IEEE
Celebrating 125 Years
of Engineering the Future

Orlando Section

http://www.ieee.org/orlando

CHAIRMAN
Donghui Wu, Ph.D.
donghui.wu@ieee.org
321-281-4561 - Office
321-946-0648 – Mobile
321-281-4499 - Fax

VICE CHAIRMAN
Xun Gong, Ph.D.
xungong@mail.ucf.edu
407-823-5762 - Office
407-823-5835 - Fax

TREASURER
Kalpathy Sundaram, Ph.D.
sundaram@mail.ucf.edu
407- 823-5326 – Office

SECRETARY
Michael "Mike" Orlovsky
mcorlovsky@ieee.org
407-356-7659 - Office
410-979-0476 - Cell
407-356-5188 - Fax

CHAPTERS CHAIR
Slavica Malobabic
smalobabic@ieee.org
407-668-9885 - Cell
407-823-5930 - Fax

Junior Past Section Chair
Thomas M. Wandeloski
Martin S. (Steve) Karlovic
karlovic@ieee.org
407-306-2351 - Office
321-217-3320 – Mobile

Senior Past Section Chair
Thomas M. Wandeloski
twandeloski@ieee.org
407-474-8488 - Office
407-323-7851 - Fax

MEMBER DEVELOPMENT
William (Bill) Hortos, Ph.D.
whortos@embarqmail.com
407-876-4039 - Office
407-401-3996 - Cell

Celebrate IEEE 125th Anniversary

and

IEEE Orlando Section 50th Anniversary

Saturday, May 9th, 2009, 1:00pm – 9:00 pm
Orlando Science Center, Founder's Room
777 E Princeton St
Orlando, Florida, USA
Free parking at Main Garage, Free Admission, Bring Family and Friends!

1. **Exhibitions:** *50 years of IEEE Orlando Section: Past, Present and Future*
Time: 13:00 - 21:00. Outside Founder's Room
NEW!! ***UCF Robotics Team Demonstration, 1:00pm - 5:00pm***

2. Afternoon Presentations: 1:00pm – 5:00pm
2.1 13:00 - 14:00 **Featured Talk:** Direct to Power
By Mr. Greg Rawlins, Chief Staff Scientist, Parkervision Inc.

2.2 14:00 - 14:30 Engineering Leadership
By Dr. Michael Hassan, Inventor, Chair, Consultant Networks, IEEE Orlando Section

2.3 14:30 - 15:00 Applications of 3D Computer Graphics
By Mr. Nathan McDaniel, McDaniel Software, Inc.

2.4 15:00 - 15:15 Emerging Technologies, the IEEE, and YOU !
By Dr. David E. Flinchbaugh, P.E., Inventor, I.E.E.E. Life Fellow

2.5 15:15 - 15:30 Using the IEEE as a Career-Building Resource
By Dr. David E. Flinchbaugh, P.E., Inventor, I.E.E.E. Life Fellow

2.6 15:30 - 15:45 Antennas and Propagation / Microwave Theory and Techniques
By Dr. Xun Gong, Chair, AP/MTT Chapter, IEEE Orlando Section

2.7 15:45 - 16:00 Control Systems/Robotics and Automation/Systems, Man, and Cybernetics
By Dr. William Hortos, Chair, CS/RA/SMC Chapter, IEEE Orlando Section

2.8 16:00 – Orlando Section Showcase & IEEE Video Presentations

3. 6:00pm – 7:00pm Reception & Past Section Officers Forum
Speakers lineup: George McClure, David Flinchbaugh, Jorge Medina, Tom wandeloski and many others

4. **7:00 pm Dinner**

Orlando Section *is established in 1959 and serving over 1,400 members in Orange, Osceola, Seminole, Lake and Sumter counties.*

IEEE is the world's largest technical professional association and a leading authority on technology-related matters. In 2009, IEEE is commemorating 125 years of ingenuity and innovation in engineering and technology with events and activities supporting the anniversary theme "Celebrating 125 Years of Engineering the Future." The year-long IEEE celebration includes local and global member and customer events; IEEE Engineering the Future Day on 13 May 2009.
http://www.ieee.org/

Featured Talk

Thermodynamic Theory of Communications with an emphasis on RF Power Transmitters

Claude Shannon's paper "A Mathematical Theory of Communication", in 1948, represented a pivotal point in the history of communications and information theory. Few realize the impact of thermodynamics on this theory. Yet the reverse action of information source conversion to physical communication processes has escaped analogous fundamental scrutiny. However, the principle of Thermodynamics and Information Theory combine to form a unified treatment of transmitter, channel and receiver. Beyond the qualitative satisfaction of unification some practical insights evolve from employing the 1st and 2nd Laws of Thermodynamics in the architectural synthesis of transmitters and receivers, particular in the simultaneous optimization of efficiency and waveform quality.

About the Speaker

Greg Rawlins began his education at FTU which later became UCF where he received his BSEE and MSEE. Greg has over 31 years experience in Communications Systems Architecture Design and Wireless IC development (Tactical Communications, WLAN, 3G, 4G and Custom). Greg is currently Chief Staff Scientist for ParkerVision Inc., where he held dual roles as both the CSS and VP of Engineering. Greg has more than 70 patents issued in Wireless and Communication Systems, has written several papers on spread spectrum application and RF power transmitter design and electronic warfare FDM platforms.

- 1987 Engineer of Year Award IEEE (Vehicular Technologies)
- 1995 Entrepreneur of the Year IEEE (Orlando Chapter)

Greg's work experience began at Emerson Electronics, then onto Lockheed Electronics, and in 1987 founded his own company, Signal Technologies Inc. Programs worked included IEEE 802.11 Standard, Developed Universal Transceiver and Radio Platforms **ECIT/JCIT** (Enhanced and Joint Communications Information Terminal), **MATT** Radio (Multi-Mission Advanced Tactical Terminal), MDR210-A, Success Radio (Air Force I) Maximal Ratio Post Detection Combiners, Deep Space Probes, Laser Radar, and other systems for NRL (Naval Research Lab), Army Airborne Command, and various government agencies.