ROLE PROFILE

Job Title: Smart Energy Engineer - KTP Associate
Theme: Smart controlled energy in commercial buildings
School/Department: Faculty of Engineering & Siemens plc
Job Family and Level: Knowledge Transfer Partnership (KTP)
Contract Status: This post will be offered on a fixed-term contract for 24 months
Hours of Work: Full-time
Location: Siemens plc, Lenton Lane, Nottingham, NG7 2NR

1. Job purpose:
To design, develop and implement an Energy Visualisation and Analytics platform. The system will holistically collect energy data to inform a central control algorithm powered by advanced machine learning to optimise the energy flows between buildings.

2. Duties and responsibilities:
There is a full two year project plan detailing the work to be undertaken throughout the KTP. The key stages of the project are:
- Familiarisation with Siemens' team, products, services and markets
- Review existing energy performance and monitoring laboratory platform at UoN
- Training in smart load sensing and occupancy devices for real time control
- Develop a method for the location and installation of sensing devices in a variety of building and generation device types and environments
- Establish commercially viable system architecture interfacing BEMS, energy loads and occupancy including generation device management
- Implementation of the technology in a fully operational commercial building and generation device
- Dissemination of knowledge to the wider business and industry
- Translation of methodology from office building to other public buildings
- Final report

3. Special Conditions:
Whilst the position will be based at Siemens Managed Services in Nottingham, the project will require you to spend periods of time working at other Siemens offices as well as the University of Nottingham, using the labs and facilities for testing. You should, therefore, be able to travel and be prepared to stay overnight if required. You will also work with the company’s customers, suppliers and partners, which may necessitate travel. There may also be opportunities to attend international conferences.

There is a budget available for personal and professional training to support and develop your skillset.
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<th>Knowledge, Skills, Qualifications &amp; Experience</th>
<th>Essential</th>
<th>Desirable</th>
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| **Qualifications/ Education**                 | • Hold a degree in a science/engineering discipline (1)  
• Hold or be close to completion of a PhD in related fields of computer science and sustainable energy systems/technologies (1) | • Hold a PhD in related fields of computer science and sustainable energy systems/technologies (1) |
| **Expertise and Experience**                  | • Have experience of independent working, with a positive attitude towards collaboration and interdisciplinary working (1,2,3) | • Have relevant industry experience (including work placements) in an engineering, science, low carbon / energy environment (1,3) |
| **General Skills and Abilities**              | • Have an excellent command of the English language with written and verbal communication that is clear and easy to understand (1,3)  
• Be able to clearly communicate complex information (1,3)  
• Be able to build strong alliances with colleagues and stakeholders and engage effectively with personnel in a wide range of roles, including engineering and production staff (3)  
• Be self-starting and pro-active, and have the ability to work in a team to meet deadlines and to prioritise tasks (3)  
• Be enthusiastic and self-motivated with the drive to embed new knowledge and take full ownership of the project and the results. (3)  
• Have the ability to plan a project, execute the plan and make adjustments according to delays and technical issues (1,3) | • Have an awareness and understanding of commercial drivers (1,3)  
• Have the ability to undertake multidisciplinary research and translate understanding in the subject area for commercial delivery. (1,3) |
| **Technical Skills and Knowledge**            | • Have exposure to IDA ICE building energy simulation software (1,3) | |
| **Training**                                  | • Have a commitment to continuing professional development. (1,3)  
• Be willing to undertake appropriate further training and to adopt new procedures as and when required (1,3) | |
| **Other**                                     | • Be willing to travel (3)  
• Be able to make suitable arrangements for personal business travel (3)  
• Have a commitment to observing Equality & Diversity policies at all times (1,3)  
• Be committed to maintain confidentiality at all times (3) | |
| **Additional Information**                    | |
| Stages in Assessment (shown in brackets):    | 1 = Application form and CV,  
2 = Work-based test / presentation and questions,  
3 = Interview. |

![European Union](image1)  
![Siemens](image2)  
![University of Nottingham](image3)
Due to the requirements of the UK Border and Immigration Agency, applicants who are not UK or EEA nationals and whose immigration status entitles them to work without restriction in the UK will be considered on an equal basis with UK and EEA nationals. Other non-UK or non-EEA nationals whose employment will require permission to work subject to a resident labour market test may only be considered if there are no suitable UK or EEA national candidates for the post. Please visit [http://www.ukba.homeoffice.gov.uk/](http://www.ukba.homeoffice.gov.uk/) for more information.

The University of Nottingham strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women's careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.