

Engineer/Physicist
at the **Extreme Light Infrastructure – Nuclear Physics (ELI-NP)**
Research Activity 5 – Experiments with Combined Laser and Gamma Beams
Detectors, DAQ and Control Systems

Job Description and Candidate's Profile

Scope of Work

In the implementation phase, ELI-NP engineers/physicists will provide technical support for ELI-NP in correlation with the technological strategy, focusing mainly on ensuring the commissioning of the infrastructure and its further operation.

In the operational phase, the engineers/physicists will ensure the optimal operation of the laser optical systems of the experiments within RA5 and will participate to their upgrades and to the development of new experimental setups.

Main responsibilities

In the implementation phase:

- The engineers/physicists in Research Activity 5 will participate to the design and construction of the experimental setups, market research and writing specification for equipment purchase, communication with companies, installing, testing and commissioning of the equipment;
- They will gather the knowledge and experience necessary to ensure the operation of the infrastructure and of the related equipment;
- Ensuring the best and efficient collaboration and dialogue between the research staff and the equipment suppliers and services providers;
- Ensuring the conformity of the activities with the standards in the field.

In the operational phase:

- Maintain the performances and the optimal use of the equipment;
- Participate to the upgrades of existing equipment and the development of new experimental setups;
- Actively participate in the technological development activities performed at ELI-NP – mainly, Research Activity 5.

Main tasks

- Building and commissioning the equipment and the laboratory setup for the implementation of the Technical Design Reports of Research Activity 5;
- Performing tasks within Research Activity 5 related to one or more of the following subjects: Detectors, Data Acquisition, Control Systems;
- Ensuring efficient collaboration and dialogue between research staff and suppliers of equipment and various services;
- Ensuring the conformity of the activities with the standards in the field;
- Participating in maintaining the performances of the ELI-NP equipment and systems to the desired level ;
- Actively participating in the technological development activities performed at ELINP;
- Providing specific technical support for the experiments.

Professional background:

- Bachelor or Master's degree in Electronics/Computer Science/Automatics or related field;
- Experience with developing complex detector systems for high energy physics, nuclear physics or laser systems;
- Electronics: Front-end analog design (modelling, simulation, measurement techniques), PCB design for high-speed circuits;
- Programming: C and/or C++;
- Windows and Linux proficiency;
- Software development practices: Usage of version control systems, thorough documentation;
- Fluency in English, both written and spoken;
- Goal-oriented attitude;
- Willingness to continuously improve and develop new skills;
- Proven teamwork experience, communication and efficient collaboration skills;
- Availability to travel and perform work stages abroad.

Would be a plus, but at least 1 required:

- Experience with SCADA systems (e.g Tango, EPICS, WinCC OA);
- Programming: LabVIEW, Python, Bash scripting, Java, ROOT;
- Remote instrument control.

Working arrangements/Conditions of employment:

- Full-time position, based in Bucharest–Magurele, Romania.
- Included: private medical coverage, paid annual leave;
- Motivating salary, at European level, based on qualifications and experience
- Professional, multicultural and interdisciplinary work environment

Applications:

Applications shall be accompanied by the documents requested in the Rules of Selection for this position.

Applications shall be sent to the Human Resources Department at human.resources@eli-np.ro .