

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

Full Time – 24Month FTC - the length of the contract may be affected by the agreed salary scale due to external project funding limits

AC1 – AC2

Walton Hall, Milton Keynes

The Role

The Research Assistant/Associate role is externally funded by UKRI under the UK Government's Horizon Europe Guarantee Scheme in the context of the ORBIS Project on "Augmenting participation, co-creation, trust and transparency in Deliberative Democracy at all scale". The overall aim of this project is to develop novel technologies to enable healthier, as in more transparent, fair, and inclusive participation of citizens in democratic processes. To do that ORBIS will devise novel, user-friendly and AI-boosted digital democracy platforms that augments deliberative participation. This will include novel argument mining, aggregation and visualization services for large-scale participation and online discussion processes and novel ML/NLP and generative AI solutions for actionable knowledge discovery and informed decision/policy making. The project will focus not only on the design and development of such technologies but on developing lessons learnt from the application of these foreseen innovations in real world settings of different scale.

Key responsibilities

- To familiarise with the data and codebases of technologies that are already in place in the ORBIS consortium.
- To consider different approaches for large scale aggregation, structuring and analysis of online discussion data
- To develop and implement algorithms for argument mining and discourse analysis.
- To develop and implement new online deliberation technologies and integrate them with other ORBIS tools.
- To write papers for publication in high quality journals and conferences
- To manage a smooth collaboration with our European partners and stakeholders in the ORBIS consortium (which include, industry, NGO, local government organisations across Europe)

Skills and Experience

Essentials

- Evidence of high-quality research and development in a relevant area
- A strong record of research and/or knowledge exchange that is commensurate to the position.
- Working knowledge of Web Development stack (e.g NoSql, Typescript, NodeJS, HTML5/CSS3/JS, Python, Firebase, Angular 2+)
- Able to draft technical reports and contributing to teamwork.
- Familiarity with handling deliverable and shortly paced deadlines.

Desirable

- PhD or working towards a PhD in a relevant area
- Excellent oral and written communication skills
- Able to draft and contribute to conference/journal papers.
- Experience in applying and developing NLP, Large language Models and ML applications.
- Development skills applied to a variety of research domains and technologies.

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 ONR Project Bcause, FP7 CATALYST, EPSRC EDV - Election Debate Visualisation Project, MK:Smart, and many others. The research conducted under these projects covers a wide range of issues related to the use of technology to democratize our society by improving citizen engagement in political and decision-making processes. Our focus is on the development of large-scale ideation and deliberation systems, enabling many voices to contribute to effective, impartial and democratic conversations that lead to intelligent group behavior and social change.

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 skillshortages across the UK.