IEEE Communications Society and IEEE Vehicular Technology Society- Joint Chapter- Invited Lecture Announcement

"VDL - Connecting Space Assets to the Internet: Challenges and Solutions"

Speaker: Mohammed Atiquzzaman, Ph.D. and Distinguished Lecturer.
Date: Thursday, November 03, 2022
Lecture: 06:30 PM to 08:00 PM, All times are (UTC-06:00) Central Time (US & Canada)
Zoom: https://us06web.zoom.us/j/86364267282?pwd=VG1QZ0tXdDZ5REh5RkhjRUVweGE1QT09
Meeting ID: 863 6426 7282   Passcode: 101802

Abstract: Data communications between Earth and devices on spacecraft, such as satellites, have traditionally been carried out through dedicated links. Shared links using Internet Protocol-based communication offers a number of advantages over dedicated links. The movement of devices on spacecrafts however gives rise to mobility management issues. This talk will discuss various mobility management solutions for extending the Internet connection to devices on the spacecraft. The talk will provide an overview of the network layer-based solution being developed by the Internet Engineering Task Force and compare it with the transport layer-based solution that has been developed at the University of Oklahoma in conjunction with the National Aeronautics and Space Administration. Network in motion is an extension of the host mobility protocols for managing the mobility of networks which are in motion, such as those in airplanes and trains. The application of networks in motion will be illustrated for terrestrial and space environments.

Speaker's Bio: Mohammed Atiquzzaman obtained his M.S. and Ph.D. in Electrical Engineering and Electronics from the University of Manchester (UK) in 1984 and 1987, respectively. He currently holds the Edith J Kinney Gaylord Presidential professorship in the School of Computer Science at the University of Oklahoma.

Dr. Atiquzzaman is the Editor-in-Chief of the Journal of Networks and Computer Applications, the founding Editor-in-Chief of Vehicular Communications and serves/served on the editorial boards of many journals including IEEE Communications Magazine, Real Time Imaging Journal, International Journal of Communication Networks and Distributed Systems and Journal of Sensor Networks and International Journal of Communication Systems. He co-chaired the IEEE High Performance Switching and Routing Symposium (2003, 2011), IEEE Globecom and ICC (2014, 2012, 2010, 2009, 2007, 2006), IEEE VTC (2013) and the SPIE Quality of Service over Next Generation Data Networks conferences (2001, 2002, 2003). He was the panels co-chair of INFOCOM'05, and is/has been on the program committee of many conferences such as INFOCOM, Globecom, ICCCN, ICCIT, Local Computer Networks, and serves on the review panels at the National Science Foundation. He received IEEE Communication Society's Fred W. Ellersick Prize, IEEE Distinguished Technical Achievement Award, IEEE Satellite Communications Technical Contribution Award, and NASA Group Achievement Award for "outstanding work to further NASA Glenn Research Center's effort in the area of Advanced Communications/Air Traffic Management's Fiber Optic Signal Distribution for Aeronautical Communications" project. He is the co-author of the book "Performance of TCP/IP over ATM networks" and has over 350 refereed publications, available at www.cs.ou.edu/~atiq. His current research interests are in areas of transport protocols, wireless and mobile networks, ad hoc networks, satellite networks, power-aware networking, and optical communications. His research has been funded by National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), U.S. Air Force, Cisco, Honeywell, Oklahoma Department of Transportation and Oklahoma Highway Safety Office.

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