



PhD position in Nanofabrication for Next Generation X-Ray Imaging

A fully funded four-year PhD studentship is available to UK students/EU students who can meet the criteria as set out here:

<https://www.ucl.ac.uk/research-services/research-studentships/eu-and-overseas-students>

Duration of study: Full time - four years fixed term

Starting date: *October 2020 (or as soon as possible)*

Application deadline: *30th July 2020 (or until filled)*

Primary Supervisor: Prof Ioannis Papakonstantinou, University College London

Project:

A multidisciplinary consortium from UCL comprising the Photonic Innovations Lab in the Department of Electronic and Electrical Engineering, the Advanced X-Ray Imaging group in the Department of Medical Physics and Biomedical Engineering, and the Centre for Inverse Problems in Computer Science has received strategic funding from UKRI (Nikon-UCL Prosperity Partnership on Next-Generation X-Ray Imaging) to support a partnership tasked with developing disruptive approaches to the use of x-rays in science, industry, medicine and security.

Our prime industrial partner is Nikon X-Tek Systems and additional industrial partners include ISDI, Scintacor and Quantum Detectors. Other partners include the Swiss Federal Laboratories for Materials Science and Technology and three synchrotrons (Diamond, Elettra and the ESRF).

The Photonic Innovations Lab is taking the lead in the nanofabrication/nanotechnology tasks of the project and we are looking a suitable PhD student to join our team. Representative tasks include photolithographic patterning, reactive ion and chemical etching, metal deposition, surface characterisation and other advanced nanotechnology processes. The PhD student in the fabrication strand are expected to interact closely with their colleagues and academics who design and characterise the x-ray masks. Comprehensive training in the state-of-the-art clean-rooms at UCL as well as in the laboratories of the photonic

innovations lab will be provided. The position is open to students with engineering, physics, materials science or other similar scientific background. No prior expertise in nanotechnology is required.

The partnership places a high priority in integrating all activities so appointed PhD candidates will be expected to work across multiple research groups, spend time both in academia and in industry, and participate in experiments at synchrotrons.

Qualifications required:

All studentships will be available for up to **4 years**; candidates must have a UK first class or 2:1 honours degree, an MSc, or their **international equivalent** in the same fields. Studentships are available to UK and to **all EU students** regardless of whether they have resided in the UK in the previous 3 years.

Funding: This is a fully funded 4-year studentship available to **Home/UK/EU students** covering tuition fees plus a tax-free stipend of £17,280 per annum (2019/2020 rates) for living costs (increasing with inflation).

How to apply / Contact: Interested candidates should contact Prof Ioannis Papakonstantinou (i.papakonstantinou@ucl.ac.uk) to discuss the details of the project.

UCL is committed to equality and values diversity.