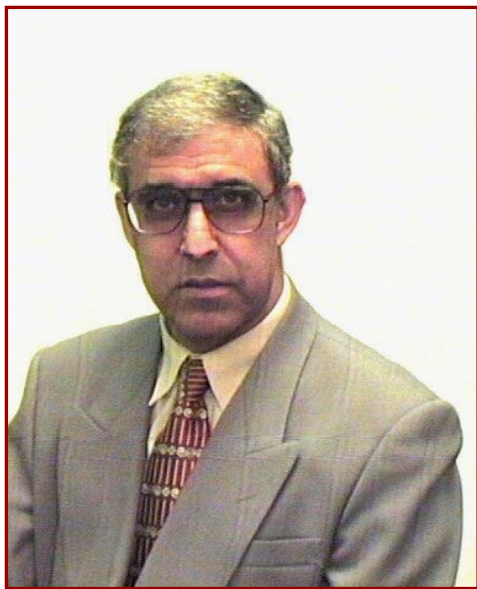


THURSDAY
DECEMBER 2, 2004

Scaife Hall Auditorium
Room 125

4:00 PM
Refreshments—3:30 PM



Mo Jamshidi

UNIVERSITY OF NEW MEXICO

Mo Jamshidi received the Ph.D. degree in electrical engineering from the University of Illinois at Urbana-Champaign in 1971. He is currently the Regents Professor of Electrical and Computer Engineering, the AT&T Professor of Manufacturing Engineering, and the founding Director of Center for Autonomous Control Engineering (ACE) at the University of New Mexico, Albuquerque. He is a Senior Research Advisor at US Air Force Research Laboratory, KAFB, New Mexico. He has been an advisor to NASA Headquarters Code K, NASA JPL, and to the US Department of Energy Office of Industrial Technologies. He has worked in industry at IBM Corporation and General Motors Corporation (USA) and Siemens Automotive, France. He has over 550 technical publications, including 12 textbooks and 41 research monographs, conference proceedings books, and edited volumes. Six of his books have been translated into other languages and used as textbooks around the world. He is the Founding or Co-founding Editor or Editor-in-Chief of 5 journals. He has chaired several IEEE and WAC conferences since 1974 and is a fellow of IEEE, ASME, AAAS, HAE, and TWAS. He is the recipient of the IEEE Centennial Medal, IEEE Control Systems Society Distinguished Member Award, and the IEEE CSS Millennium Award. Currently, he serves as the Vice President for Conferences for the IEEE Systems, Man, and Cybernetics Society.

Marija Ilic, ECE Seminar Host
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For more information:
<http://www.ece.cmu.edu/seminar>

V-LAB[®] - SoS ... A VIRTUAL LABORATORY FOR SYSTEM OF SYSTEMS AS INTELLIGENT AGENTS

In this lecture, we present a virtual laboratory (called V-Lab[®]) for multi-physics distributed modeling and simulation of system of systems. System of systems Engineering (SoSE) refers to collections of sets of complex, large-scale systems. The elements of V-Lab[®], from bottom to top, are computer networks, middleware like CORBA (Common Object Request Broker Architecture), sockets, etc., I-DEVS (Intelligent Discrete Event Systems Specifications), and computationally intelligent tools such as fuzzy logic (approximate reasoning), neurocomputing (learning), evolutionary computations (optimization), SLA - Stochastic learning automaton (statistical learning), etc.

In this seminar, first the elements of V-Lab[®] will be presented, and then some current results on the use of I-DEVS in multi-agent robotics will be given. We will provide simulation results for multi-agent rovers performing a recognition and monitoring task. We will also demonstrate real-time implementation of the V-Lab[®] architecture on an ActiveMedia Pioneer II[™] rover. Additionally, we will show some movies on the status of V-Lab[®] software and hardware applications.