Electrical & Computer ENGINEERING

SEMINAR

THURSDAY
APRIL 13, 2006

Scaife Hall Auditorium
Room 125

4:00 PM
Refreshments—3:30 PM

AD-HOC NETWORK SYSTEMS AND APPLICATIONS

HAMID GHARAVI

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST)

Hamid Gharavi (IEEE Fellow'92) received the Ph.D. degree from Loughborough University, Loughborough, U.K., in 1980. He joined AT&T Bell Laboratories, Holmdel, in 1982. He was then transferred to Bell Communications Research (Bellcore) after the AT&T-Bell divestiture, where he became a Consultant on video technology and a Distinguished Member of Research Staff. In 1993, he joined Loughborough University as Professor and Chair of Communication Engineering. Since September, 1998, he has been with the National Institute of Standards and Technology (NIST), US Department of Commerce, Gaithersburg, MD.

He was a core member of the Study Group XV (Specialist Group on Coding for Visual Telephony) of the International Communications Standardization Body CCITT (ITU-T). He was selected as one of the six university academics to be appointed to the U.K. Government's Technology Foresight Panel in Communications to consider the future through 2015 and make recommendations for allocation of key research funds. His research interests include video/image transmission, wireless multimedia, mobile communications and third generation wireless systems, and mobile ad-hoc networks. He holds eight U.S. patents related to these topics.

Dr. Gharavi has been a Guest Editor for a number of special issues. He is the Deputy Editor-in-Chief of the IEEE Transactions on CAS for Video Technology. Since January 2003, he has been serving as a member of the Editorial Board of the PROCEEDINGS OF THE IEEE. He received the Charles Babbage Premium Award of the Institute of Electronics and Radio Engineering in 1986 and the IEEE CAS Society Darlington Best Paper Award in 1989. Dr. Gharavi is a Distinguished Lecturer of the IEEE Communication Society.

The main difficulty with Ad-hoc Networks for real-time applications is the lack of link reliably due to the dynamically changing network topology. In this talk the speaker will present challenges facing the transmission of real-time signals over multihop CSMA/CA networks. In addition, methods such as feedback control schemes will be discussed. These schemes will be assessed subjectively using a high-speed simulation testbed. This testbed is capable of grabbing live video at the source node and displaying the received video at the destination node in real-time and under various test conditions.

Markus Pueschel, ECE Seminar Host
pueschel@ece.cmu.edu

For more information:
http://www.ece.cmu.edu/seminar

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