



Challenges in Multiagent-based Simulations

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Mahasarakham University, Thailand

DATE: Monday, 30 July 2018
TIME: Starting at 1pm
VENUE: Murdoch University, Building 490 Room 2.024
(<https://maps.murdoch.edu.au/location/14902024>)
COST: Free, please RSVP to k.wong@murdoch.edu.au

Abstract:

Among many areas of research in multiagent systems, simulation has gained a lot of attention from researchers. The benefit of applying multiagent concepts in simulation is the ability to capture precise individual characteristics, including decision making and behaviour, of entities in the system. The purpose of this talk will cover Dr Chattrakul's previous research, mostly sponsored by Thailand's Defence Technology Institute, in multiagent-based simulation. The first one is the object database for combat simulation, including fighter jets, tanks and airports. The other projects are large crowd simulation in urban area, based on the real incidents during political turmoil in Bangkok, UAV search and rescue mission in remote area, and UAV surveillance and tracking mission in urban area. Dr Chattrakul will discuss the underpinning mechanism, including BDI (Belief-Desire-Intention), a popular decision making framework for intelligent agents, and RVO (Reciprocal Velocity Obstacle), an efficient navigation system for collision avoidance. Lastly, he will present possible topics for joint research projects

About the speaker:

Chattrakul Sombattheera received this PhD from University of Wollongong in 2010, Master of Information Technology from University of Sydney in 1999 and Graduate Diploma in Computer Science from University of Western Australia in 1996. During his 12 years in Australia, he also worked as a tutor, a programmer and a business developer. With research background in coalition formation during his PhD, he returned to Thailand in 2008 to lecture at Mahasarakham University. Ever since, he has won several grants from several funders, including Ministry of Defence, Ministry of Science, Office of Higher Education, Thai Research Fund, for his research projects in multiagent systems. In addition, his research has been applied to businesses, including Panasonic Thailand, Star Fashion, Thai Union, Hitachi Thailand.