INDIAN INSTITUTE OF SCIENCE
BANGALORE - 560 012

The Supercomputer Education and Research Centre (SERC) is the country's leading computing centre having the state of the art computing facilities, catering to the ever increasing demands of high performance computing (HPC) for scientific and engineering research. The centre housing state of the art computing systems, with sophisticated software packages, is conceived of as a functionally distributed supercomputing environment and connected by a powerful high-speed network. For further details please see the web site http://www.serc.iisc.ac.in

SERC now seeks to recruit **two (2) Specialist Technologists** who will have overall responsibility for the different activities in the centre. The roles and responsibilities will be one of the following categories depending on the candidate's expertise and experience:
1. Infrastructure management
2. HPC Computing services
The selected two Specialist Technologists can be in one of the above two categories or one per category.

The detailed of the categories are explained below.

1. Infrastructure Management

Specific Roles & Responsibilities: The primary task is management of data center infrastructure including day-to-day monitoring and management of transformers, DGs, UPSes, chillers and other critical electrical components to keep the systems working 24/7. The infrastructure manager is also expected to play a primary role in monitoring and management of power and energy by the systems and designing for autonomous operations.

Essential Qualifications: A Masters degree in science or engineering with at least 8 years experience, hands-on familiarity with routine as well as sophisticated techniques at an advanced level in handling the above-mentioned infrastructure components. Specifically, the candidate must possess experience in managing a Tier-2 or higher data centre, as defined below :
Tier 1 – Non-redundant capacity components (single uplink and servers)
Tier 2 – Tier 1 +Redundant capacity components
Tier 3 – Tier 1 + Tier 2 + Dual – powered equipments and multiple uplinks
Tier 4 – Tier 1 +,Tier 2 + Tier 3 + all components are fully fault –tolerant including uplinks, storage, chillers , HVAC systems, servers etc. Everything is dual-powered.

The candidate should have secured at least a first class in all the undergraduate and graduate degrees.

Desirable qualifications : Experience in managing a Tier-3 or higher data centre. 2 to 4 years of relevant experience in managing atleast a 100Tflops HPC centre supporting 50+ users.

2. HPC Computing Services

Specific Roles & Responsibilities: The primary task is management of specialized HPC (high performance computing) services which include at least one of the following.
1. HPC application/storage optimization including performance analysis, identifying performance bottlenecks and improving application code for efficiency (or)
2. Data analysis and statistics including analysis of HPC workloads submitted to our supercomputers (or)
3. HPC visualization including helping HPC application developers visualize their data (or)
4. Development of HPC system software products, e.g., communication libraries, parallel numerical libraries etc. (or)
5. Development of HPC benchmark suite in collaboration with our supercomputer users (or)
6. Provide HPC service to Govt. and other agencies via actively seeking projects and active engagement (or)
7. Developing automation for our various tasks including monitoring various readings using sensors and actions based on those readings, automatic energy management etc.

In all cases, the candidate is expected to involve in conducting periodic HPC training lectures including parallel programming aspects to attendees from our Institute and outside.

Essential Qualificationss: A Masters degree in science or engineering with at least 8 years experience, hands-on familiarity with routine as well as sophisticated techniques at an advanced level in one of the following.
   a. Parallel programming
   b. Data analysis and statistics of computational workloads.
   c. Graphics and visualization. Strong academic training in computer graphics and algorithms. Experience with programming in C/C++, OpenGL, and software design required. Experience with GPU programming (CUDA) is preferred but not required.
   d. Wireless sensors management, automation and energy management.

In all cases, strong background in Linux, operating system concepts and programming are required. The candidate is expected to have good communication skills and should be willing to work in a team environment.
The candidate should have secured at least a first class in all the undergraduate and graduate degrees.

Desirable Qualifications : Experience working in HPC System Software or Application Development in at least a 100 TFlop HPC System.

Common to both the Categories

Age Limit : Should not have completed 50 years as on the last date for receipt of application (relaxable under exceptional conditions).

Emoluments: Initial salary inclusive of HRA will be fixed within the range of Rs.87000-Rs.186000 p.m, based on the candidate's qualification and experience. Yearly increment of Rs. 5000 p.m. subject to performance review.

General Conditions:

1. **Duration :** The positions are on contract and will be temporary for a period of ONE year and renewable annually for a maximum period of 5 years, based on satisfactory performance and at the discretion of the authorities of the Institute.
2. **Selection Method :** Interviews for short listed candidates will be held at Indian Institute of Science Campus, Bangalore.
3. Applicants, who possess the minimum educational qualification as on the date of advertisement only need to apply.
4. No accommodation will be available on the Institute campus.
5. Admissible age relaxation for SC, ST, OBC and PH will be extended as per norms of Government of India.
6. Applicants who are desirous to be considered strictly on the aforesaid conditions may submit their Bio-data by email to positions.serc@iisc.ac.in with subject "Application for the post of Specialist Technologist".
7. The photocopies of Marks cards/Certificates, Caste Certificate in case of SC,ST,OBC (OBC certificate should be in the format prescribed for jobs under Govt. of India), Medical certificate in the prescribed format in case of Physically Handicapped issued by the Competent Medical Authority for the purpose of employment to be submitted at the time of interview of the short-listed candidates.

Dated :   REGISTRAR