



**UNIVERSITY OF LEEDS**

## **CANDIDATE BRIEF**

**Research Fellow in Smart Energy Systems and Control Engineering,  
Faculty of Engineering & Physical Sciences**



**Salary: Grade 7 (£33,797 – £40,322 p.a.)**

**Reference: EPSEE1020**

**Closing date: 01 May 2020**

**Fixed-term until 30 November 2020**

**We will consider flexible working arrangements**

# **Research Fellow in Smart Energy Systems and Control Engineering, School of Electronics and Electrical Engineering.**

**Do you know how much energy is used in making a loaf of bread? Do you know how to make dumb machines smart to save energy in manufacturing?**

Joining an exciting consortium to address the technical, operational and economic challenges in optimal energy management in industry, you will be conducting research, innovation and associated activities in the area of advanced control techniques for energy saving as part of the EPSRC funded 'OPTEMIN' project. The work is based on an award-winning technology to offer low-cost component-level energy monitoring, providing insights that can lead to reduced energy costs and optimised manufacturing processes (<http://www.pointenergy.org/>)

Holding a PhD (or close to completion) in Electrical & Electronic Engineering, Control Engineering, or a closely allied discipline, you will have a strong background in advanced control and optimization with applications to manufacturing or other energy intensive processes.

## **What does the role entail?**

As a Research Fellow, your main duties will include:

- Developing advanced control algorithms, software and hardware; planning and executing experimental work in the laboratory and on-site in the area of advanced control techniques for energy saving within the multi-disciplinary team comprising three universities and industrial partners;
- Liaising with academics, project supervisors/partners and research students in the project teams across the partner universities in the 'OPTEMIN' project, in order to carry out, co-ordinate and manage the planned work-packages;
- Travelling to meet academic and industrial partners, collecting and analysing information related to technology innovation and knowledge transfer in this project and report accordingly;
- Generating and pursuing independent and original research ideas in the area of control technologies for smart energy management;





- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Communicating or presenting research results through publication or other recognised forms of output;
- Preparing papers for publication in leading international journals and independently writing reports;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

## What will you bring to the role?

As a Research Fellow, you will have:

- A PhD (or close to completion) in Electrical & Electronic Engineering, Control Engineering, or a closely allied discipline;
- A strong background in advanced control and optimization with applications to manufacturing or other energy intensive processes;
- A proven track record of peer-reviewed publications in high impact factor journals;
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure;
- Excellent written and verbal communication skills including presentation skills;
- Proven ability to manage competing demands effectively, responsibly and without close support;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.



You may also have:

- Hardware and software development experience;
- Research experience in computational intelligence and big data analytics.

## How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised [closing date](#).

## Contact information

To explore the post further or for any queries you may have, please contact:

**[Kang Li](#), Professor of Smart Energy Systems**

Email: [K.Li1@leeds.ac.uk](mailto:K.Li1@leeds.ac.uk)

## Additional information

### Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering & Physical Sciences](#) and the [School of Electronic and Electrical Engineering](#).

### A diverse workforce

The Schools in the Faculty of Engineering & Physical Sciences are proud to have been awarded the Athena SWAN [Bronze or Silver](#) Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

### Working at Leeds

Find out more about the benefits of working at the University and what it's like to live and work in the Leeds area on our [Working at Leeds](#) information page.



### **Candidates with disabilities**

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at [disclosure@leeds.ac.uk](mailto:disclosure@leeds.ac.uk).

## **Criminal record information**

### **Rehabilitation of Offenders Act 1974**

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

