

Department of Physics

Research Internships

Duration: 4 months

Supervisor: Professor Dmitriy Zimnyakov

e-mail: zimnykov@mail.ru

Language of training: English

Audience: post-graduate students

Department of Physics of Yuri Gagarin State Technical University of Saratov is able to provide the practical on-the-job training for post-graduate students specializing in the areas of laser physics, material science, and sensorics.

Topics of the internship:

- the experimental studies and theoretical modeling of the electrical and optical properties of dispersed semiconductor or dielectric systems in applications to synthesis and characterization of novel functional materials for photonic and sensor applications (the title of training course is "Photonics of dispersive systems", the duration is four months (approximately 670 hours), the working language is English; the output of training should be one or two papers submitted to high-level scientific journals);

- the design and characterization of polymer-based composite materials for tissue engineering and regenerative medicine using supercritical fluidic technologies (the title of training course is "Fundamentals and applications of supercritical fluidic technologies", the duration is four months (approximately 670 hours), the working language is English; the output of training should be one or two papers submitted to high-level scientific journals);

- the design and characterization of nanostructured low-dimensional semiconductor systems as a material platform for creation of chemoresistive multichannel sensors (the title of training course is "Novel trends in the design of multichannel nanosensors", the duration is four months (approximately 670 hours), the working language is English; the output of training should be one or two papers submitted to high-level scientific journals).