

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
2 A & B RAJA S. C. MULLICK ROAD
JADAVPUR, KOLKATA – 700032

**Invitation for Global Tender for Supply of a High Performance
Computing Cluster**
(Tender Notice No. SP/AD-1/2012-13)

Indian Association for the Cultivation of Science invites Sealed Tenders for purchase of a **High Performance Computing Cluster (HPCC)** to be procured from Start Up grant from Institute's Fund.

The bids are to be submitted in Two-Bid pattern i.e. **Technical Bid** and **Price Bid** in two separate sealed covers distinctly marked accordingly and both to be put inside another envelope, which should be sealed and **super scribed with 'High Performance Computing Cluster Tender' Tender Notice No., Due date and time of opening.** Two bids i.e. Technical Bid and Price Bid should be identical in all respects except that the Technical Bid should have blank space at the places where prices have been quoted in the Price Bid.

Interested vendors may please send their Bids to:

Dr. Ayan Datta,
Department of Spectroscopy
Indian Association for the Cultivation of Science
2 A & B Raja S. C. Mullick Road, Jadavpur
Kolkata – 700032

Tender Notice No.	SP/AD-1/2012-13
Last date and time of submitting tender	September 26, 2012 at 2:00 p.m.
Pre-bid meeting to discuss technical specifications	September 12, 2012 at 3:00 p.m.
Date and time of opening tender	September 26, 2012 at 3:00 p.m.
Place of opening tender	I.A.C.S., Kolkata
Contact	Email: spad@iacs.res.in Tel: +91-33- 2473 4971 (ext 2105)

In case the scheduled date of opening of tender is declared as holiday, the tender will be opened on the next working day at 3.00 P.M. The technical bids will be opened first to evaluate the technical specifications of the equipment and the price bids of the technically qualified companies only will be opened thereafter.

1. TECHNICAL BID:

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as “**Technical Bid**” on the outer side of the envelope as detailed above.

The Technical Specifications acceptable for the '**High Performance Computing Cluster**' are as follows:-

A). 1 x Master Node with following specifications-

Processor: 2 x AMD® Opteron® processor Interlagos 8C 6212 2.6G 16M
6400MT@2.6GHz or above.

Memory: 2 GB DDR3 1333 memory per processor core, with ECC
HDDs: 4 x 1000 GB capacity hot-swap, Enterprise class HDDs,
Configured as RAID (Hardware Raid)
Optical : Internal DVD RW drive
NIC : 2 x Gigabit Ethernet ports (excluding management port)
Infiniband : Upgradable
Management: IPMI 2.0 or equivalent, with dedicated management port.
Must support features such as KVM over LAN
Must include full-featured license, if any
Power Supply: Redundant, hot-plug power supplies
Form Factor: 1U or 2U rack-mountable or lower, with rails
OS: Enterprise Linux

- B). 4 x Compute/Slave Nodes** with following specifications
Processor : 2 x AMD® Opteron® processor Interlagos 8C 6212 2.6G 16M
6400MT@2.6GHz
or above.
Memory : 2 GB DDR3 1600 memory per processor core, with ECC
HDDs : 1 x 1000GB or higher capacity Enterprise class HDD
NIC : 2 x Gigabit Ethernet ports (excluding management port)
InfiniBand : Upgradable
Management : IPMI 2.0 or equivalent, with dedicated management port.
Must support features such as KVM over LAN
Must include full-featured license, if any
Form Factor: 1U Rack mountable or Lower rack-mountable, with rails
Power Supply: Redundant, hot-plug power supplies
OS: Enterprise Linux

C). Ethernet Switch with following specifications:

8-port (RJ45), Gigabit Ethernet, with required cable

D). Rack (*Suitable server rack to accommodate all nodes and all required accessories and with required no's octagonal/ICE PDU with MCB*)

E). UPS & Power: - The vendor should quote for Suitable UPS/Power Required with a Backup of ½ Hr on full load. (**5 KVA Online**)

F). Console: - .TFT monitor with keyboard and mouse.

G). Power, Heat & Cooling: - . Power consumption and heat dissipation estimate for the total Cluster should be mentioned clearly.

