



INNOVATIVE ECONOMY
NATIONAL COHESION STRATEGY



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



Position: PhD student within project “Phase microscopy and tomography – new approach to 3D measurements of biological and technological structures (3DPHASE)”.

Number of stipends: 1

Institution: Photonics Engineering Division / Institute of Mechatronics and Photonics / Warsaw University of Technology / Warsaw

Maximum period of stipend agreement: 40 months

Position starts on: 1.03.2012

Stipend's amount: 3500 PLN

Pension insurance: yes

Key responsibilities include:

1. Design of phase reconstruction methods for single beam phase microscopy that are based on the transport of intensity equation, inversion of optical transfer function or Gabor holographic methods (theoretical and experimental works)
2. Development and accuracy analysis of numerical tools of phase reconstruction methods for experimental systems of phase microscope
3. Development of a theoretical (numerical) model for analysis: effect of partial coherence of illumination, properties of specimens that inhibit a high phase gradient as well as a large phase difference.
4. Close collaboration with other team members for application of new numerical and theoretical solutions in experimental system of phase microscope

Profile of candidates:

1. Strong motivation for scientific work
2. Master degree in field of optics, physics or mathematics
3. Confirmed level of English
4. Very good knowledge of Matlab for development of: software for optical system, software for peripheral devices, coding of methods of image processing
5. Skills for work within a team, self-contained work

Required documents (in English):

1. Motivation letter
2. CV
3. Copy of university degree
4. Copy of official transcript of student record with average score
5. Two recommendation letters
6. List of publications and conference abstracts
7. Confirmation of level of English

For more details about the Team 3DPHASE project please visit:

<http://zif.mchtr.pw.edu.pl>

Principal Investigator:

prof. dr hab. Małgorzata Kujawińska

Address for applications: zif@mchtr.pw.edu.pl ("3DPhase_TEAM – PhD" should be given as a message subject)

Closing date: 03.02.2012

Please include in your offer:

"In accordance with the personal data protection act from 29 th August 1997, I hereby agree to process and to store my personal data by the Institution for recruitment purposes".

The granting institution may seek to contact the best candidates only