

The School of Electrical and Computer Engineering DISTINGUISHED SEMINAR SERIES 2022

The Distinguished Seminar Series of the School of Electrical and Computer Engineering (ECE) presents the work of internationally recognized researchers. This seminar series is intended to provide an open platform for the faculty & students to have a dialog with leading researchers in various fields of ECE, and to build a dynamic and vibrant culture of research and academic exchange in the ECE department. All seminars are free and open to the public.

ECE



Dr. Jim Lansford

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The Role of Standards in Communications –How the Sausage Gets Made

2:30-3:30p.m. Friday, November 4 | ATRC 102

Abstract: Many people are unaware of all of the standards in products they use every day. From tires, to railroad tracks to tools to thousands of other items, groups of people, often engineers, have to define and agree upon the way things should be made. Standards frequently define the minimum performance needed by a product, and usually also define the criteria for interoperability. Standards are specially important in wireless communication, since there is no “plug” to connect devices of the same type. From cellular to Wi-Fi to Bluetooth, standards are essential to assure that products from multiple vendors interoperate and have some minimum level of performance that assure consumers will have a good user experience. Standards Development Organizations, or SDOs, have regular meetings to work on these specifications, and develop evolution paths to enhanced versions of the technology in the future. Standards bodies are unique in that competing companies have to cooperate to define the standards, against a backdrop of intellectual property and multi-billion dollar markets. This talk will give an introduction to a few of the larger SDOs and the way the “sausage gets made” – how some of the wireless technologies you use every day were developed.

Speaker Bio: Jim Lansford is in Qualcomm's Standards and Industry Organizations group, working in V2X, Wi-Fi, and UWB standards and strategy. He has over 40 years of experience in communications systems, digital signal processing, and strategic business development. He is currently chair of the Wireless Next Generation Standing Committee in IEEE 802.11, the “incubator” group for all new Wi-Fi technologies. In the Wi-Fi Alliance, he chairs the Automotive Market Segment Task Group and the Long Range Strategy Group. He also serves as the Editor of the SAE J3161/1 standard in SAE International, which defines the standard for communications between vehicles. He is active in the 5G Automotive Association, participating in standards and certification activities. As co-chair of the Regulatory Working Group in the FiRa Consortium, he is helping lead regulatory efforts for ultrawideband (UWB) deployment. Finally, he is on the board of directors for the OmniAir Consortium, the world's leading certification body for tolling and V2X technology. He is currently active as an Adjunct Professor in the Computer Science Department at the University of Colorado – Boulder. Dr. Lansford has served as an ABET Program Evaluator, is currently a Senior Member of the IEEE, and has a Wireless Communications Engineering Technology (WCET) certification. Dr. Lansford has a Ph.D. in Electrical Engineering from Oklahoma State, an MSEE from Georgia Tech, and a BSEE (highest honors) from Auburn University. He lives with his wife Lynn in Cascade, Colorado.

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