

**LECTURER/ SENIOR LECTURER IN INNOVATIVE LASER AND PHOTONIC
SYSTEMS FOR LOW CARBON TECHNOLOGIES
(JA/25/2010)**

DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING

John Anderson Research Leadership Scheme (JARL2)

The vision of the University of Strathclyde is bold and transformational, placing it among the leading international technological universities. This promises an institution that is vibrant and dynamic and internationally focused, with cutting-edge, multi-disciplinary research of global relevance. The John Anderson Research Leadership scheme is focused on recruiting the best academic talent to enhance both research intensity and leadership in areas of strategic importance.

The Centre for Microsystems and Photonics (CMP) (<http://www.strath.ac.uk/eee/research/cmp/>) within the Department of Electronic and Electrical Engineering undertakes research in the areas of photonics for sensing and instrumentation, MEMS and microsystems, and in passive and active fibre optic devices including low and high power fibre lasers and their applications. The Centre has an international reputation for research excellence, and operates within the environment of one of the largest EEE Departments in the UK. CMP has received substantial funding and support from the Department, Faculty and University to invest in high-quality personnel and infrastructure, and is now seeking to make an academic appointment in the area of innovative laser and photonic systems to support low carbon technologies.

The focus of the post-holder's research will be on the themes of (i) advanced laser technologies and systems and (ii) photonic measurement and instrumentation. The emphasis will be on developing and applying these technologies in a wide range of engineering systems designed to help curb carbon emissions and support renewable generation. The research to be developed will cover topics such as the application of compact, tunable laser sources (e.g. external cavity lasers, long wavelength VCSELs, QCLs, fibre and other solid state laser systems) for optical spectroscopy; MEMS lasers; optical systems for local or remote monitoring of emissions (e.g. gas concentration measurements using laser spectroscopy for process/efficiency control in fuels cells and in CO₂ sequestration; gas concentration measurements to optimise combustion processes in harsh environments such as in gas turbine engines and gas burning power generation equipment); photoacoustic trace gas detection technologies; laser/optical sensing and instrumentation systems for condition monitoring of structures used in energy generation.

The post will also include teaching, supervision and administration as specified by the Head of Department. Applicants will have a good honours degree in a relevant branch of Engineering or Science and a PhD or recent post-doctoral experience in laser and photonics based sensing and instrumentation.

**Please refer to the website for further details of the scheme and the exciting posts available:
www.flashesofinspiration.com**

**For an application pack visit <http://vacancies.strath.ac.uk> or contact Human Resources,
University of Strathclyde, Glasgow G1 1XQ. Tel. 0141 553 4133, quoting ref: JA/25/2010**

Closing date: 21 April 2010

We value diversity and welcome applications from all sections of the community