



## Research Associate in Control

**Ref: 1636794**

**Starting Salary £34,056 per annum**

**(incl. London Allowance of £2980 per annum)**

We wish to recruit a Research Associate from April 2017 or as soon as possible thereafter to join a project that has been funded as part of a Newton Institutional Links Award and is joint with the National Polytechnic Institute in Mexico City. The project will design automatic control strategies to optimize a laboratory scale ozonation system.

Many toxic organic compounds contaminate soils and aquifers. In particular, the petroleum industry has been responsible for many oil leakages into soil. These contaminants can migrate into the subjacent aquifer. This mass transfer process may adversely affect different ecosystems as well as the animal life cycle. In critical conditions, human health can be affected. This is a particular problem in Mexico, which is the tenth biggest oil producer in the world. There are many soil treatments which focus on contaminant elimination from the solid phase. The problem of the treatment of ground and residual water, as well as contaminated soil with a high content of volatile organic compounds (VOCs) remains. This project will apply robust control strategies to effect integral treatment of contaminated sites that addresses the solid phase as well as elimination of contaminants from the aquifer and any VOCs.

The Research Associate will be responsible for investigating possible ways to estimate unmeasurable states in the system to inform the ozonation process as well as for controller design. A system model will be provided by project collaborators who will also conduct the experimental trials.

The post is available for a period of 9 months.

### **Key Requirements**

Applicants should have (or be about to submit) a PhD in the area of control engineering. Proven capability in mathematical modelling, systems analysis and simulation is required. Experience in the design of nonlinear controllers and/or observers is desirable.

Appointment at Grade 7 is dependent upon having been awarded a PhD, if this is not the case, initial appointment will be at Research Assistant Grade 6B (£29,809 - £31,432 per annum) with payment at Grade 7 being backdated to the date of final submission of the PhD thesis including corrections.

## **HOW TO APPLY**

Please apply online via the following link:

**[www.ucl.ac.uk/hr/jobs](http://www.ucl.ac.uk/hr/jobs) and search for reference 1636794**

If you experience any problems please contact Vicky Coombes at [v.coombes@ucl.ac.uk](mailto:v.coombes@ucl.ac.uk) quoting Job reference **1636794**

Interested applicants are encouraged to make Informal enquiries about the post to Professor Sarah Spurgeon

[s.spurgeon@ucl.ac.uk](mailto:s.spurgeon@ucl.ac.uk)

**Please do not send CV's direct.**

**Closing Date: 18<sup>th</sup> April 2017**

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