



## The Power of Cooperation in Multiagent Systems

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Mahasarakham University, Thailand

DATE: Monday, 30 July 2018  
TIME: Starting at 1:30pm  
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](mailto:k.wong@murdoch.edu.au)

### Abstract:

The underpinning principle for interaction among agents is game theory, which can be divided into non-cooperative and cooperative games. Although the former is well known by most people (Nash equilibrium, for example), the latter seems to offer the real power, yet to be realized and acknowledged, of multiagent systems. In this talk, Dr Chattrakul will introduce the concept of coalition formation, another name of cooperative games. Then it will be introduced important solution concepts in coalition formation, including Shapley value, Kernel, optimal coalition structure, and the Core. Dr Chattrakul will present examples of real world applications of these solution concepts, including on-going projects with the Thailand's Ministry of Science and Thai Research Fund. Lastly, Dr Chattrakul will propose 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.