

JOB OFFER

Position in the project:	PostDoc
Scientific discipline:	Engineering and Technology: photonics, optical metrology
Job type (employment contract/stipend):	employment contract
Number of job offers:	1
Remuneration/stipend amount/month ("X0 000 PLN of full remuneration cost, i.e. expected net salary at X 000 PLN"):	11.000 PLN of full remuneration cost (75% involvement in the project), i.e. expected net salary at level 7.500 PLN
Position starts on:	01.03.2020
Maximum period of contract/stipend agreement:	18 months
Institution:	Photonics Engineering Division, Institute of Micromechanics and Photonics, Warsaw University of Technology, Warsaw
Project leader:	prof. Małgorzata Kujawińska
Project title:	Project is carried out within the project BiOpTo: Tomographic phase microscope for biomedical applications realized within Team-Tech program of the Foundation for Polish Science
Project description:	<p>The main goal of the second stage of BiOpTo project is to extend the functionality of the LAODT system with the possibility to work in reflection mode. Such system, called OCDT, will be capable of performing <i>in vivo</i> measurements of 3D RI distribution. Develop signal formation theory and algorithms that will integrate OCT and ODT in reflection mode and reconstruction of a geometric structure together with quantitative refractive index. In reference to the first</p> <p>Also we aim (in relation to the first stage of the project) to enhance the commercial potential of LAODT (transmission mode) systems through significant reduction of ODT calculations through implementation of LAODT algorithms on FPGA and through utilization of dedicated electronic drivers.</p>
Key responsibilities include:	<p>Responsibility for:</p> <ol style="list-style-type: none"> 1. Numerical simulations of measurements acquired with optical tomography setup operating in reflected/backscattered light mode. 2. Development of selected modules of a software for processing of data from optical tomography setup operating in reflected/backscattered light mode and integration of this software with algorithms for processing of data from optical tomography setup operating in transmission mode. 3. Cooperation with the team on implementation of methods for speed up of tomographic reconstruction algorithms (FPGA, CUDA). 4. Contribution to the development of strategies for the commercialization of optical diffraction tomography setup in both static and dynamic mode. 5. Close cooperation with other project participants in order to implement the developed numerical solutions in experimental setups.
Profile of candidates/requirements:	<ol style="list-style-type: none"> 1. PhD degree with specialization in optics, physics or mathematics, 2. Fluent knowledge of the Matlab/Python environment, 3. Expertise on numerical methods used in optical diffraction tomography and optical coherence tomography, including tomographic reconstruction algorithms - confirmed by scientific papers, 4. Expertise in parallel computing (CUDA technology), 5. Expertise in the design and construction of optical systems with particular emphasis on microscope systems 6. Expertise on measurements of highly scattering biological micro-samples, 7. Excellent knowledge of English at a level not lower than C1. 8. Strong motivation to scientific work.
Required documents:	<ol style="list-style-type: none"> 1. Letter of motivation, 2. CV, 3. Recommendation letter,

	<ul style="list-style-type: none"> 4. List of scientific papers and conference proceedings, 5. Copy of the higher education diploma at PhD level.
We offer:	Unique conditions for scientific research in innovative area of photonics.
Please submit the following documents to:	Electronically to zif@mchtr.pw.edu.pl , please write "PostDoc Candidate for BiOpTo" in the message title.
Application deadline:	10.02.2020
For more details about the position please visit (website/webpage address):	https://biophase.pl
Euraxess job/stipend offer (in case of PhD and postdoc positions):	https://euraxess.ec.europa.eu/jobs/478598

CV SHOULD INCLUDE A STATEMENT:

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, we also require that your job advertisements include a clause requesting the candidate's consent to the processing of his or her personal data by the institution which carries out the recruitment process.

Hereby I declare that I meet the requirements described in the w art. 113 Act from 20 July 2018. Law on higher education.

Your personal data is processed on the basis of the Article 6 Part 1 Points (c) and (f) of the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (GDPR; Official Journal of the European Union L 119/1).