WESTERN SYDNEY UNIVERSITY

School of Computer, Data and Mathematical Sciences

HDR Seminar 38

Program
21 May 2024

12:00pm - 12:30pm	**Briefing:** Associate Professor Quang Vinh Nguyen **Topic:** Policy updates and announcements **Discussion and Consultation:** Matthias Fresacher, SoCDMS Research and Higher Degree Committee Student Representative, and 2nd PhD student in pure mathematics. **Topic:** HDR matter(s)
12:30pm - 01:15pm	**Invited Speech** **Topic:** Representing and reasoning about auctions **Speaker:** Prof. Laurent Perrussel, University Toulouse Capitole **Abstract:** In this talk, we propose a framework for representing and reasoning about auction-based protocols. Such a framework is of interest for building digital marketplaces based on auctions and should fulfill two requirements: (i) it should enable bidders to express their preferences over combinations of items and (ii) it should allow the mechanism designer to describe the rules governing the market, namely the legality of bids, the allocative choice, and the payment rule. To do so, we define a logical language in the spirit of the Game Description Language, namely Auction Description Language with a set of functions; it is expressive enough to represent different kinds of protocols and enables reasoning about auction properties, including playability, termination, and budget-balance. **Bio:** Laurent Perrussel (https://www.irit.fr/~Laurent.Perrussel/) is a full professor at University Toulouse Capitole since 2015. From 1995, LP is a member of the AI research group. LP's current research is on strategic reasoning and GDL and he is an expert on multiagent systems and reasoning about actions. He tutored or co-tutored seven PhD students and he published ~35 A-A* conference papers and journal papers. He gave tutorials at KR, IJCAI and AAMAS in the last years and he will be a lecturer at the summer school ESSAI-24.
01:15pm - 01:45pm	**Student Presentations** **Speaker 1:** Jaber Valizadeh **Supervisors:** Dongmo Zhang and Omar Mubin. **Topic:** The Power of Autonomy **Speaker 2:** Qi Wang **Supervisors:** Dongmo Zhang, Yan Zhang and Bo Du. **Topic:** Modelling Congestion and price competition in EV Charging Markets
01:45pm - 2:00pm	**Nishan Gunawardena:** draw for the lucky winner who participated in Nishan's PhD project. **Closing Remarks**

Venue: PS-EA.2.29

Join Zoom Meeting
https://uws.zoom.us/j/86825376821?pwd=RVU5a3QyNVFRWTRpZmVBcU9uaXVpUT09

Meeting ID: 868 2537 6821
Password: 824023