

School of Electronic Engineering and Computer Science

Postdoctoral Research Assistant (TWO Posts)

Applications are invited for **two** three-year Postdoctoral Research Assistant positions on the Leverhulme Trust project "Improved Understanding of Causal Models in Dynamic Decision-Making" that ultimately will lead to improved design and use of self-monitoring systems such as blood sugar monitors, home energy smart meters, and self-improvement mobile phone applications for health and life-style tracking. This is a collaborative project, led by Professor Norman Fenton of the School of Electronic Engineering and Computer Science, with co-investigators Dr Magda Osman (School of Biological and Chemical Sciences), Prof Martin Neil (School of Electronic Engineering and Computer Science) and Prof David Lagnado (Department of Experimental Psychology, University College London). The project exploits Fenton and Neil's expertise in causal modelling using Bayesian networks and Osman and Lagnado's expertise in cognitive decision making. One of the posts will be a computer scientist/mathematician and the other will be an experimental psychologist. Both posts will address the issue of a) how people act when interacting with a monitored system; b) how the monitored system works; and c) how people ought to rationally act when interacting with it.

The computer science post (supervised by Fenton and Neil) will be responsible for developing a causal Bayesian framework. This involves extending current approaches to Dynamic Bayesian Networks. The ideal candidate will have experience in Bayesian networks tools and programming. The candidate should have completed (or be close to having) a PhD in a relevant discipline (e.g. maths/computer science/cognitive science) before taking up the post.

The experimental psychology post (supervised by Osman and Lagnado) will focus on conducting simulated experiments in the laboratory to test and improve the causal modelling method and to generate a new dataset that advances our understanding of how users interact with devices. The responsibilities of the role involve designing, carrying out, and analyzing data from laboratory based experiments that are underpinned by a causal Bayesian framework. The ideal candidate will have significant experience in carrying out laboratory experiments on humans, causal Bayesian networks, and be familiar with matlab, and other statistical packages. The candidate should have completed a PhD in psychology/cognitive science before taking up the post.

Details about the respective research groups can be found at <http://rim.eecs.qmul.ac.uk/> and <http://www.sbc.s.qmul.ac.uk/about-us/researchdivisions/psychology/index.html>

Both posts are full time for 3 years starting 09 January 2017 or as soon as feasible after this date. The starting salary will be in the range of £35,672 - £39,745 per annum inclusive of London allowance. Benefits include 30 days annual leave, defined benefit pension scheme and interest-free season ticket loan. Candidates must be able to demonstrate their eligibility to work in the UK in accordance with the Immigration, Asylum and Nationality Act 2006. Where required this may include entry clearance or continued leave to remain under the Points Based Immigration Scheme.

Informal enquiries should be addressed to Prof Norman Fenton (n.fenton@qmul.ac.uk), Dr Magda Osman (m.osman@qmul.ac.uk) or Prof David Lagnado (d.lagnado@ucl.ac.uk).

To apply, please visit the Human Resources website on <http://www.jobs.qmul.ac.uk> and search for reference QMUL7185.

The closing date for applications is 6 November 2016. Interviews are expected to be held on 25 November 2016.

.Valuing Diversity & Committed to Equality