



# भारतीय प्रौद्योगिकी संस्थान कानपुर INDIAN INSTITUTE OF TECHNOLOGY KANPUR

## भौतिकी विभाग DEPARTMENT OF PHYSICS

पत्रालय - आई.आई.टी. कानपुर - 208 016 (भारत) P.O.: I. I. T., Kanpur - 208 016 (INDIA) PB No. 51 Date 29/5/12

Dr. R Prasad

May 25, 2012

Sealed quotations are invited from the OEM or their authorized partner (partner must have valid authorization for this tender from the OEM) for HPC Cluster as described in the attached sheets. The vendors should also satisfy other terms and conditions as described below.

## Terms and Conditions:

- 1. All quotations must reach the undersigned by 12-06-12, 5 P.M.
- 2. Quotations must be valid till 30-08-12.
- 3. Quotations shall be submitted in two parts.
  - Part-I (Technical) should contain all the technical details cum specifications of the offered solutions (items 1 both option and 2).
  - Part-II (Financial) should contain the prices (items 1 both option and 2 separately) of the offered solutions along with commercial terms and conditions. The prices should not be quoted in the technical bid.
  - The envelopes containing Part-I and Part-II should be labeled clearly and kept in a bigger sealed envelope.
- 4. Warranty: Three years comprehensive on-site.
- 5. Delivery period will be 8 weeks.
- 6. IIT Kanpur is exempted from excise duty.
- 7. IIT Kanpur is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).

R. Prasacl

(R. Prasad) Professor

### 1. HPC Cluster

#### OPTION 1:

- Master Node (Quantity 1) Rack Server (2U): 2 X Hex core Intel Xeon processor X5670 @ 2.93 GHz with 12 MB L3 Cache, IQI 6.40 GT/s, Intel 5520 or better chipset, 48 GB DDR3 1333 MHz or higher ECC RDIMMs RAM (minimum 8 GB DIMM and should have 12 or more DIMM slot), dual Gigabit integrated Ethernet onboard, Management port, dual QDR Infiniband ports, 12 X 600GB SAS 10/15K RPM (Max. speed in the offered FF) hot swap disk, DVD+/- RW drive, redundant power supply. If system heated due to lack of AC, system should automatically shutdown systematically. CMU for the cluster from the Server OEM shall be provided and Configured
- Compute Node (Quantity 8) Blade Server: 2 X Hex core Intel Xeon processor X5670
   @ 2.93 GHz with 12 MB L3 Cache, IQI 6.40 GT/s, Intel 5520 or better chipset, 96 GB DDR3 1333 MHz or higher ECC RDIMMs RAM (minimum 8 GB DIMM and should have 12 or more DIMM slot), 250 GB 7.2K RPM SATA Disk, dual gigabit NIC, Management port, QDR Infiniband port,
- OS: 64 Bit Linux distribution, preferably CentOS, latest version.
- Blade Chassis: Full height chassis with fully loaded hot swap power supply configuration
  with at least N+1 redundancy, fully loaded hot swap cooling units, I/O Ports, DVDROM
  drive, management and automation tools.
- Cluster Interconnect: Infiniband, 4X- QDR, 100 % non-blocking, compatible with OFED and open MPI. single box/ internal/ federated switch based connectivity.
- **Software:** Open source Cluster monitoring and management software, compilers: FORTRAN; C; C++ (both GNU and Intel), OPENMPI.
- Workload management software: Free PBS workload management and job scheduling software should be provided.

### Option 2:

Same as above except that the Blade server is replaced by Rack Mount server (1U).