

JOB OFFER

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| Position in the project: | PhD Candidate |
| 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"): | 5.300 PLN of full remuneration cost, i.e. expected net salary at 4000 PLN |
| Position starts on: | 01.07.2018 |
| Maximum period of contract/stipend agreement: | 16 months |
| Institution: | Photonics Engineering Division, Institute of Micromechanics and Photonics, Warsaw University of Technology, Warsaw |
| Project leader: | prof. Małgorzata Kujawińska |
| Project title: | <i>Project is carried out within the BiOpTo: Tomographic phase microscope for biomedical applications programme of the Foundation for Polish Science</i> |
| 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: | <ol style="list-style-type: none"> 1. Development of methodology for tomographic investigation of biological cell & tissues and its relevance to conventional microscopic methods. 2. Development of AI methods for 3D cellular / tissue data analysis and tools for diagnosis support. 3. Cooperation with other participants of the project in experimental data capture and post processing in order to implement the numerical methods into experimental setups. 4. Cooperation with medical and biological partners of the BiOpTo project 5. Cooperation with business partners in promoting the TPM and DHM systems. |
| Profile of candidates/requirements: | <ol style="list-style-type: none"> 1. Higher education degree with specialty in the field of optics, biomedical engineering, physics. 2. Good knowledge of Matlab and Python environments 3. Expertise in the field of biological engineering at cellular and tissue level 4. Experience at microscopy and holography 5. Very good knowledge of English confirmed by a certificate 6. Strong motivation for scientific work |
| Required documents: | <ol style="list-style-type: none"> 1. Cover letter 2. CV 3. A transcript that includes grades from the last two years of the studies (or PhD studies) with the final grade from the studies. 4. Recommendation letter 5. List of publications and conference papers 6. Copy of the higher education degree diploma 7. Certificate of English |
| We offer: | Unique conditions for scientific research in innovative area of photonics. |

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| Please submit the following documents to: | Electronically to zif@mchtr.pw.edu.pl , please write "PhD Candidate for BiOpTo" in the message title. |
| Application deadline: | 11.06.2018 |
| For more details about the position please visit (website/webpage address): | |
| Euraxess job/stipend offer (in case of PhD and postdoc positions): | Job Offer id: 304260 |

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."