Keynote Speech 1:

Mobile Multimedia Services: Issues and Challenges

Arif Ghafoor

Director of
Distributed Multimedia Systems Laboratory
School of Electrical and Computer Engineering
Purdue University, West Lafayette, IN 47907
ghafoor@ecn.purdue.edu

Abstract

Emerging mobile information and computing services are exhibiting increasing reliance on distributed multimedia information systems (DMIS). Examples of such applications abound in the domains of medicine, entertainment, manufacturing, e-commerce, as well as military and critical national infrastructures. A broad range of technological solutions for organizing, storing, processing and delivering multimedia contents in an integrated, secure and timely manner, with guaranteed quality of service (QoS), are needed for developing mobile DMISs. Such development poses formidable research and implementation challenges. In this talk we present key challenges in terms of QoS-based network resource and mobility management, context-aware computing, and information security. We elaborate on these challenges and present a high level distributed architecture aimed at providing the critical functionality for mobile DMISs.