Louisville Section Meeting

Date: Thursday, April 20, 2023

Time: 11:30 AM - Sign-in, Pay and Socialize
Noon – Buffet Lunch
12:30 PM – Presentation

Location: University Club – Univ. of Louisville Campus

Website: www.facebook.com/uclublouisville/

Price: $15 members and guests
$10 life members and students

RSVP: Jim Graham, Life Member Coordinator
Please RSVP jg223@hotmail.com no later than April 15
Please note that we must pay for all meals that we reserve.

Topic: A Deep Reinforcement Learning-based Approach for Intelligent Spectrum Optimization for Future Aeronautical Communications

Speaker: Dr. Hongxiang Li

Abstract:

The emergence of new aerial vehicles into the airspace and the continued growth of aviation operations will cause increasing demands for wireless communications throughout the National Airspace System (NAS). In particular, the emerging concepts of Urban Air Mobility (UAM) and Advanced Air Mobility (AAM) open a new paradigm for urban air transportation. By partnering with NASA Glenn Research Center (GRC), the University of Louisville has been investigating intelligent spectrum management solutions to maximize the spectrum utilization efficiency for aeronautical communications in support of future air transportation systems. This seminar will present the latest development of the Deep Reinforcement Learning (DRL) based solutions on air-ground and air-air communications.

Speaker Background:

Dr. Hongxiang Li has over 20 years of experience in the research and development of wireless communication and networking systems. He received his Ph.D. degree in 2008 from the University of Washington-Seattle, in electrical engineering. Currently, he is an Associate Professor with the Department of Electrical and Computer Engineering at the University of Louisville. Dr. Li was the recipient of the ORAU Ralph E. Powe Junior Faculty Enhancement Award in 2012. He was also the NASA Glenn Faculty Fellowship Program (NGFFP) awardee in 2013, 2018 and 2019. In recent years, his research interests include big data analytics and the application of machine learning to communication systems and spectrum optimization. His research has been funded by National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), and Office of Naval Research (ONR). Dr. Li also served as an Editor for IEEE COMMUNICATIONS LETTERS.

This Event is Co-sponsored by:

The Louisville Section of the IEEE and
The Life Member Affinity Group of the Louisville Section
Computer Society Chapter (CS) of the Louisville Section