

Victorian Section IEEE SMC Victorian Chapter

Title:

Computational Intelligence-based Systems: Architectures, Algorithms, and Applications

by

A/Prof Chee-Peng Lim Centre for Intelligent Systems Research Deakin University, Australia

12.00 noon – 1.00 pm, Monday, 2 March 2015 Room NA 1.418, GTP building (Ground Floor), Deakin University, Waurn Ponds, Geelong, Australia

RSVP – http://www.deakin.edu.au/research/cisr/workshops/ieee-smc-vic.php
Professor Saeid Nahavandi or Trish O'Toole
trish.otoole@deakin.edu.au or Tel: +61 3 5227 1352

Abstract

In this information age, the usefulness and applicability of computerised intelligent systems in deriving knowledge enterprise is well-recognised. As an example, search and advertising tools of Google provided \$111 billion to economic activities of the USA in 2013. Computational intelligence is a broad discipline that encompasses many different methodologies inspired by human and/or animal intelligence. In this lecture, the benefits of utilising computational intelligence for designing and developing computerised intelligent systems are exemplified. Different architectures and algorithms of individual and hybrid computational intelligence models, which include artificial neural networks, fuzzy systems, and evolutionary algorithms, are explained. Applications of such computational intelligence-based systems to a number of real-world problems are demonstrated.

Biography:

Chee-Peng Lim's research interests include design and development of computational intelligence-based systems for pattern classification, data mining, condition monitoring, medical prognosis and diagnosis, manufacturing process optimization and decision support. He collaborates closely with researchers in the international arena, whereby he received the Australia-India Senior Visiting Fellowship , 2013 (by Australian Academy of Science), Australia-Japan Emerging Research Leaders Exchange Program, 2013 (by Australian Academy of Technological Sciences and Engineering), Australia Endeavour Executive Award, 2009, Commonwealth Fellowship, 2003 (University of Cambridge, UK); Fulbright Scholarship, 2002 (University of California, Berkeley, USA). To date, he has published more than 270 technical papers in journals, conference proceedings, and books, received 7 best paper awards, edited 3 books and 12 special issues in journals, and served in the editorial board of 5 international journals.