Towards Self-aware and Self-adaptive systems and processes

Applications are invited for a match-funded funded PhD studentship in the Faculty of Science and Technology, Bournemouth University and British Telecom (BT) Adastral park which is BT’s Global Research and Development Headquarters, beginning January 2016, located mainly BT Ipswich and working under the supervision of Dr Sofia Meacham.

In collaboration with British Telecom (BT), this project will investigate the design and development of self-aware and self-adaptive systems and processes.

BT’s research team has been working and has strong interests in autonomic (self-learning, self-configuring etc) modelling in different application scenarios that are ranging from networks to business processes. The application of autonomies in an operational context would consequently lead to the development of self-adapting networks, systems and processes which is becoming increasingly important and therefore part of BT’s strategic research objectives.

Therefore, the proposed project has the following objectives:

1. Requirements gathering and analysis for the design and development of autonomic systems and processes.
2. Developing of models for the above systems and processes.
3. Development of autonomic systems and processes.

The project will be mainly driven by the industrial partner’s requirements. BT will set specific application scenarios in the course of the project execution thus providing “real-world” case studies as well as dissemination of the project’s outcome.

This project aims at innovative and timely work compared to the recent advances of autonomic modelling and systems engineering. Self-adaptive systems are an important step towards the societal challenge of “smart environments with dynamic and adaptive configuration capabilities” (EU societal challenges).

Candidates for funded PhD studentship must demonstrate outstanding qualities and be motivated to complete a PhD in 3 years.

All candidates must satisfy the University’s minimum doctoral entry criteria for studentships of an honours degree at Upper Second Class (2.1) and/or an appropriate Master's degree. An IELTS (Academic) score of 6.5 minimum (or equivalent) is essential for candidates for whom English is not their first language.

Candidates will need a strong first degree in Computer Science, Mathematics, Engineering or related subjects. Excellent technical ability and programming skills are essential. Specifically, we are seeking candidates with very good knowledge in software engineering (design and development) and at least one of the areas of systems modelling, artificial intelligence, and applied mathematics.

Funding: The successful candidate will be paid £14K per annum plus additional training and traveling expenses to international conferences.

For informal enquiries, please contact Dr Sofia Meacham by email: smeacham@bournemouth.ac.uk.