

Imperial College London
Department of Chemical Engineering
Centre for Process Systems Engineering

Research Associate

Salary range £31,300 to £39,920 per annum

Fixed-term appointment for 21 months

A post-doctoral position is available within the Centre for Process Systems Engineering (www.cpse.imperial.ac.uk) on an EPSRC-sponsored project on Global analysis Sensitivity. The postholder will work on the development of new complexity reduction, meta modelling and optimal experimental design framework based on global sensitivity analysis techniques and global optimization .

The approach builds on research at the CPSE which has developed techniques based on global sensitivity analysis using Sobol' indices and meta modelling methods based on high dimensional model representation. These techniques can be used for model analysis, complexity reduction, meta modelling parameter estimation and optimization. The project will involve the development of mathematical and computational techniques coupled to models in different formats.

The project supervisors are Professor Nilay Shah and Dr Cleo Kontoravdi. Project will be co-ordinated by a Research Fellow, Dr Sergei Kucherenko.

We are looking for candidates with experience in one or more of the following areas:

- Process systems engineering, especially scientific computing and analysis and modelling and optimization of complex systems
- Monte Carlo and Quasi Monte Carlo modelling and various sampling techniques
- Sensitivity analysis, meta modeling, global optimization, statistics, experimental design

The appointee should hold a PhD degree in a relevant discipline, with particular emphasis on modelling and numerical methods in one or more of the areas above. A large component of the work will be computational and would require a good knowledge of C++, or C and MATLAB.

The post will be tenable for up to twenty one months. .Our preferred method of application is online via our website <http://www3.imperial.ac.uk/employment> (please select "Job Search" then enter the job title or vacancy reference number EN20120043SKG into "Keywords"). Please complete and upload an application form as directed. Should you have any queries, please contact Senait Selassie (s.selassie) or Dr Sergei Kucherenko (s.kucherenko@imperial.ac.uk)

Closing date: 3 April 2012

Committed to equality and valuing diversity. We are also an Athena Bronze SWAN Award winner, a Stonewall Diversity Champion and a Stonewall Top 100 Employer 2011.