

## IT INFRASTRUCTURE SERVICE

### ONE (1) OPEN POSITION FOR A SPECIAL SCIENTIST (HPC ENGINEER).

**Title:** Special Scientist (Project Manager) - HPC Engineer

**Number of Positions:** One (1)

**Category:** Full time employment 38 hours/week (12) month(s) contract with the possibility of renewal (12 months)

**Place of work:** University of Cyprus, Nicosia, Cyprus

The IT Infrastructure Service of the University of Cyprus would like to announce one (1) vacant fulltime position in the capacity of a Special Scientist (HPC Engineer), for the University's High Performance Computing Cluster.

#### TERMS OF CONTRACT

The employment of the Special Scientist (HPC Engineer) will be with a contract. The duration of the employment will be initially for 12 months with the option to renew for another 12 months, based on performance. The monthly gross salary (it includes employee contributions) will be €1289,82. There is no provision for 13<sup>th</sup> Salary.

#### NECESSARY QUALIFICATIONS

- Bachelor's degree in a relevant field such as computer science, computer information systems, engineering or equivalent combination of education, training, and experience.
- Two years of experience in one of the following fields: information technology, system administration, or high-performance computing.
- Familiarity with low-latency/high-bandwidth, interconnected infrastructure (including Infiniband, 10/100GigE, and others).
- Expertise with HPC system software cluster management tools, job schedulers, and other HPC tools including Slurm, Ansible, and other relevant tools.
- Proficiency with fundamental programming skills (Bash, Python, C/C++ or similar languages). Expertise with administration, monitoring, and maintaining secure Linux/Unix operating systems (CentOS).
- Knowledge of HPC storage (FC, SAS) principles, file systems (NFS, Lustre, BeegFS, ZFS, etc.), and compute node storage.
- Familiarity with shared and distributed memory parallelism (OpenMP, MPI), and accelerators (GPUs).

- Excellent written and oral communication skills, and the ability to establish strong, positive working relationships and rapport with diverse groups of team members. Ability to drive technical leadership and management of complex, large-scale computing system projects.
- Proficiency with multi-vendor management, security and network/Internet protocols.
- Demonstrated expertise in design configuration and planning, with excellent organization skills, and the ability to identify and resolve problems and manage performance.
- Excellent written and oral communication skills, with experience presenting technical topics to nontechnical audiences.  
Ability to establish processes for maintaining system performance and managing best-in-class standards.

## **RESPONSIBILITIES AND DUTIES OF THE PROJECT MANAGER**

The HPC Engineer works with other IT Infrastructure Service team members and collaborates with leadership for the installation, and maintenance of software for the High-Performance Computing (HPC) Cluster. They are responsible for supporting the planning, implementation, availability, performance, security, maintenance, and repair of high-performance computing infrastructure.

Under the general supervision of the Deputy Director of Information Technology Infrastructure Service:

1. Performs administrative duties regarding the examination of various cases, problems and issues related to the responsibilities of the sector in which they are positioned and contributes to the development and implementation of the Operational Objectives of the organizational entity as well as in achieving the objectives of the sector in which they are placed.
2. In particular, under the supervision and guidance of their supervisor, the authority and responsibility, for the following functions/processes:
  - a. Coordinates and prepares studies and monitors and controls implementation of projects.
  - b. Collaborates and coordinates with other involved Organizations, Government Departments/Services and/or Private Consultants.
  - c. Prepares hardware and/or software specifications, technical terms and conditions contracts.
  - d. Advises on current issues regarding their area of expertise.
3. Submits suggestions for solving various problems, processes or ensures the implementation of the decisions taken, applies the relevant Legislation and Regulations and conducts relevant correspondence.

4. Contributes to the achievement of the Strategic Goals of the University through their contribution to the achievement of the Operational Plan of the Organizational Entity which is placed.
5. Participates in sessions, assists in record keeping and preparation and submission of suggestions and recommendations in order to optimize procedures and methods.
6. Takes initiatives and makes suggestions for improving methods and procedures followed in their field.
7. Performs any other administrative tasks related to their position, which are possible to be assigned to them.

### **SPECIFIC DUTIES**

1. Supports day-to-day operations for the HPC by monitoring computing resource performance, managing configurations, and addressing security administration. Applies revisions to system firmware and software. Engages and collaborates with vendors to assist with support activities as required.
2. Develops new HPC software deployment plans, custom scripts, and testing procedures to ensure operational reliability for UCY researchers. Trains UCY staff in the use of new software and hardware, either developed or acquired.
3. Maintains and manages HPC researcher accounts and logins for staff and UCY research groups. Installs, modifies, and maintains various research software applications for access on HPC clusters. Provides researcher support and documentation for software applications and programs.
4. Designs, installs, configures, and performs document management for cluster infrastructure, including operating systems, job schedulers, resource managers, provisioning managers, configuration managers, network devices, and other components.
5. Investigates, debugs, and addresses researcher inquiries and requests efficiently through a customer issue ticketing system. Communicates complex technical concepts in simple, straightforward language.
6. Explores emerging technologies and technical developments to address expanding analytical requirements. Identifies new services and develops implementation plans. Stays current with best practices in the HPC field. Maintains collaborative relationships with peer HPC research organizations.
7. Contributes to an inclusive environment that values differences by building and maintaining collaborative relationships with team members, and peers. Actively embodies the University's values and behaviours including accountability, ethics, and best practices in user support. Contributes to a culture of trust and transparency by sharing information openly, and deliberately.
8. Performs other related duties as assigned or requested. The university reserves the right to add or change duties at any time.

## **SUBMISSION OF APPLICATIONS**

All applicants are requested to submit the following information:

- i. Full CV in English
- ii. Copies of detailed transcripts of qualifications
- iii. Names and contact details of at least two referees that can provide reference letters for the candidate

The application must be submitted online via the following link until Monday, 30<sup>th</sup> of January 2023: <https://applications.ucy.ac.cy/recruitment>

For more information, please contact Dr. Marios Constantinou at [Constantinou.marios@ucy.ac.cy](mailto:Constantinou.marios@ucy.ac.cy)

At least the best three candidates that satisfy the required qualifications, will be interviewed by a 3-member Committee.

Candidates shall be informed of the result of their application by the relevant entity.

The University of Cyprus shall collect and process your personal data according to the provisions of the General Regulation on Personal Data 2016/679 (EU).

The University of Cyprus (UCY) is committed to promoting inclusivity, diversity, and equality, as well as the elimination of all forms of discrimination in order to provide a fair, safe, and pleasant environment for the entire university community, where students and staff members will feel supported both in their professional and personal development, within and beyond their multiple identities. To this end, UCY seeks to create the necessary conditions that will encourage and respect diversity, and ensure dignity both in the workplace and society at large. Moreover, UCY has adopted specific policies to promote equal opportunities, as well as respect and understanding of diversity, while it is committed to promoting and maintaining a working, teaching, and learning environment, free from any form of discrimination, whether direct or indirect.