



NATIONAL TECHNICAL UNIVERSITY OF ATHENS



PHYSICS DEPARTMENT



FP7-PEOPLE-2012-IAPP

**Marie Curie Industry-Academia Partnerships and Pathways (IAPP)
“Laser Digital Micro-Nano fabrication for Organic Electronics and Sensor
applications” (LaserMicroFab)**

Post-doctoral position

In the framework of the FP7 IAPP Marie Curie project "LaserMicroFab" an 18 months Post Doctoral position opening is offered at the National Technical University of Athens/Physics Department.

Criteria for eligibility: (a) Nationality: all nationalities eligible, (b) Mobility: at the time of recruitment, the newly recruited researcher must have NOT resided or carried out his/her main activity in the country of the beneficiary (GREECE), for more than 12 months in the 3 years immediately prior to his/her recruitment under the project. Compulsory national service and/or short stays such as holidays are not taken into account. To be eligible, the newly recruited researcher must be an experienced researcher (at the time of recruitment is already in possession of a doctoral degree, or having at least 4 years of full-time equivalent research experience) and at the time of recruitment was not a staff member researcher at NTUA.

“LaserMicroFab, Laser Digital Micro-Nano fabrication for Organic Electronics and Sensor applications” is a FP7 IAPP Marie Curie project of the European Commission. The main activities of this post-doctoral position will be focused on ‘laser micro-printing’, ‘laser micro-curing’ and “laser development of biosensors”. The laser micro-printing process, which is also known as laser induced forward transfer (LIFT), has demonstrated its great ability to print with high resolution a wide range of organic, inorganic and biological materials. In the frame of this post doc, LIFT will be used to print nanoparticle metallic inks for interconnection purpose and biological material for biosensor realisation. The process will be optimized to improve the resolution of the printed patterns and to determine any limitations in an industrial context. Also of interest is the detailed study of laser sintering of LIFT printed metallic lines. Morphological and electrical characterization will be realized.

Required skills:

- Physics or Engineering diploma and a PhD in Physics, Material Science or Engineering or 4 years research experience.
- Excellent oral and written communication in English
- Team work and flexibility in learning new skills
- Eagerness to carry out independent work
- Eagerness to assist with MSc and PhD student supervision
- Eagerness to get involved in new collaborative-funded research projects





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Essential skills/ Technical expertise required: Optics, Laser materials processing, characterization (SEM, AFM, electrical properties). Any additional expertise in laser-based biosensors would be highly advantageous.

Duration: 18 months

Start Date: March 2014

Location: National Technical University of Athens (NTUA)/Physics Department, Hroon Polytehneiou 9, 15780 Zographou, Athens

Gross salary: ~ 5500 €/month (leaving and mobility allowance)

Contact person: Ioanna Zergioti, Associate Professor, NTUA/Physics Department, zergioti@central.ntua.gr Iroon Polytehneiou 9, 15780 Zographou, Athens <http://zergioti.physics.ntua.gr/>

Project website: <http://lasermicrofab.ntua.gr/>

The applicants should submit their CV including list of publications at <http://lasermicrofab.ntua.gr/> and two reference letters at the zergioti@central.ntua.gr

