2016/2017 EIS Summer Research Scholarship

Supervisor: A/Prof. Lam Phung

A scholarship of \$5000 is provided for an excellent UOW undergraduate student to participate on a 10-week research project between 12/2016 and 02/2017.

Project title: Developing a Deep Learning Architecture with Tolerance for Geometric Distortions

<u>Project description</u>: In recent years, deep learning has gained fervent interests in machine learning, computer vision and many other fields. It has been judged by MIT Technology Review as one of the top-10 breakthrough technologies in 2013. A major architecture in deep learning is convolutional neural network, which is based on the ideas of local receptive fields, weight sharing and sub-sampling. This architecture is widely used for image recognition and it has demonstrated some tolerance for small distortions in the image pattern. The aim of this project is to extend the architecture of convolutional neural network to increase its robustness against both global and local geometric distortions. This project is suitable for motivated students with a mathematical background, experience in MATLAB or C/C++ programming and an interest in further research study.

<u>To apply</u>: Visit http://eis.uow.edu.au/scholarships/summer/index.html

Application deadline: 16/10/2016.