

Engineer

at the **Extreme Light Infrastructure – Nuclear Physics (ELI-NP)**

Research Activity 4 – Nuclear Physics and Applications with High-Brilliance Gamma Beams

Data Acquisition Systems

Job Description and Candidate's Profile

Scope of Work

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

In the operational phase, the engineer will ensure the optimal operation of the experimental setups within Research Activity 4 and will participate to their upgrades and to the development of new experimental setups.

Main responsibilities:

In the implementation phase:

- Participating 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;
- Gathering the knowledge and provide the expertise 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:

- Maintaining the performance and the optimal use of the equipment;
- Participating to the upgrades of existing equipment and the development of new experimental setups;
- Participating in the technological development activities performed at ELI-NP, and mainly Research Activity 4.

Main tasks:

- Building and commissioning the equipment and the laboratory setup for the implementation of the Technical Design Reports of Research Activity 4;
- Performing tasks within Research Activity 4 related to one or more of the following subjects: Data Acquisition Systems, Digital Signal Processing and Front-end Electronics;
- 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 ELI-NP;
- Providing specific technical support for the experiments.

Professional background:

- Bachelor or Master degree in Computer Science/Automatics/Electronics/Physics or related field;
- Experience with developing complex detector systems/data acquisition systems for high energy physics, nuclear physics or related fields;

- Experience with FPGA and microcontroller programming;
- Electronics: Front-end analog design (modelling, simulation, measurement techniques) and/or digital signal processing;
- Proficiency in C and/or C++ programming languages;
- Windows and Linux proficiency;
- 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 one is required:

- 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