

Concordia Institute for Information Systems Engineering

**THE CONCORDIA INSTITUTE FOR INFORMATION SYSTEMS ENGINEERING  
IS PLEASED TO PRESENT THE FOLLOWING GUEST LECTURE IN  
OUR CIISE SEMINAR SERIES**

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**Mr. Babak Khosravifar, Ph.D. Student  
Electrical and Computer Engineering**

**TRUST IN MULTI-AGENT SYSTEMS**

Over the last recent years, agent communication protocols have been well established in multi-agent systems. In such systems, autonomous agents are distributed in large-scale network and interact to collaborate and share resources. Therefore, trust is essential in such settings to provide a social control in effective interactions. To address this issue, we propose a maintenance-based trust mechanism for agents operating in open multi-agent systems. In the proposed model, a comprehensive trust assessment process is provided to assess the trustworthiness of the participating agents. The main characteristic of this model is the retrospect trust adjustments, which integrate the applicable constraints and modify the involved features with respect to the actual performance of the evaluated agent. Specifically, the retrospect process updates the belief set of the agents in order to adapt them to the social network changes. In this seminar, I will describe the architecture of the proposed framework and provide a theoretical analysis of its assessment. I will also discuss the system implementation along with simulations comparing it with the broadly known frameworks.

**Biography:** Babak Khosravifar received the B.Sc. degree in computer science from Tehran University, Iran, in 2005 and the M.Sc. degree in computer engineering from Eastern Mediterranean University, Cyprus in 2006. He is currently a Ph.D. student in electrical and computer engineering in Concordia University. His research interests include multi-agent interaction, computational trust, dialogue and argumentation, security in multi-agent systems.

**Thursday, February 5, 2009**

**16:00 – 17:00  
EV003.309**

*Refreshments will be served*  
**(1515 St. Catherine Street West)**

