

Position with salary for a student

NCN project Preludium 17 DEC-2019/33/N/ST2/02780

„Construction of a high-granularity scintillating detector prototype for applications in medical physics”

Project description:

The aim of the project is construction of the gamma radiation detector prototype for application in medical physics. Prototype can serve a purpose of developing of new methods of dose deposition monitoring in proton therapy, as well as new methods of imaging in nuclear medicine. The prototype applies technologies used in particle and high energy physics, e.g. inorganic scintillating fibers, modern silicon photomultipliers and FPGA based electronics. Therefore the project has interdisciplinary character on the border of nuclear and medical physics. There is a variety of interesting research tasks planned within the project, such as laboratory tests with the prototype, analysis and interpretation of the experimental data, or development of the data acquisition system and image reconstruction algorithms.

The project is realized at the Faculty of Physics, Astronomy and Applied Computer Science of Jagiellonian University in collaboration with RWTH Aachen University. Project leader is Katarzyna Rusiecka, MSc.

We offer one position with salary within the project. Research conducted within the project can be the topic of the diploma thesis.

Requirements:

- status of student in physics, biophysics, computer science or similar (required starting latest in October 2020)
- basic knowledge in nuclear physics
- knowledge of at least one programming language (preferably C, C++, Python)
- communicative English language
- interest in experimental work
- ability to work in a group

Examples of tasks:

- tests and optimization of the components of the detector prototype
- analysis and interpretation of the experimental data
- presentation of the results during group meetings and conferences

Salary:

Information about the salary will be given during the interview

Documents:

CV and cover letter, transcript of records, description of previous scientific work and achievements (optional)

Deadline and form of application:

The deadline for applications is **15th October 2020**. All documents merged into single pdf file should be sent to katarzyna.rusiecka@doctoral.uj.edu.pl. Please include the consent for the processing of personal data according to the template: http://bragg.if.uj.edu.pl/RODO_Stypendium.docx.

Additional information:

Interested candidates are invited to contact us directly in order to learn more details about the project. Selected candidates will be invited for an interview. The position will be offered to one of the candidates selected by the committee chaired by the project leader.