PhD Scholarship

Signals, Information and Communications Research Institute
Centre for Signal and Information Processing

Deep Learning based Assistive Navigation for Vision Impaired People

A full scholarship is provided for an inspired and capable candidate to undertake PhD research on camera-based assistive navigation for blind people. Over 250 million people worldwide and 380,000 people in Australia suffer from visual impairment. The aim of the project is to investigate deep learning and artificial intelligence technologies and develop a portable electronic tool that enables a vision-impaired user to perform micro-navigation tasks. The targeted tasks include locating the pedestrian path in crowded scenes, evading obstacles and hazards, and recognising relevant landmarks. The technologies developed in this project can be adopted for road safety, self-driving vehicles, and autonomous robots. The project is supported by the Australian Research Council and the University of Wollongong.

The PhD scholarship is for a duration of 3.5 years. It includes a living stipend of AUD 27,596 a year (tax free, indexed annually), and a tuition fee waiver worth AUD 38,496 a year.

Selection Criteria:

1. An Honours degree, or a Master's degree, or a 4-year Bachelor degree with a high GPA, in computer engineering, electrical engineering, computer science or related fields;
2. An IELTS overall band score of 6.5 or more (university entrance requirement);
3. Good communication, interpersonal and team-work skills;
4. Experience in image processing, machine learning, and deep neural networks;
5. Strong programming skills in either Python, MATLAB, C/C++, or Java;
6. Experience in preparing research publications.

Interested candidates should send their Curriculum Vitae, academic transcripts, two referee letters, and a 2-page overview of their research experience, as a single PDF file, to

- Associate Professor Son Lam Phung (phung@uow.edu.au), or
- Senior Professor Abdesselam Bouzerdoum (bouzer@uow.edu.au).

Closing Date: 31 October 2019, or until a suitable candidate is found.

FACULTY OF ENGINEERING AND INFORMATION SCIENCES
University of Wollongong, Australia