



# RF Design and Antenna Development Training Classes Provided by WRC and TAG

## *Software Defined Radios Class June 22-26 at WRC*

**WAKE FOREST, N.C. and VIRGINIA BEACH, Va. (May 11, 2020)** – The Wireless Research Center and The Ascendancy Group are hosting training classes for engineers, developers, and technical teams for RF design and antenna development.

The Wireless Research Center (WRC) is an independent, private nonprofit dedicated to applied research driving communications innovation. The WRC has the expertise and equipment to provide research, development, engineering, and testing of antenna, radio frequency and other wireless technologies as an International Organization for Standardization (ISO) accredited organization.

The WRC's focus on innovation and applied research extends to support federal government initiatives and the U.S. Department of Defense and suppliers. The WRC's partnership with The Ascendancy Group (TAG) includes serving as a supplier of wireless technology expertise and testing services.

"We are proud to offer this training and support TAG as a supplier of wireless development expertise and testing services," said WRC Senior Engineer John Swartz, who leads coordination for government initiatives. Swartz joined the WRC with more than 30 years of experience in electrical engineering performing research and development for defense, medical, industrial and university labs, including Booz Allen Hamilton and RTI International.

The joint TAG and WRC class, "[Principles and Applications of Software Defined Radios](#)," will be conducted June 22-26 at the WRC headquarters in Wake Forest, N.C. The class provides the technical background and practical experience to understand the use of software defined radios (SDRs) for communications, testing and measurement, and RF system development.

With prior coordination, participants may bring devices for testing reception and analysis of measurements. Using both presentations, simulations, and hands-on, lab-based examples, participants will:

- Review traditional hardware and current SDR radio architectures.
- Install and operate several SDR platforms and tools sets.
- Use SDRs for reception and transmission of voice and data, and RF test and measurement tools.
- Learn how SDRs can be used for rapid prototyping and design of RF systems.

"The WRC is a valued teammate of ours," said TAG founder and President Cameron Christie. "We are fortunate to leverage the WRC's experience, expertise and equipment on behalf of our clients to provide research, development, engineering and testing of antenna, RF and wireless technologies."



TAG offers many other training classes including basic radio propagation and antennas class to teach an understanding of how antennas are made to yield specific properties and operate effectively in specific environments. Swartz is a lab instructor in the class teaching basic antenna theory and modeling using EZNEC software, as well as antenna construction and testing to support field expedient operations.

A future class is in development at the WRC headquarters for advanced antenna simulation modeling and prototyping. The class will use tools including HFSS and CST to simulate advanced antennas and arrays. The class also includes comparing simulations to actual anechoic chamber measurements at the WRC headquarters.

For more information about TAG training, please visit [www.theascendancygroup.com](http://www.theascendancygroup.com)

For more information and registration details, please contact Brian Smith at [brian.smith@theascendancygroup.com](mailto:brian.smith@theascendancygroup.com)

### **About The Ascendancy Group**

The Ascendancy Group (TAG) is a service-disabled veteran owned small business with a government team of former members of the Department of Defense, federal law enforcement and the U.S. intelligence community. For more information, visit [www.theascendancygroup.com](http://www.theascendancygroup.com)

### **About the Wireless Research Center**

The WRC is a nonprofit organization supporting clients globally with unique applied research, engineering services and testing for communication technologies. The WRC accelerates the rate of scientific innovation as a wireless network design and Internet of Things (IoT) consultant and certified testing facility for the CTIA and many wireless network providers. The WRC fosters innovation and collaboration among commercial partners, industry groups, academic institutions and research organizations. The WRC is leading the deployment and operation of advanced wireless 5G testbeds for the nation's third advanced wireless research platform supported by an industry consortium and a \$24 million grant from the National Science Foundation. Initial testbeds for autonomous drone and mobility systems are planned for Raleigh and Cary in North Carolina. For more information, visit [www.wrc-nc.org](http://www.wrc-nc.org)

For more information about the WRC work with the federal government, please visit [www.wrc-nc.org/federal-government](http://www.wrc-nc.org/federal-government)

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