar. The TIN No. and up to date VAT clearance certificate must be attached with the tender documents. The last date for submission of tenders either by hand or by post is **30-06-2017**.

S.No	Equipment	Specifications
1.	<b>HIGH PERFORMANCE COMPUTING CLUSTER:</b>  (A) Master/Storage/Login Node ( Quantity: one)	Processor : 2 × Xeon E5-2650v4 or newer with at-least 12-cores @ 2.2GHz  Memory : 256GB DDR4-2400 with ECC ; Must have free memory slots to upgrade to 512GB by adding memory modules  RAID : Support for Hardware RAID6, with 2GB flash backed cache  Disks : 1×240GB MLC SATA SSDs as RAID1 , 10 × 4TB, 7200RPM SATA HDDs as RAID6. All disks must be hot-pluggable and enterprise/datacentergrade and connected to RAID controller  Optical Disk : DVDROM drive (internal only)  NIC : 4 ×10G (2 x RJ45 & 2 x SFP+)  Management : Dedicated management port with KVM over LAN support enabled.  Form Factor : Rack-mountable with rail-kit 4U or lower  Power Supplies : hot-pluggable and redundant, 80PLUS Gold or better  Warranty : 3 years  Other : In case the solution consists of more than one enclosure, both the enclosures combined must not exceed 4U and power supplies of both must meet the specifications. The link between the two enclosures must be at-least 12Gbps .

	<p><b>(B) Compute Node(s)</b> (Quantity: four)</p>	<p>Processor : 2 x Xeon E5-2683v4 or newer with at-least 16-cores @ 2.1GHz</p> <p>Memory : 256GB DDR4-2400 with ECC</p> <p>Disks : 1 x 1TB, 7200RPM SATA, at-least one free HDD bay</p> <p>All disks must be hot-pluggable and enterprise/datacenter grade</p> <p>NIC : 2 x 10G (2 x SFP+)</p> <p>Management : Dedicated management port with KVM over LAN support enabled</p> <p>Form Factor : Rack-mountable with rail-kit, 1U</p> <p>Power Supplies : hot-pluggable and redundant, 80PLUS Gold or better</p> <p>Warranty : 3 years</p> <p>Other : Multi-node solutions (more than one node in single enclosure) not to be quoted.</p>
	<p><b>(C) Ethernet Switch</b> (Quantity : one)</p>	<p>Ports : At-least 12 x 10G ports</p> <p>Form Factor : Rack-mountable, 1U</p> <p>Power Supplies : hot-pluggable and redundant</p> <p>Warranty : 3 years</p> <p>Other : Please include suitable cables required to connect the equipment quoted in this tender.</p>
	<p><b>(D) Rack</b></p>	<p>Height : 32U/42U</p> <p>Width/Depth : As suitable for equipment quoted</p> <p>PDU's : with suitable PDU's to power all equipment quoted. PDU(s) must have a MCB for protection</p> <p>Other : Must include fan tray, shelf for keeping monitor, hardware and other necessary accessories for mounting all equipment quoted.</p>
	<p><b>(E) Console</b></p>	<p>17" TFT with built in keyboard &amp; touchpad in a 1U single rail slide away housing</p>

	<p><b>(F) UPS</b></p> <p><b>(G) Software and Installation</b></p> <p><b>(H) Eligibility</b></p>	<p>Type : Double Conversion Online, Sinewave</p> <p>Capacity : 6 kVA/5.4kW</p> <p>Batteries : 16 x 12V, 42AH SMF batteries</p> <p>Warranty : 2 years (UPS &amp; Batteries)</p> <p>Other : Must include rack for batteries and all required interlink cables.</p> <p>All the equipment has to be installed at customer site. All the systems to be cabled and configured as a “High Performance Computing Cluster” using CentOS Linux with FOSS compilers/libraries/scheduler and other software.</p> <p>Please also quote separately for “Intel® Parallel Studio XE Cluster Edition for Linux with 3 years of updates”.</p> <ul style="list-style-type: none"> <li>- The bidder must have ISO9001 &amp; ISO14001 certifications</li> <li>- The bidder must have supplied and installed at-least 3 “High Performance Computing Clusters” in the last 3 years. Please attach PO copies for the same.</li> <li>- The bidder must submit Manufacturer’s authorization specific to this tender.</li> </ul>
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**No. F(Tender-UGC-SAP)/PHY/KU/2017**

**Dated: 8-06-2017**

**Dr. Gowher Bashir**  
**Coordinator, UGC-SAP**

**Prof. Manzoor Ahmad Malik**

**Head of the Department**