The Joint Institute for Nuclear Research (JINR) of Dubna, Russian Federation, is one of the leading research centers in nuclear, condensed and high-energy particle physics. The Institute is currently undergoing through a broad modernization of all its experimental facilities, with the most ambitious project being the Nuclotron-based Ion Collider fAcility (NICA). The collider is presently under construction at JINR’s Laboratory of High Energy Physics (LHEP) and is expected to be commissioned by 2022-23. NICA will accelerate and collide ions of gold in the energy range favorable for a search of Critical Phenomena, which is thought to be the alternative way for creating the quark–gluon plasma (QGP) state of matter. For more than a decade the QGP has been under experimental study by a large community of scientists working on the field of high-energy physics at CERN and BNL.

A young team of scientists and engineers at LHEP designs and manufactures Silicon Tracking Systems based on the usage of silicon microstrip detectors for the BM@N experiment at NICA (http://bmn.jinr.ru) and the CBM experiment at FAIR (https://fair-center.eu/for-users/experiments/cbm-and-hades/cbm.html). These tasks are convoyed by a plan of building the Inner Tracking System (ITS) for NICA’s flagship experiment: the Multi-Purpose Detector (MPD, http://nica.jinr.ru/projects/mpd.php). The construction of MPD-ITS will benefit from a novel technology developed by the ALICE experiment at CERN for the upgrade of its own Inner Tracking System (ITS2), based on concentric cylindrical layers Monolithic Active Pixel Sensors.

Positions

NICA project offers two positions for middle/senior professionals with strong interest in developing large aperture silicon tracking systems for high-energy particle physics research. The successful candidates will be part of a team the transfer of CERN/GSI-developed technologies for building silicon trackers for NICA.

Requirements

- Physicist or Engineer with several years of experience in the design and development of components for large aperture silicon tracking systems;
- Advanced understanding of trackers architecture, methods for their assembly and readout;
- Skills in automation and system controls;
- Computer science skills in Linux, Firmware and Software development;
- Strong motivation and problem solving capabilities;
- Excellent teamwork and verbal/written English communication skills.

Offer

JINR will employ the candidates with the status of middle/senior Scientist or Engineer. They will receive a 4-years contract with a salary between 2000 and 3000 EUR per month, depending on the experience of the candidate and the need of his/her specific expertise for the team.

Application

The application must include:
- Curriculum vitae.
- The description of the latest activities on a relevant field.
- Letter of recommendation of at least one referee.

All qualified individuals are encouraged to apply without regard to age, gender or national origin, by sending the requested documents to sts-dept@jinr.ru with subject “Application for NICA STS” within three months after the publication of this announcement.

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