

**Title:**

Intelligent Agent Technology for Intelligent and Autonomous Systems

**by**

Dr Andrew Lucas  
Managing Director of AOS Pty Ltd

12.00 noon – 1.00 pm, Monday, 1 June 2015  
Room NA 1.418, GTP building (Ground Floor),  
Deakin University, Waurin 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](mailto:trish.otoole@deakin.edu.au) or Tel: +61 3 5227 1352

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**Abstract**

Autonomous and intelligent systems are now in the news on a daily basis – the Google Car, Amazon's Prime Air system for small parcel delivery, and the UK Government announcement of the trial of autonomous vehicles in three cities in 2015. Autonomous and intelligent systems rely upon the convergence of a new generation of low cost, low power consumption sensors and a new generation of reasoning software. AOS's work on intelligent software agents has led to their adoption for autonomous systems. This talk will highlight a couple of recent applications and the potential for autonomous systems in Australia's key industries of agriculture and mining.

**Biography:**

Andrew Lucas is the founder and Managing Director of AOS Pty Ltd and of its subsidiaries in Cambridge, UK and Dallas. AOS specialises in the development of reasoning software for the rapidly developing field of intelligent robotics and autonomous systems. Andrew holds a Ph.D. in Aeronautical Engineering from Cambridge University, United Kingdom and a Bachelor of Engineering (1<sup>st</sup> Hons) from the University of Melbourne, Australia. He has over forty years of experience in various engineering roles in aerospace & defence, management consulting, robotic systems, artificial intelligence software, and telecommunications. Andrew started in the aerospace industry in the design team of the Nomad light turboprop, and then for Rolls-Royce, Derby. He later founded The Preston Group (now Preston Aviation Solutions, a division of Boeing). He has nearly twenty years experience in the technology of Artificial Intelligence and Software Agents and their applications in simulation and robotics.

AOS is applying Artificial Intelligence technology to unmanned vehicles, and has recently tested its "Intelligent Watch Dog", and autonomous surveillance system, in conjunction with Insitu Pacific Limited and RMIT University. AOS, together with BAE Systems, Airbus, Cobham, QinetiQ, Rolls-Royce and Thales, are partners in the UK national ASTRAEA Unmanned Air Systems program.