

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	15344
Job title:	Research Assistant / Associate
Reports to:	Professor of Computer Science
Salary:	Ranging from £30,395 to £39,609
Terms and conditions:	Full time Research Staff
Grade	AC1 / AC2
Duration of post:	Temporary contract until April 2020
Working hours:	Full time, Monday to Friday
Location:	Open University's main campus, Milton Keynes
Closing date:	13 December 2018 at 5pm
Type of application form accepted:	Short or Accessible version (with CV plus covering letter)
Number of referees required:	Three
Unit recruitment contact:	Ortenz Rose



2. Summary of duties

The key objective of the Up2U project is to bridge the gap between secondary schools and higher education and research by better integrating formal and informal learning scenarios and adapting both the technology and the methodology that students will most likely be facing in universities.

The project will be focusing on the context of secondary schools, often referred to as high schools, which provide secondary education between the ages of 11 and 19 depending on the country, after primary school and before higher education. The learning context from the perspective of the students is the intersection of formal and informal spaces, a dynamic hybrid learning environment where synchronous activities meet in both virtual and real dimensions. For this, we propose to develop an innovative Up to University (Up2U) ecosystem – based on proven experiences in higher education and big research – that facilitates open, more effective and efficient co-design, co-creation, and use of digital content, tools and services adapted for personalized learning and teaching of high school students preparing for university. We will address project based learning and peer-to-peer learning scenarios.

We strongly believe that all the tools and services the project is going to use and/or make available (i.e. incorporate, design, develop and test) must be sustainable after the lifetime of the project. Therefore, the project is going to develop business plans and investigate appropriate business models using the expertise of the Small Medium Enterprise and National Research and Education Network partners and their contacts with third-party business actors. Our plan is to make it easy for new schools to join the Up2U infrastructure and ecosystem that will form a federated market-place for the learning community.

We are currently looking for a Research Assistant or a Research Associate (depending on qualification) to work on this project. The appointment will be made on the Academic Grade 1 or 2 Salary Scales for Research Staff, ranging from £29,799 to £38,833 pa depending on qualifications and experience. Appointment as a Research Associate requires a PhD or three years equivalent in quality of achievement.

JOB DESCRIPTION

The work will target the development of the front-end user interface to Up2U for teachers and students, i.e., the Integrated Application Toolbox. This toolbox will be web portal-based where all the tools and applications will be accessible according to the project's actor-driven methodological approach. This approach will enable the definition of a personalized, dynamic learning path with social sharing and interactions (i.e. project based and peer-to-peer learning and assessment). Internally, the application toolbox will intermediate between the cloud-based service infrastructure and the tools managed inside.

The work will also involve research on Blockchain technology and its applications on education. Blockchain is most commonly known as the technology underpinning the Bitcoin cryptocurrency. In recent years, the open source code of the Bitcoin Blockchain has been taken and extended by many groups to expand its capabilities. Blockchain technology and smart contracts can be used in education in a variety of interesting and potentially revolutionary scenarios, such as enhancing standards for badging, certification and reputation on the Web with the use of the Blockchain as a trusted ledger.

We expect successful applicants to fit into our Computer Science REF profile depending on previous experience. The REF is a UK research assessment exercise whereby research departments are evaluated for their research contribution through their publications, income generation and non-academic impact.

You will be working as part of a team of dynamic researchers in the field of knowledge technologies, Semantic Web and Web services within KMi, and in the context of a European project consortium. There will be the

opportunity to develop your research profile, to travel to give demos and presentations, and to write academic papers.

