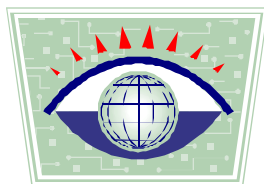


## About the Instructor



Dr. Behrouz Homayoun Far, PhD, is an Associate Professor at the Department of Electrical and Computing Engineering, University of Calgary. He teaches courses in software reliability and testing, software metrics, agent-based software systems and object-oriented analysis and design. Dr. Far has previously been employed by the Japanese Science and Technology Agency (1990-1992) and Japanese Ministry of Education, Culture, Sports, Science and Technology (1992-2001) and has consulted for several companies in Japan and Canada.



Lecture Series on  
Software Systems for The  
Future (1)  
Organizer and Coordinator:  
Dr. B. H. Far



## Contact Information

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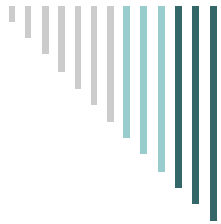


Faculty of Engineering  
University of Calgary

## Agent-Based Software Engineering



Lecture Series on Software  
Systems for The Future  
(1)



## Agent-Based Software Engineering

Agent-based systems are software products that not only do things as specified but also have knowledge to do their job and can do it in a cooperative, coordinative and competitive way.

What are myths and realities of the agent-based systems?

How to develop an agent-based system for a particular task?

How to evolve from object-oriented development to agent-based systems?

How to incorporate and share knowledge among software agents?

These are only a few questions that can be answered by agent-based systems.

## How to build intelligent software systems using agent technology?

## How agent technology can help develop better software products?

### Course Description:

This course begins with an overview of the agent systems and software agents.

Then we focus on agent system architecture and infrastructure from a software engineering viewpoint, including: requirements for agent-based systems; modeling and design of agent-based systems; development process for agent-based systems

Topics such as agent architecture, communication, knowledge sharing, computing and uncertainty management are discussed. Studying society of agents and models of agency follows. Finally, a methodology for agent-oriented software development is presented.

Workshop for agent-based system analysis and design is included to reinforce the presented material.

### Course Objectives:

After taking this course, the participants

- will have an understanding of the agent system terminology and development process of agent-based systems
- will have learned techniques to design agent-based system
- will know how to modify architec-



ture of the current software systems and re-structure them to be agent-based.

### Course Duration:

2 days

### Course Pre-requisites:

Principles of object oriented analysis and design.

### Course Audience:

Software developers; those who want to know how to use agent technology in developing software product.

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