Job Description – Research Associate

Full-Time
24 Month fixed term contract
AC2
Walton Hall, Milton Keynes

About the role

The Research Associate role is funded by the European Commission via a large collaborative project including 6 leading industrial manufacturers based in the UK, France, Spain and Sweden and 2 universities based in the UK. The overall project is to develop novel technologies to acquire big data from manufacturing, and then using the data, to optimize the manufacturing for fabrication of advanced material grades.

This post has a focus on developing a novel method to control crystallization of amorphous materials, in order to control heat flux in the processing of these materials.

Key responsibilities

• To carry out experiments to discover the relationship between crystal fraction of the desirable materials and processing conditions
• To characterize the materials microstructure and properties using various facilities such as XRD and SEM
• To draft the technical reports and present to the project partners and European Commission
• To write papers for publication in high quality international journals and to present to international conferences
• To manage a smooth collaboration with both internal and external partners and stakeholders

Skills and experience

• A PhD in a relevant subject
• Evidence of high-quality experimental research in a relevant area
• Good knowledge in materials processing and characterization
• Able to draft technical reports and journal papers
• Excellent oral and written communication skills
• Able to travel to collaborative partners’ sites
About the Unit

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.