MAS Lab Personnel Through the Years

Lab Director – Victor Lesser

Associate Director – Daniel Corkill

Business Manager – Michele Roberts

The lab, over its 36 years of existence, graduated 35 Ph.D. students:

Richard Brooks, 1983 *"Experiments in Distributed Problem Solving."*

Daniel Corkill, 1983 *"A Framework for Organizational Self-Design in Distributed Problem-Solving Networks."*

Jasmina Pavlin, 1985 *"A Model for Prediction and Description of Knowledge-Based System Behavior."*

Eva Hudlickà, 1986 *"Diagnosing Problem Solving System Behavior."*

Edmund Durfee,* 1987 *"A Unified Approach to Dynamic Coordination: Planning Actions and Interactions in a Distributed Problem Solving Network."* (NSF presidential young investigator award; AAAI Fellow; IEEE Fellow)

Lawrence Lefkowitz, 1987 *"Knowledge Acquisition through Anticipation of Modifications."*

Karen Huff, 1989 *"Plan-Based Intelligent Assistance: An Approach to Supporting the Software Development Process."* (Deceased)

Norman Carver,* 1990 *"Sophisticated Control for Interpretation: Planning to Resolve Sources of Uncertainty."*

Philip Johnson, 1990 *"Type Flow Analysis for Exploratory Software Development."*

Daniel Neiman,* 1992 *"Design and Control of Parallel Rule-Firing Production Systems."*

Susan Lander,* 1994 *"Distributed Search and Conflict Management Among Reusable Heterogeneous Agents."*

David Hildum, 1994 *"Flexibility in a Knowledge-Based System for Solving Dynamic Resource-Constrained Scheduling Problems."*

Keith Decker, 1995 *"Environment Centered Analysis and Design of Coordination Mechanisms."* (NSF CAREER award)

Alan Garvey, 1996 *"Design-to-time Real-time Scheduling."*

Robert Whitehair, 1996 *"A Framework for the Analysis of Sophisticated Control."*

Tuomas W. Sandholm, 1996 *"Negotiation Among Self-Interested Computationally Limited Agents."* (NSF CAREER award; IJCAI'03 Computer & Thought Award; ACM/SIGART 2001 Autonomous Agents Research Award; AAAI Fellow)

Frank Klassner, 1996 *"Data Reprocessing in Signal Understanding Systems."*

M. V. Nagendra Prasad, 1997 *"Learning Situation-Specific Control in Multi-Agent Systems."*

Malini K. Bhandaru, 1998 *"Learning Object Models for Adaptive Perceptual Systems."*

Thomas Wagner, 1999 *"Towards Quantified Control for Organizationally Situated Agents."*

Ping Xuan, 2002 *"Uncertainty Handling and Decision Making in Multi-Agent Cooperation."*

XiaoQin "Shelley" Zhang, 2002 *"Sophisticated Negotiation in Multi-Agent Systems."*

Zachary Rubinstein, 2002 *"Efficient Scheduling of Evolving, Nondeterministic Process Plans in Dynamic Environments."*

Anita Raja, 2003 *"Meta-Level Control in Multi-Agent Systems."*

Roger Mailler,* 2004 *"A Mediation-Based Approach to Cooperative, Distributed Problem Solving."*

Bryan Horling, 2005 *"Quantitative Organizational Modeling and Design for Multi-Agent Systems."*

Sherief Abdallah, 2006 *"Scalable Cooperative Multiagent Reinforcement Learning in the Context of an Organization."*

Raphen Becker, 2006 *"Exploiting Structure in Decentralized Markov Decision Processes."*

AnYuan Guo, 2006 *"Planning and Learning for Weakly-Coupled Distributed Agents."*

Haizheng Zhang, 2006 *"Learning Based Organizational Approaches for Peer-to-Peer Based Information Retrieval Systems."*

Jiaying Shen, 2007 *"Communication Management in Distributed Sensor Interpretation."*

Bo An, 2011 *"Automated Negotiation for Complex Multi-Agent Resource Allocation."* (Winner of the 2010 IFAAMAS Victor Lesser Distinguished Dissertation Award and a 2012 Recipient of 'China's 1,000 Young Talents Program' Award);

Hala Mostafa, 2011 *"Exploiting Structure in Coordinating Multiple Decision Makers."*

Chongjie Zhang, 2011 *"Scaling Multi-Agent Learning in Complex Environments."*

Yoonheui Kim 2014 *"Application of Techniques for Map Estimation to Distributed Constraint Optimization Problem."*

The following PhD graduates continued to work in the lab after graduation as post-doctoral researchers or research scientists: Daniel Corkill, Edmund Durfee, Norman Carver, Daniel Neiman, Susan Lander, Roger Mailler, and Chongjie Zhang.

In addition to the above Ph.D. graduates of the lab, the following people also made important contributions to the lab during their tenure as professional or

student members. They include (chronologically by commencement of their collaboration): Dr. Scott Reed, Dr. Jeff Bonar, Dr. Peter Bates, Sherryl (Franklin) Radbil, Joseph Hernandez, Daniel McCue, Edward Pattison, Anil Rewari, David Westbrook, Zarko Cvetanovic, Prabhat Gupta, Margie Connell, Izaskun Gallastegi, Dr. Marty Humphrey, Dr. Hassan Lâasri, Dr. Brigitte Maitre-Lâasri, Dorothy Mammen, Quin Long, Mike Chia, Dr. Ana Bazzan, Dr. Regis Vincent, Mike Atighetchi, Brett Benyo, Dr. Claudia Goldman-Shenhar, Dr. Rodion Podorozhny, Dr. Kyle Rawlins, John Ostwald, Gerhard Schroff, Dr. Ingo Weber, Dr. Ning Zhang, Huzaifa Zafar, Mark Sims, Michael Krainin, Eric O'Connor, Kirby Seitz, Dr. Bruno Castro da Silva, and Daniel Garant.

The lab has also benefited from hosting numerous long-term visitors and collaborating with several UMass faculty. The long-term visitors include, in the order of their arrival: Professors Pang Yung-Jie, Susan Conry, Robert Meyer, Jiwen Guan, Kazuhiro Kuwabara, Toshiharu Sugawara, Chengji Zhang, Sergei Nirenburg, Satoru Fujita, Hitoshi Ogawa, Yang Xiang, Young-Im Cho, He Luo, and Zhiqi Shen. The UMass faculty include: Professors Bruce Croft, Deepak Ganesan, David Jensen, Jim Kurose, Gerome Miklau, Lee Osterweil, Paul Utgoff, Jack Wileden, Beverly Woolf, Shlomo Zilberstein, and Michael Zink (Electrical and Computer Engineering), and Professors Abhi Deshmukh and Ian Grosse (Mechanical and Industrial Engineering). There have also been long-term external collaborations with Professors Hamid Nawab of Boston University, Chunyan Maio of Nanyang Technological University (Singapore), Catholijn Jonkers and Birna van Riemsdijk of Delft University of Technology (Delft, Netherlands), and collaborating with former members of the lab: Professors Bo An, Sherief Abdallah, Ana Bazzan, Edmund Durfee, Norman Carver, Anita Raja, and Xiaoqin "Shelley" Zhang. We also collaborated with Dr. Douglas Holzhaeur and Dale Richards (Rome Labs) and Dennis Rock (Boeing).