

JOB OFFER

Position in the project: Student

Scientific discipline: Engineering and Technology: photonics, optical metrology

Job type (employment contract/stipend): stipend

Number of job offers: 2

Stipend amount/month: 1500 PLN

Position starts on: 01.04.2017

Maximum period of contract/stipend agreement: 12 months

Institution : Photonics Engineering Division, Institute of Micromechanics and Photonics, Warsaw University of Technology, Warsaw

Project leader: prof. Małgorzata Kujawińska

Project title: BiOpTo: Tomographic phase microscope for biomedical applications

Project description:

The main goal of the project is to develop, test and prepare for commercialization (TRL7) a novel tool for quantitative 3D analysis of phase biological microobjects namely the tomographic phase microscope (TPM). TPM is working with projections acquired within a limited angular range, which are captured sequentially or through an innovative system of parallel projections. The system of computational imaging provides full processing path: from digital acquisition of investigated object's projections up to 3D visualization. The TPM supports such biomedical applications as histopathology, traceable measurement of cells and tissues, advanced therapy medicinal products for the treatment of osteoarthritis, cancer and cardiac diseases. In the course of the project, an initial business plan will be created in order to prepare the TPM for commercialization.

Key responsibilities include:

1. Responsibilities related to development of phase microscopy and optical tomography systems for investigation of phase microobjects; responsibilities may include programming, construction of optomechatronic system and metrological analysis
2. Preparation of biological samples, measurements of these samples and development of software for data analysis
3. Responsibilities can be connected to diploma or intermediate project within student course

Profile of candidates/requirements:

1. The offer is directed to master's level students (completed engineering or bachelor degree)
2. Student in technical (photonics engineering, mechatronics, biomedical engineering) or physics field
3. Knowledge of English that allows to understand scientific literature
4. Programming skills Matlab/Python

Required documents:

1. CV
2. Motivation letter
3. Transcript of records from engineering, bachelor and master courses
4. References (min. 1)

Please submit the following documents to: electronically to zif@mchtr.pw.edu.pl, please write "Student Candidate for BiOpTo" in the message title.

Application deadline: 05.03.2017

For more details about the position please visit:

Please include in your offer:

"I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended."