

Leverhulme Trust Supported PhD Studentship (3 years)

Nonlinear waveguide-based all-optical waveform generators

Applications are invited for a three year PhD studentship, supported by the Leverhulme Trust to be undertaken within the [Photonics Research Group](#) at Aston University. The successful applicant will join a world-renowned Research Group and will be working at the cutting edge of interdisciplinary research problems and industrial applications.

The position is available to start in March 2012 (subject to negotiation)

Financial Support

Financial support will be provided to the successful applicant to cover the Home/EU fees rate plus a maintenance grant of £13,590 (equivalent to the standard EPSRC stipend).

Background of the Project

The project is devoted to the development of new methods, approaches and technology for the design of optical waveguide- and fibre-based devices with engineered nonlinear and dispersive properties for nonlinear shaping of optical pulse waveforms. Key application demonstrations in nonlinear microscopy, optical signal processing for telecommunications and light sources for mid-infrared sensing are targeted.

The student will carry out the major part of the numerical modelling work in the project and be involved in the laboratory work, the level of involvement depending on his/her progress with the modelling work.

Person Specification

The successful applicant should preferably have a first class or upper second class honours degree or equivalent qualification in physics, applied or computational mathematics, photonics, or appropriate closely related discipline. Preference will be given to applicants who hold a related master's degree. Preferred skill requirements include expertise in C/C++ and/or Matlab programming, good mathematical background, and knowledge/experience of nonlinear waveguide optics, optical signal processing and optical measurements.

For informal enquiries about this and other opportunities within the Photonics Research Group, please contact Dr Sonia Boscolo (Telephone: +44 (0)121 204 3495 or Email: s.a.boscolo@aston.ac.uk)

Application forms, reference forms and details of entry requirements, including English language are available at <http://www1.aston.ac.uk/eas/research/prospective-research-students/how-to-apply/>

Applications should be submitted using the University's online application form if possible and should include at least two academic references and a full CV. Paper applications should be emailed to seasres@aston.ac.uk or posted to:

Helen
Yard
Research Admissions
School of Engineering and Applied Science
Aston
University
Aston Triangle
Birmingham B4
7ET

UK

Closing Date: 31 January 2012 (or until the position is filled)