H). Warranty: - Three years on-site warranty for all components.

2. **PRICE BID:**

The financial bid indicating item-wise price for the items mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as “**PRICE BID**” on the outer cover of the envelope as already detailed above. The price bid of only technically qualified bidders will be

opened and they will be intimated the date and time of opening at their email id-s. Rest of the bids will stand rejected.

BID SECURITY:

1. An Account Payee Demand Draft/ Pay Order for **Rs. 32,000/-** (Rupees Thirty Two Thousand only) drawn in favour of "**Indian Association for the Cultivation of Science**" is to be furnished along with Technical Bid as Bid Security money (or EMD). Bidders registered with the Central Purchase Organizations, National Small Industries Corporation etc. may be exempted from paying EMD subject to their submission of a copy of valid registration certificate with their Technical Bids, failing which their bids will be rejected.
2. The Demand Draft/ Pay Order for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.
3. In case of non-award of the work the Bid Security money would be returned to the bidders.

PERFORMANCE SECURITY:

1. An Account Payee Demand Draft of **Rs. 64,000** (Rupees Sixty Four thousand only) drawn in favour of "**Indian Association for the Cultivation of Science**" is to be furnished by the successful bidder to be awarded the contract, as "Performance Security" money.
2. Performance Security should remain valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.
3. Bid Security would be refunded to the successful bidder on receipt of Performance Security.

General Instructions:

- i) **Vendor Eligibility:** The bids must be submitted by OEMs or OEM supported single vendors only with original authorization certificates from the OEMs. Vendors should have proven experience in setting up a HPCC of minimum 1 TFLOPS in the last three years in India. A brief proof for such experience (copies of orders/installation certificate) should be included in the technical bid.
- ii) **Submitting Tender:** The Tender should not contain any material (eg. brochures, company profiles etc.) other than the two above-mentioned covers containing specifically the items requested. The vendors are allowed to deviate from the specifications given below only when such deviations are demonstrated to be technically superior. Additional features in the quoted items which are better than those in the indent – may be highlighted.

The technical bid should not have any mention of pricing. The commercial bid should have the pricing for each option separately. Prices should be inclusive all charges (taxes/duties as applicable, shipping charges, delivery at site, installation etc.) with clearly indicated break-ups. Fax, e-mail Tender will not be accepted. Duplicate Bid document must be submitted in Separate closed cover.

- iii) **Installation and Commissioning:** Free of cost at IACS, Kolkata. The vendors are required to give an estimate of the time required for installation, fine-tuning of the cluster and hand-holding/training of the principal users in the technical bid. The vendor shall be responsible for setting up of High Performance Linux Cluster using Enterprise Linux OS or equivalent (to be provided by vendor). It will be highly desirable if the vendor has proven capability to install some commonly used quantum chemistry programs like Gaussian, ADF, Gamess, Polyrate, NWChem, Molpro, DeMon2K. Parallelized installation of quantum chemistry codes like Gaussian 09 TCP Linda is highly desirable.

- iv) **Training:** Free training on operation, maintenance and troubleshooting of the whole HPCC Solution should be imparted to at least 2 persons for a period of two weeks at the site of installation.
- v) **Compliance List:** The vendor must submit a table indicating the compliance of the features of the model of the components being quoted with those given in the indent. In case of non-compliance against a particular item, the vendor should justify that.
- vi) **Post-sale service:** The vendor must submit the names of the service engineers employed by them who are competent to serve the HPCC installation along with their contact details in India.
- vii) **Tender updates:** Prospective bidders may please refer to our website <http://www.iacs.res.in>, occasionally for any update on the tender which may appear from time to time either in respect of pre-bid meeting or otherwise.

Important information

1. Incomplete tenders will be summarily rejected.
2. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
3. For any query pertaining to this bid document correspondence may be addressed to Dr. Ayan Datta through email: spad@iacs.res.in
4. I.A.C.S., Kolkata reserves the right to accept or reject any or all the bids in part or in full without assigning any reason / drop any item or part thereof at any time before placing the Purchase Order.

Registrar