RELEVANT PUBLICATIONS AND FURTHER INFORMATION

All publications below are available from <http://kmi.open.ac.uk/publications/>

Mikroyannidis, A., Domingue, J., Pareit, D., Gerwen, J., Tranoris, C., Jourjon, G. and Marquez-Barja, J. (2016) Applying a methodology for the design, delivery and evaluation of learning resources for remote experimentation, IEEE Global Engineering Education Conference (EDUCON), Abu Dhabi, UAE, IEEE Education Society Publications <http://ict-forge.eu/wp-content/uploads/2013/11/EDUCON-2016-full-paper.pdf>

Mikroyannidis, A., Domingue, J., Maleshkova, M., Norton, B. and Simperl, E. (2014) Developing a Curriculum of Open Educational Resources for Linked Data, 10th annual OpenCourseWare Consortium Global Conference (OCWC), Ljubljana, Slovenia http://conference.ocwconsortium.org/2014/wp-content/uploads/2014/04/Paper_15-Curriculum.pdf

Third, A., Domingue, J., Bachler, M. and Quick, K. (2016) Blockchains and the Web Position Paper, A W3C Workshop on Distributed Ledgers on the Web, MIT Media Lab, Cambridge, Massachusetts <https://www.w3.org/2016/04/blockchain-workshop/interest/third.html>

Sharples, M. and Domingue, J. (2016) The Blockchain and Kudos: a Distributed System for Educational Record, Reputation and Reward, 11th European Conference on Technology Enhanced Learning, Lyon, France, Springer <http://oro.open.ac.uk/46663/>

USEFUL URLs

Open Blockchain - <http://blockchain.open.ac.uk>

FORGE: a project on the development of multi-platform open educational resources for online experimentation - <http://ict-forge.eu>

EUCLID: a project on creating open educational resources based on eBooks for Linked Data - <http://www.euclid-project.eu/>

FutureLearn - <http://www.futurelearn.com>

OpenLearn - <http://openlearn.open.ac.uk>

3. Person specification

Requirements (E = Essential/ D = Desirable)

Education, qualifications and training

- (E) A Master in Computer Science or related field, or 2+ years of Research & Development experience in IT.
- (E) Appointment as a Research Associate requires a PhD in Computer Science or related field or 3+ years equivalent in quality of achievement.

Knowledge, work and other relevant experience

Essential:	<ul style="list-style-type: none">• Strong software and Web development skills;• Familiarity with Learning Management Systems and MOOC platforms;• Experience in eLearning technologies and pedagogy.
Desirable:	<ul style="list-style-type: none">• Experience with PHP, Java and JavaScript;• Experience in the development of technology-enhanced learning applications and widgets for Learning Management Systems and other educational platforms;• Experience in the use of technology-enhanced learning standards and specifications, such as SCORM and IMS LTI;• Experience working in (higher) education.

Personal abilities and qualities

Essential:	<ul style="list-style-type: none">• Proven ability to fit into the OU's Computer Science REF profile (depending on level and experience: publications, supporting income generation and non-academic impact);• Ability to quickly demonstrate understanding of the project aims and specific tasks as requested;• Self-starter in providing solutions to meet project needs;• Ability to work in complex team relationships;• Excellent written and oral communication skills;• Work to challenging targets and deadlines;• Ability to handle constructive feedback.
Desirable:	n/a

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/>. Information on careers in KMi can be found at: <http://kmi.open.ac.uk/careers/>

“Our lab values diversity and is committed to equality of opportunity. We would particularly welcome applications from women, since women are, and have historically been, underrepresented on our academic staff.”

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 John Domingue on +44 (0)1908 653800 or email: john.domingue@open.ac.uk

If you have any questions regarding the application process please contact Ortenz Rose on +44 (0)1908 654774 or email: kmi-recruitment@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 detailing how your skills and experience make you a suitable candidate for the post.</p> <p>Please ensure you complete all relevant sections of the application form. Applications received without a covering letter <u>will not</u> be accepted.</p>
Please ensure that your application reaches the University by:	5pm, Thursday 13 December 2018
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:	Knowledge Media Institute (STEM)
Address:	The Open University, Berrill Building, Walton Hall, MILTON KEYNES. Bucks MK7 6AA

8. Selection process and date of interview

The interview panel will be chaired by:	Professor John Domingue
The other members of the interview panel will be:	Dr Allan Third Dr Alexander Mikroyannidis
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.

	<p>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.</p> <p>Applications received after the closing date will not be accepted.</p>
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