IEEE Southeastern Michigan Section

Chapter III & IV Meeting

Tuesday, May 25, 2010 6:00pm
Science and Engineering Building
Electrical and Computer Engineering Department
Oakland University
Rochester, Michigan 48309

Speaker

Dr. Daniel N. Aloi

Director, AEWL
Applied Electromagnetics and Wireless Lab (AEWL)

"Overview of Applied EMAG and Wireless Lab's Capabilities and Research"

Abstract:
The Applied EMAG and Wireless Laboratory (AEWL) at Oakland University was formed by Dr. Daniel N. Aloi to address the needs created by the increasing evolution of wireless systems into our everyday world. The global proliferation of wireless technologies onto dynamic platforms has generated challenging engineering issues such as antenna design, antenna placement, signal propagation modeling, interference and overall wireless system performance. The AEWL has focused its expertise and capabilities to conduct sponsored research and to provide undergraduate and graduate level curriculum in these areas. The AEWL possesses extensive antenna measurement capability that directly addresses the needs of the automotive industry. It has an Outdoor Automotive Antenna Range that is capable of measuring on-vehicle antenna radiation pattern measurements and an Indoor Antenna Anechoic Chamber that is capable of measuring ground-plane level antenna radiation pattern measurements. Both facilities cover the frequency range extending from 800 MHz up to 6000 MHz. Independent antenna testing services are conducted through the AEWL for private industry, government agencies and other academic institutions. The AEWL has conducted $2.0M in funded research since 2003 from private industry and federal agencies.

This seminar presentation will provide an overview of the AEWL's hardware/software capabilities along with its recent research areas.

Biography:
Daniel N. Aloi is an Associate Professor in the Electrical and Computer Engineering Department and the Founding Director of the Applied Electromagnetics and Wireless Lab at Oakland University in Rochester, Michigan. He received his B.S., M.S. and Ph.D. degrees in electrical engineering from Ohio University in 1992, 1996 and 1999, respectively. He has been employed at Oakland University since January 2002. Dr. Aloi was a Sr. Project Engineer at OnStar, Inc. (2000-2001) and a Visiting Assistant Professor at Ohio University (1999-2000). His research areas include applied electromagnetics and various areas of the global positioning system (GPS) in the automotive and aviation industries. Dr. Aloi has attracted $1.8M dollars in external funding as PI, authored over 40 technical papers and obtained 5 patents. He is an Associate Editor for the IEEE Transactions on Aerospace and Electronic Systems in the area of navigation and for the SAE Journal on Passenger Vehicles: Electrical and Electronic Systems.

Schedule:
6:00 PM – Intro
6:15 PM – Presentation by Speaker

Refreshments Provided
Public Invited