

# **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	12424
Job title:	Research Assistant / Associate
Reports to:	Professor of Knowledge Technologies
Salary:	Ranging from £28,982 – £35,609
Terms and conditions:	Full time Research Staff
Grade	AC1 / AC2
Duration of post:	Until 30 June 2017
Working hours:	37 hours per week (full time, Monday to Friday)
Location:	The Knowledge Media Institute at The Open University
Closing date:	23 June 2016
Type of application form accepted:	Standard / Accessible version (plus covering letter)
Number of referees required:	Three
Unit recruitment contact:	Ortenz Rose

### 2. Summary of duties

The appointment will be made on the Academic Grade 1 or Grade 2 Salary Scales for Research Staff, ranging from £28,982 to £35,609 pa depending on qualifications and experience.

#### JOB DESCRIPTION

You will work on Garden Monitor – <a href="http://kmi.open.ac.uk/technologies/name/garden-monitor">http://kmi.open.ac.uk/technologies/name/garden-monitor</a>, a mobile application for Android, which supports efficient water management by generating a customized calendar advising users on whether and when they may need to water their garden over the following ten days. The application is able to learn the specific behaviour of a garden and forecast its future condition by integrating data from weather forecasts, garden sensors, and personal and public weather stations. You will be part of a high-profile research team, working on the MK:Smart project - <a href="http://www.mksmart.org">http://www.mksmart.org</a>, under the supervision of Professor Enrico Motta.

#### Specific Tasks:

- Evaluating the Garden Monitor application with a variety of users;
- Managing a number of sensors to monitor garden conditions;
- Exploring different machine learning solutions to enhance the ability of Garden Monitor to forecast accurately the behaviour of a garden in terms of evapotranspiration;
- Applying transfer-learning techniques to shorten the cold start phase when learning the behaviour of a new garden;
- Developing a web interface for the Garden Monitor application.

#### RELEVANT PUBLICATIONS AND FURTHER INFORMATION

MK:Smart is a large collaborative initiative, partly funded by HEFCE (the Higher Education Funding Council for England) and led by The Open University, which is developing innovative solutions to support economic growth in Milton Keynes.

Central to the project is a state-of-the-art 'MK Data Hub', which supports the acquisition and management of vast amounts of data relevant to city systems from a variety of data sources. These include data about energy and water consumption, transport data, data acquired through satellite technology, social and economic datasets, and crowdsourced data from social media or specialised apps.

Building on the capability provided by the MK Data Hub, the project is developing innovative solutions in the areas of transport, energy and water management, tackling key demand issues. In addition to these technical solutions, MK:Smart also comprises ambitious education, business and community engagement activities. More details about the project can be found at <a href="http://www.mksmart.org">http://www.mksmart.org</a>.

### 3. Person specification

### Requirements (E = Essential/ D = Desirable)

#### **Education, qualifications and training**

A Master in Computer Science or related field, or equivalent experience. 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 • Experience with developing Android applications; **Essential:** • Experience with machine learning and data mining algorithms; • Excellent programming skills in Java and JavaScript; • Proficiency with Apache Server, MySQL and GNU/Linux; • Experience in the design and implementation of Web services and/or RESTful services. Desirable: Experience with developing iOS applications; • Knowledge of existing data standards, e.g. linked, open and semantic data. Personal abilities and qualities Ability to quickly demonstrate understanding of the project aims and specific tasks as **Essential:** requested; • Self-starter in providing solutions to meet project needs; • Excellent written and oral communication skills; Ability to 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

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 <a href="http://kmi.open.ac.uk/">http://kmi.open.ac.uk/</a>

### 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 Enrico Motta on +44 (0)1908 653506 or by email: <a href="mailto:enrico.motta@open.ac.uk">enrico.motta@open.ac.uk</a>, or Dr Francesco Osborne on +44 (0)1908 332948, or by email: <a href="mailto:francesco.osborne@open.ac.uk">francesco.osborne@open.ac.uk</a>

If you have any questions regarding the application process please contact Ortenz Rose on +44 (0)1908 654774 or by email: <a href="mailto:ortenz.rose@open.ac.uk">ortenz.rose@open.ac.uk</a>

# 7. The application process and where to send completed applications

Please ensure that your application reaches the University by:	23 June 2016
Post it to:	Ortenz Rose
Name/Job title:	Senior Co-ordinator - Staffing & Recruitment
Department/Unit:	The Knowledge Media Institute
Address:	The Open University, Walton Hall, MILTON KEYNES. Bucks
Post Code:	МК7 6АА
Or e-mail your application to:	kmi-recruitment@open.ac.uk

### 8. Selection process and date of interview

The interview panel will be chaired by:	Professor Enrico Motta		
The other members of the interview panel will be:	Dr Francesco Osborne  Dr Mathieu d'Aquin		
The interviews will take place on:	date TBA		
The selection process for this post will include	<ul> <li>a review of applications by the Chair and selected members of the interview panel.</li> <li>a) Please ensure you complete all relevant sections of the application form. You are encouraged to also include a curriculum vitae; however CVs submitted without a completed application for employment form will not be accepted.</li> <li>b) You are also asked to provide a covering letter describing how your skills make you a suitable candidate for the post.</li> </ul>		



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.