Project: ***[GaboScope] Numerically enhanced lensless Gabor microscopy for high-throughput marker-free investigation of dynamic live biosamples***
Principal Investigator: Maciej Trusiak, PhD
Position in the Project: Postdoctoral Researcher in the Institute of Micromechanics and Photonics.
Institution: Photonics Engineering Division, Institute of Micromechanics and Photonics, Faculty of Mechatronics, Warsaw University of Technology.

Requirements:
1. PhD degree in the field of Optics, Physics, Biomedicine, Computer Sciences or Engineering (obtained not later than 7 years before this call and not from WUT).
2. Very good experimental skills in holographic imaging, microscopy, optical design, optical measurements. Experience in deep learning frameworks.
3. Very good knowledge of Matlab/Python/LabView environments.
4. Outstanding track record and documented unique opto-numerical skills.
5. Fluent English.
6. Strong motivation and passion for scientific work both independently and as a part of a team in an interdisciplinary environment, with the ability to creatively propose solutions to problems at hand, pay close attention to detail and to meet deadlines.
7. Excellent soft skills.
8. Experience in dissemination of research results to the scientific community, writing grant proposals and establishing international cooperation.

General description of key responsibilities:
In the GaboScope we aim at advancing the Gabor lensless holographic microscopy (LHM) in terms of high-throughput label-free bio-imaging of dynamic live cells with algorithmic specificity in hologram low signal-to-noise-ratio regimes.
Postdoctoral Researcher will be responsible for designing, implementing and testing novel and classical experimental setups for lensless Gabor holographic microscopy, collecting data, verifying developed numerical tools, co-developing the deep learning framework enabling object specificity in LHM etc. Detailed responsibilities and scientific involvements include:
- leading the work package on novel experimental advances and bio-imaging applications (with specified tasks related to investigating the influence of spatiotemporal coherence on the LHM capacity, developing tomographic lensless microscopy, exploring two-source LHM systems and conducting application-driven research with project partners: The Arctic University of Norway, the Mossakowski Medical Research Center Polish Academy of Sciences, the University of Valencia and the Nanjing University of Science and Technology);
- crucial involvement, as a main provider of experimental data, tester of numerical algorithms and co-developer of the deep learning frameworks, in work packages related to advancing numerical phase/amplitude reconstruction of time-dependent 3D objects in large volumes imaged by LHM and achieving label-free numerically-driven specificity in LHM imaging of dynamic morphologically-rich objects.

A successful dissemination of results to the scientific community is expected. Moreover, co-supervising PhD students and Master students will be required. Establishing and expanding international cooperation within the project will be most welcome.

What we offer:
1. Employment contract and competitive remuneration package.
2. Work in dynamic and competent scientific group with excellent research environment and international cooperation promoting publications in high impact journals.
3. Financial support of abroad scientific visits and attending conferences.
4. Encouragement and support in preparing grant applications and general career development.

Type of NCN Project: SONATA16 – ST.
Application deadline: 31.07.2021, 23:59. Results available on 07.08.2021.
Please submit the following documents to: maciej.trusiak@pw.edu.pl

Conditions of employment:
Full time position for 34 months at Institute of Micromechanics and Photonics, Warsaw University of Technology. Total remuneration of 10000 PLN per month ("brutto brutto" NCN-regulated postdoc salary).
Preferred time of starting the position: 1st October 2021.
If your application is successful and you accept our offer of employment, you will receive the employment agreement and all other relevant documents. The call deadline may be extended at any time without previous notice to improve the suitability and effectiveness of the recruitment process.

Additional information:
To apply, please send your application, including motivation letter, CV with the list of your publications and achievements, PhD thesis and a copy of PhD degree (or equivalent confirmation of having PhD degree) alongside with contact information to the scientific supervisor and other referees (if available) to the following e-mail address: maciej.trusiak@pw.edu.pl (deadline 31.07.2021). Applications from PhD students that will receive their degree before 1st October 2021 are also welcome.

We thank all applicants for their interest; however, only selected candidates may be invited for an interview. Applications will be accepted until the position is filled. If the winner of the competition resigns from signing the contract, we reserve the right to choose the next best person from the ranking list.

Due to the entry into force of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016, all candidates are requested to provide consent to the processing of his or her personal data by the institution which carries out the recruitment process.

Thus, please include in your application the following statement: "I hereby agree to the processing of my data included in the application documents by Warsaw University of Technology, Warsaw, Poland, to carry out the recruitment process."

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).