Job Description

Role Title: Smart Energy Research Assistant

School / Dept: School of Science, Engineering and
                 Environment

Reference: GRP66

Grade: Grade 6

Full or Part time: Full time

Hours: 36.25

Reports to: Smart Meters Smart Homes Lab Lead

Overview

The University of Salford has a rich history stretching back to 1896 and today is a leading provider of Higher Education based over a Main Campus, one and a half miles from Manchester. Currently undergoing a transformational change affecting every area of university life, Salford is positioning itself at the leading edge of higher education institutions in this country.

Energy House Laboratories is a large research and innovation unit within the University of Salford's School of Science, Engineering and Environment. The group focuses on the delivery of net zero and low energy buildings and products, and on a wide range of digital energy services and applications for the domestic sector. It has a complex multi-project portfolio that covers both research and innovation activities, many with commercial partners. The group is made up of four labs, Energy House 1, Energy House 2.0, the Smart Meters > Smart Homes Lab (SMSHL) and the Thermal Measurement Lab. The group is high profile and is currently undergoing a growth phase due to the high interest from industry and policy makers.

The individual will be managed overall by the SMSHL lead and will primarily support the lab's projects however, they will be flexible and support projects of the other labs including external field work as required. We are interested in individuals with knowledge and experience of IoT and control systems' hardware and software configuration who are willing to apply their knowledge and skills on digital energy applications, building energy performance and other related areas with a focus on the domestic sector. They will need to have good technical, analytical and project management skills, as well as being able to work in a team to meet tight deadlines. They will need excellent communication skills and be committed to professional development, as well as being able to learn new skills as projects demand. This role is part of a growth plan for Energy House Labs as a growing area with an emerging international reputation.

Role Purpose

The Smart Energy Research Assistant will contribute to the business and research support element of projects.

Principal Duties & Responsibilities

Data Analysis:

- Assists with collecting data in relation to research and commercial projects undertaken by the lab.

- Supports with the data analysis for research and commercial projects undertaken by the lab. Selecting the appropriate methods, tools, and techniques.

Research:

- Contribute to the labs research activity, under the supervision of the PI and other co-Investigators

- Participate in ongoing research activities in collaboration with the PI, co-Is and other Undertake individual or collaborative research projects of relevance to the School/University member of the research team.

- Contribute to publications in both at peer-reviewed journals and conferences and to external organisations such as industry, public sector, charity and local community groups.

Project Management:

- Ensure that all contractual, legal and financial processes are adhered to with the support of internal support services.

- Undertake high quality research, analysis and reporting in support of project delivery

- Contribute to the wider commercial and research activities of Energy House Labs

- Proactively contribute to develop and improve project management capability, standards, methods, processes that will improve performance and efficiency of the unit as a whole.

- Support the SMSHL lead in the management and operation across the lab's facilities.

Relationship Management:

- Provide informed feedback regarding project delivery to all relevant stakeholders

- Captures and disseminates technical and business information to external stakeholders and the wider Energy House Labs team

- Work with the SMSHL lead to ensure research and business information is disseminated to external stakeholders and the winder Energy House Labs team.

- Proactively participate in furthering your professional development, maintaining growth in professional skills and knowledge deemed essential to the role.

- To act in line with University health and safety guidance and policy. Been accountable for their own health and safety and that of our colleagues.

- Perform any other duties required by one of the Energy House Labs heads of lab or the Director of Energy House Labs from time to time.

- Promote equality and diversity for students and staff and sustain an inclusive and supportive study and work environment in accordance with university policy.

This role detail is a guide to the work you will initially be required to undertake. It may be changed from time to time to meet changing circumstances. It does not form part of your Contract of Employment.

Person specification follows on next page

University of Salford MANCHESTER

Person Specification

The successful candidate should demonstrate the following, which are 'Essential' (E) or 'Desirable' (D), and will be assessed by Application Form (A), Interview (I), Presentation (P), or Test (T), as indicated.

Qualifications

1. Undergraduate degree in a STEM subject involving IoT and control systems' hardware and software configuration (E) (A)

2. Postgraduate qualification in a related discipline or relevant previous experience (E) (A)

Background and Experience

3. Data acquisition systems, data accessing, IoT sensors and systems, smart metering and controllers (E) (A) (I) (P)

4. Basic data analysis and visualisation skills (E) (A) (I) (P)

5. Experience of working in an educational / research setting (D) (A) (I) (P)

6. Experience of working with industry or other external stakeholders (D) (A) (I) (P)

Knowledge

7. Home energy management systems (E) (A) (I) (P)

8. Good practice and the ability to drive excellence and quality in all areas of responsibility (E) (A) (I)

9. Domestic: renewables, energy storage systems, space heating, EV charging, heating, ventilation and air conditioning (HVAC), wet and cold appliances in terms of system configuration and control (D) (A) (I) (P)

10. Grid and domestic systems' simulator and emulator tools (D) (A) (I) (P)

Skills and Competencies

11. Excellent and proactive communication, presentation skills, negotiating, and relationship building skills (E) (A) (I)

12. Good project management skills (E) (A) (I)

13. A commitment to learning new skills/techniques/technologies and a to developing knowledge to keep abreast of industry standards (E) (A) (I)

14. A proved track record of problem solving with the ability to think quickly and innovatively and to react to changing demands/requirements (E) (A) (I)