

## Two PhD Studentships in Distributed Knowledge Processing and Decision-Making for Wireless Sensor Networks

**Where?** *Department of Adaptive Systems, UTIA, Czech Academy of Sciences, Prague 8.*

**When?** Available *immediately* (open call).

**With whom?** Your research supervisor will be **Professor Anthony Quinn**, who holds joint posts as research scientist in the Department of Adaptive Systems, UTIA, *Czech Academy of Sciences*, and as associate professor in Electronic and Electrical Engineering at *Trinity College Dublin*, Ireland. Therefore, these PhD positions afford a rare opportunity for internationally-orientated research studies through the medium of English, and based in Prague.

**What is the opportunity?** The research projects will advance key agendas in (wireless) sensor networks, focussing on optimal cooperation between sensors and agents as they share data and knowledge, and, ultimately, support autonomous decision-making. Our human and technology environments are becoming dominantly sensorized, and all agents – from human citizens to medical support algorithms to industrial robots – will have to process distributed knowledge harvested from sensor networks. These projects will develop statistical signal processing and machine learning methods to address fundamental questions about how this distributed knowledge can optimally be processed into decisions, and about the performance guarantees that can be formulated.

**Who are you?** You understand that data science is a key enabler of smart technology progress in the twenty-first century, and you want a leading role in this agenda. You want to receive research training that will equip you to be an industry and/or academic leader in enabling technologies from statistical signal processing and machine learning. You are particularly fascinated by IoT and AI challenges, and understand that distributed knowledge processing and decision-making by machines are key in ensuring their autonomy. You have an excellent academic track record to level 9 (masters) in a discipline with some foundations in probability, statistics, systems and/or computation. You can present evidence of excellent skills in English communication, research aptitude, and a collaborative spirit, and be strongly committed to full-time PhD research for three years in Prague.

**What are the terms?** You will register for the PhD degree in either the *Charles University*, or the *Czech Technical University*, under the supervision of Professor Quinn at UTIA. In addition to the Czech PhD stipend, you will receive funding from the Czech research funding agency, GAČR, of between ČZK 10,000-20,000 per month (commensurate with qualifications), for three years. Funding will also be available to support regular attendance at international conferences to present our published and peer-reviewed research, and to ensure that computing and material requirements are met.

**What should you do?** Preliminary enquiries should be directed to Professor Quinn ([aquinn@utia.cas.cz](mailto:aquinn@utia.cas.cz)). The formal application (by email attachment to the same address) comprises (i) a full CV, including academic transcript, (ii) examples of peer-reviewed or examined research outputs, (iii) a list (with full contact details) of three referees; and (iv) a statement of purpose (maximum two pages).

Anthony Quinn, Prague and Dublin, 1st February 2018

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