PhD Studentship Position (SFI CONNECT P2 – MLWICON)

Job Posted:
Closing Date for Applications: Until position is filled
School: School of Computer Science and Information Technology
College: College of Science, Engineering and Food Science
Job Type: Research
Project: MLWICON: Towards machine learning based distributed resource allocation in wireless networked control systems
Salary: See advert for details

Project summary

MLWICON is a project within the national Science Foundation Ireland funded CONNECT Center for Future Networks (www.connectcentre.ie) of which UCC is one of the partner universities. Time-sensitive communication is critical for many applications, including industrial control applications and robotics. This project aims to deliver deterministic, reliable performance to time-sensitive applications over evolving WiFi networks. Realizing this aim implies the design of traffic management and medium access to tame the random nature of the wireless medium. The design of an intelligent solution at the access point and at distributed stations would play an essential role in achieving this goal. The project aims to devise machine learning algorithms, associated protocols, and network programming paradigms to facilitate deterministic delivery of packets in WiFi networks.

In this regard, we are now seeking to fill a PhD Studentship position, aligned with the CONNECT Centre research area of Dependable Networks. The appointed person will be working closely with Dr. Ahmed Zahran and Prof. Dirk Pesch, as well as their group's other relevant PhD students and Post-Doctoral Researchers and relevant academic and industry collaborators. We seek applications from candidates with expertise and interest in areas such as communication scheduling, radio resource allocation, protocol design, and machine learning applications. Ideal candidates will also have experience of computer simulation methods and network programming paradigms.

The PhD student will be based in the School of Computer Science & IT (CSIT) at University College Cork. CSIT@UCC is one of UCC's most research active schools with large scale research activities that are part of major national initiatives such as the CONNECT Centre for Future Networks, The Insight Centre for Data Analytics, and Lero, the Irish Software Research Centre. CSIT is also hosting two large doctoral training centres (CRT ADVANCE and CRT AI).

Applicants should hold an excellent undergraduate or Masters degree in computer science, computer engineering, telecommunications, or other relevant research areas. Ideally, applicants will be able to demonstrate an interest in both theoretical analysis and practical system design, with a keen interest in communication networks, machine learning and computer simulation.

The successful applicant will receive a stipend of €19,000 per annum for up to four years and an annual contribution of €5,500 towards tuition fees. Non-EU candidates can apply for an international fee waiver towards the fee contribution.

If the successful applicant's first language is not English they will have to provide evidence of English language proficiency https://www.ucc.ie/en/study/comparison/english/postgraduate/

General enquires about the PhD positions can be made to Dr. Ahmed Zahran, Email: a.zahran@cs.ucc.ie

Start date: We expect the successful applicant to start as soon as possible.

To Apply:

Applications by email to Mary Noonan at m.noonan@cs.ucc.ie and must include "**PhD CONNECT P2 MLWICON Application**" in the subject line. Applications must include, in PDF format only:

1. Full CV;
2. A transcript of results for all university level modules and courses;
3. One-page abstract describing final year undergraduate project or MSc project;
4. One-page abstract describing relevant work experience (if applicable);
5. One-page statement explaining interest in research, referring explicitly to one or more of the areas listed above.