

Job Related Information

This document includes information about the role for which you are applying and the information you will need to provide with your application.

1. Role Details

Vacancy reference	14172
Job title:	Research Assistant / Associate
Reports to:	Professor of Knowledge Engineering
Salary:	Ranging from £29,799 to £38,833
Terms and conditions:	Full time Research Staff
Grade	AC1 / AC2
Duration of post:	Temporary contract until November 2018
Working hours:	Full time, Monday to Friday
Location:	Milton Keynes
Closing date:	8 January 2018 at 5pm
Type of application form accepted:	Short Application with CV (plus covering letter)
Number of referees required:	Three
Unit recruitment contact:	Ortenz Rose

2. Summary of duties

Internet technologies enable users to explore various educational resources online for formal and informal learning, and, at the same time to collect information about the use of these resources. By analysing interactions with the online learning environment, it is possible to assess the learners' performance and trajectories. This will improve the engagement of learners with the platforms and resources that best meet their learning objectives.

The AFEL project (**A**nalytics **F**or **E**veryday **L**earning) is an innovative EU funded research project with 5 partners from the UK, Germany, Spain, and Austria. Its goal is to identify the features that characterise learning activities within social contexts that traverse the Web and use these features to assist the user in the improvement of their knowledge and skills. The project is heavily user-centric, it draws the majority of its data from the learners' experience with platforms and learning resources. The project runs until November 2018.

We are currently looking for a Research Assistant or a Research Associate to work on this project.

The appointment will be made on the Academic Grade AC1 or AC2 salary scales depending on qualifications and experience.

JOB DESCRIPTION

You will work as part of a team of European researchers on designing, implementing and deploying techniques to extract large quantities of data from Web portals, social media and user interactions and enhance them to detect traces of everyday informal learning on online systems and social media. Your responsibilities will include:

- designing and implementing crawling strategies to mine Web platforms for usage data and metadata on their resources;
- developing novel ways of capturing and anonymising user-generated data from learning platforms, social media and personal systems and devices (e.g. Web browser extensions and Facebook apps);
- mining third-party datasets to detect features that are relevant for learning;
- developing scalable solutions to semantically integrate diverse large-scale datasets in real time;
- managing the public release cycle of large-scale datasets for learning analytics;
- designing modular ontologies of learning;
- managing open source software projects;
- leading and contributing to the writing of EU project deliverables, and reporting to the EC on-site;
- contributing to the writing of research papers.

3. Person specification

Requirements (E = Essential/ D = Desirable)

Education, qualifications and training

(E) A Master in Computer Science or related field, or equivalent experience.

(E) Appointment as a Research Associate requires a PhD in Computer Science or related field or 2+ years equivalent in quality of achievement.

Knowledge, work and other relevant experience

Essential:	<ul style="list-style-type: none">• Experience with analysis and filtering of big noisy data and with sensitivity analysis of predictive models for classification problems;• Knowledge of Java server technology;• Ability to interface with social media APIs;• Ability to understand tasks needs and independently define solvable subtasks;• Ability to design and implement robust software solutions;• Excellent programming skills in Javascript, Python, Java, and R;• Ability to work in a team, experience with code sharing;• Ability to write technical reports.
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Desirable:	<ul style="list-style-type: none">• PHP programming;• Experience in user interface design;• Knowledge of semantic data representation;• Knowledge of machine learning algorithms.
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Personal abilities and qualities

Essential:	<ul style="list-style-type: none">• Ability to quickly demonstrate understanding of the project aims and specific task as requested;• Ability to write technical reports and contribute to research papers;• Ability to pro-actively seek solutions to complex problems;• Fluency in English;• Team player;• Hard worker;• Ability to work to challenging targets.
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Desirable:	n/a
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4. Role specific requirements e.g. Shift working

n/a

5. About the unit/department

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 (distinct research 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 700 staff and 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.

The Knowledge Media Institute (KMi) of the UK’s Open University is a highly successful interdisciplinary research centre founded at The Open University in 1995, and located in attractive premises at The Open University’s main campus in Milton Keynes, UK. We offer a stimulating environment, widely acknowledged to be at the leading edge of research and development, particularly in Semantic Technologies, Human Computer Interaction, New Media and Information Retrieval. The style, impact and content of our work can be seen at <http://kmi.open.ac.uk/>

6. How to obtain more information about the role or application process

If you would like to discuss the particulars of this role before making an application please contact Professor Zdenek Zdrahal on +44 (0)1908 654512 or email: zdenek.zdrahal@open.ac.uk

If you have any questions regarding the application process please contact Ortenz Rose on +44 (0)1908 654774 or email: ortenz.rose@open.ac.uk

7. The application process and where to send completed applications

Your application should contain:	<p>a) A completed short application for employment form; b) An up-to-date CV; c) Covering letter.</p> <p>Please ensure you complete all relevant sections of the application form. You are required to include a curriculum vitae; however any CVs submitted <u>without a completed application for employment form</u> will <u>not be accepted</u>.</p> <p>You are also asked to provide a covering letter describing how your skills make you a suitable candidate for the post.</p>
Please ensure that your application reaches the University by:	8 January 2018 at 5pm
E-mail your application to:	kmi-recruitment@open.ac.uk
Or post it to Name/Job title:	Ortenz Rose / KMi Senior Co-ordinator – Staffing & Recruitment
Department/Unit:	The Knowledge Media Institute (STEM)
Address:	The Open University, Walton Hall, MILTON KEYNES. Buck MK7 6AA

8. Selection process and date of interview

The interview panel will be chaired by:	Professor Zdenek Zdrahal - Professor of Knowledge Engineering
The other members of the interview panel will be:	To be advised
The interviews will take place on:	To be advised
The selection process for this post will include:	<ul style="list-style-type: none"> • A review of applications by the interview panel; • A formal interview.



We will let you know as soon as possible after the closing date whether you have been shortlisted for interview. Further details on the selection process will also be sent to shortlisted candidates.

Applications received after the closing date will not be accepted.