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01.03.2021

Department of Applied Mechanics

Corrigendum-2

Tender Reference no: AM/2021/IOE/COE/175/COMCLUSTER

Name of the Item: 10 node High Performance Computing Cluster

Corrigendum details: Changes in Technical specification and Extension of bid submission date.

Changes in Technical specification and Extension of bid submission date:

The due date for the submission of bids has been extended to 11/03/2021 @ 3 PM & the technical bid opening is 11/03/2021 @ 4 PM.

S.NO	PREVIOUS SPECIFICATION	REVISED SPECIFICATION
1	Manufacture Eligibility: Quoted OEM should have a minimum of 10 HPC Installation in Top500 list from top500.org (necessary proof of document to be enclosed with tender).	Manufacture Eligibility: Quoted OEM should have a minimum of 2 HPC Installation in Top500 list from top500.org (necessary proof of document to be enclosed with tender).
2	Annexure - V Page no: 2 Master Node <ul style="list-style-type: none"> ● Processors - Intel Xeon Gold 5XXX series or above At least 192 GB DDR4 RAM for main memory in a balanced configuration per node with 2666 MHz or more. ● Two processors per node 	Annexure - V Page no: 2 Master No de <ul style="list-style-type: none"> ● Processors - Intel Xeon Gold 5XXX series or above At least 192 GB DDR4 RAM for main memory in a balanced configuration per node with 2666 MHz or more. ● Two processors per node ● At least 1 TB of space over all

	<ul style="list-style-type: none"> • At least 1 TB 15K RPM SAS Hard disk per node Provisions for future expansion of the cluster to • double the capacity^[SEP]Rack mountable with suitable mounting kit • Next business day support 	<p>per node with 7.2K or 10K RPM SAS Hard disks</p> <ul style="list-style-type: none"> • Provisions for future expansion of the cluster to double the capacity^[SEP] • Rack mountable with suitable mounting kit • Next business day support
3	<p>Annexure - V Page no: 2 CPU-only compute Nodes</p> <ul style="list-style-type: none"> • At Most 7 number of CPU only compute nodes^[SEP] • Processors - Intel Xeon Gold 5XXX series or above^[SEP] • Clock at least 32 instructions per core per cycle^[SEP] • At least 18 cores per socket with 2.4GHz or more^[SEP]base processor frequency^[SEP] • At least 192 GB DDR4 RAM for main memory^[SEP]in a balanced configuration per node with 2666 MHz or more. • Two processors per node^[SEP] • At least 2 TB 15K RPM SAS Hard disk per node^[SEP] • One free PCI-e slot for future expansion^[SEP] • Rack mountable with suitable mounting kit^[SEP] • Redundant power supplies for all nodes^[SEP] • Next business day support^[SEP] 	<p>Annexure - V Page no: 2 CPU-only compute Nodes</p> <ul style="list-style-type: none"> • At Most 7 number of CPU only compute nodes^[SEP] • Processors - Intel Xeon Gold 5XXX series or above^[SEP] • At least 18 cores per socket with 2.4GHz or more^[SEP]base processor frequency^[SEP] • At least 192 GB DDR4 RAM for main memory^[SEP]in a balanced configuration per node with 2666 MHz or more. • Two processors per node^[SEP] • At least 2 TB of space over all per node with 7.2K or 10K RPM SAS Hard disks^[SEP] • One free PCI-e slot for future expansion^[SEP] • Rack mountable with suitable mounting kit^[SEP] • Redundant power supplies for all nodes^[SEP] • Next business day support^[SEP]
4	<p>Annexure - V Page no: 3 CPU-GPU compute Nodes</p> <ul style="list-style-type: none"> • Either NVIDIA Tesla V100 32 GB cards(2 per GPU node) or NVIDIA A100 40/80GB cards (1 per GPU node)^[SEP]At least 30% of the compute nodes (> 3 out of 10) to be CPU-GPU nodes (4 	<p>Annexure - V Page no: 3 CPU-GPU compute Nodes</p> <ul style="list-style-type: none"> • Either NVIDIA Tesla V100 32 GB cards(2 per GPU node) or NVIDIA A100 40/80GB cards (1 per GPU node)^[SEP]At least 30% of the compute nodes (> 3 out of 10) to be CPU-GPU nodes (4

	<p>preferable configuration options listed at the end of this document)</p> <ul style="list-style-type: none"> ● If configuring 1 GPU card per node, then there should be a free PCIe slot in the node for further expansion later on. ● At least 32 instructions per core per cycle. At least 192 GB main memory in a balanced configuration per node with 2666 MHz or more. ● At least 18 cores per socket with 2.4GHz or more base processor frequency. ● At least 2 TB SAS 15K RPM Hard disk per node ● Redundant power supplies. Rack mountable with suitable mounting kit. ● Vendor should quote for PCI-e and NVLink separately, if applicable ● Next business day support 	<p>preferable configuration options listed at the end of this document)</p> <ul style="list-style-type: none"> ● If configuring 1 GPU card per node, then there should be a free PCIe slot in the node for further expansion later on. ● At least 192 GB main memory in a balanced configuration per node with 2666 MHz or more. ● At least 18 cores per socket with 2.4GHz or more base processor frequency. ● At least 2 TB of space over all per node with 7.2K or 10K RPM SAS Hard disks ● Redundant power supplies. Rack mountable with suitable mounting kit. ● Vendor should quote for PCI-e and NVLink separately, if applicable ● Next business day support
5	<p>Annexture - V Page no: 3 Storage Node</p> <ul style="list-style-type: none"> - At least 100TB NAS in total for usable file system provided in the storage node - At least RAID 5 across the total storage. - It would be split as 60% of scratch area and 40% of home storage both available in all nodes <u>with an I/O bandwidth of 25 GBPS.</u> - Backup up of 40% of home with a NAS Storage of 10TB; with Necessary auto backup/restore control - Processor with at least 16 cores, at least 96GB RAM in a balanced 	<p>Annexture - V Page no: 3 Storage Node</p> <ul style="list-style-type: none"> - At least 100TB NAS in total for usable file system provided in the storage node - At least RAID 5 across the total storage. - It would be split as 60% of scratch area and 40% of home storage both available in all nodes - Backup up of 40% of home with a NAS Storage of 10TB; with Necessary auto backup/restore control - Processor with at least 16 cores, at least 96GB RAM in a balanced configuration

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Tender Inviting Authority:

The Senior Manager, Project Purchase,
I.I.T. Madras, Sardar Patel Road,
IC & SR Building, 2nd floor, Chennai – 600 036