

Job Description – Research Assistant/Associate (dependent on experience)

Full Time – 6 Month FTC

AC1 – AC2

Walton Hall, Milton Keynes

The Role

The Research Assistant/Associate role is funded by AND technology research (www.andtr.com) The overall aim of this project is to develop novel technologies to analyse energy usage data and improve energy efficiency of small and medium companies.

This post has a focus on developing novel methods for supervised and semi-supervised learning of different appliances and zones from aggregated measurements.

Key responsibilities

- To familiarise with the data and run simulations using different data-sets that are already in place
- To consider different approaches for energy disaggregation for low resolution data
- To develop and implement algorithms for semi-supervised energy disaggregation
- To write papers for publication in high quality journals and conferences
- To manage a smooth collaboration with industrial partners and stakeholders

Skills and Experience

- PhD or working towards a PhD in a relevant area
- Evidence of high-quality research in a relevant area
- Working knowledge of Python
- Familiarity with handling time-series
- Able to draft technical reports and journal papers
- Excellent oral and written communication skills

About the Unit

KMi

The **Knowledge Media Institute (KMi)** is a multidisciplinary corporate R&D lab for the Open University, committed to world class research activity at the forefront of data science and new media technology. KMi has extensive experience in data and web science and has, for almost 25 years, deployed research results to address real world scenarios that have led to innovation in education and commercial settings. KMi currently consists of around 80 researchers, has published more than 1000 scientific papers since its creation, and has been involved in over 100 EU and national projects, including FP7 ROBUST, EPSRC ReelLives, MK:Smart, and many others. The research conducted in the context of these projects covers a diverse set of analysis for online communities, personal need and event detection, and monitoring and predicting behaviour based on large data sets.

STEM

Faculty of Science, Technology, Engineering & Mathematics

The Faculty of Science, Technology, Engineering and Mathematics (STEM) is comprised:

- School of Computing & Communications
- School of Environment, Earth & Ecosystem Sciences
- School of Engineering & Innovation
- School of Life, Health & Chemical Sciences
- School of Mathematics & Statistics
- School of Physical Sciences
- Knowledge Media Institute
- Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration

“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”

The Faculty of STEM consists of 2500 staff including 1,800 Associate Lecturers. The Faculty delivers over 185 modules across undergraduate and postgraduate curriculum, supporting nearly 19,000 students (full time equivalents) which is 29% of the OU total.

The Faculty generates more research income (circa £17M) than any other Faculty in the University, supported by a comprehensive laboratory infrastructure.

We are proud of our distinctive values and capabilities underpinning our aspiration:

We are inclusive:

- We transform people’s lives, ensuring STEM education is openly accessible to many thousands of students from diverse backgrounds – our students express high satisfaction with their study experience.

- We engage the public in exciting citizen science and engineering, including through free open educational resources, multi-platform broadcasting, outreach to inspire the next generation and with programmes to encourage more women into STEM.

We are highly innovative:

- We are at the forefront of innovative developments in teaching practical science and engineering at a distance, through simulated and remote access laboratories and practical experimentation.
- Our high quality teaching and curriculum are informed by world-leading research, strong links with professional bodies and communities of practitioners, as well as by scholarship focused on continuously improving our STEM pedagogy.

We deliver significant social and economic impact:

- We provide STEM higher education at a scale and reach unsurpassed in the UK, with a sizeable international reach and further growth potential.
- We inject transferable STEM skills and knowledge direct into the workplace for immediate employee and employer benefit, as students combine study while working.
- The employability value of our courses is underpinned by accreditation from leading STEM Professional Bodies and Learned Societies, as well as partnerships and sponsorship with leading employers.
- Our high quality, applied and academically relevant teaching and research addresses real-world issues, delivering impact for industry and society, including addressing pressing STEM skill-shortages across the UK.