The Automatic Radio Frequency Techniques Group (ARFTG) is a technical organization interested in all aspects of RF and microwave test and measurement. ARFTG was originally set up in 1972 to help end-users get the most from the latest generation of test and measurement equipment. As the high-frequency measurement field has continued to evolve, so has ARFTG, which now has more than 600 members worldwide. ARFTG’s core mission is education, and it achieves this not only by hosting conferences, workshops, and training courses covering a wide range of topics in RF, microwave, and millimeter-wave measurement but also by awarding fellowships for students.

Moreover, ARFTG’s close association with the top vendors of measurement instrumentation ensures excellent equipment exhibits at its conferences. Vendors often choose to launch their new product ranges during these exhibits. The extended breakouts from conference technical sessions enable excellent interactions to take place among colleagues, experts, and vendors.

The ARFTG sponsors two meetings each year—one in the spring and one in the fall. Events that take place at these meetings are as follows:

Spring—During MTT-S Microwave Week
- a one-day microwave measurement conference on Friday
- two workshops cosponsored by IEEE International Microwave Symposium
- a nonlinear vector network analyzer (NVNA) users’ forum
- vendors’ exhibition.

Fall—A Four-Day Symposium
- a one-and-a-half day microwave measurement conference
- a one-and-a-half day microwave measurement training course
- two workshops on specific topics (e.g., nonlinear measurement, signal integrity, RF power amplifier design, and millimeter-wave measurement)
- an NVNA users’ forum
- vendors’ exhibition.

ARFTG at MTT-S Microwave Week 2015
ARFTG is an integral part of IEEE Microwave Theory and Techniques Society (MTT-S) Microwave Week in Phoenix, Arizona and will take place on the last day of that week (Friday, 22 May). So if you have any interest in measurements, particularly high-frequency measurements (anything from 1 kHz to 1 THz), ensure that you make the ARFTG conference part of your schedule for the microwave week. You will find that the atmosphere at ARFTG is informal and friendly. The chances are you will come away with much more than you came with—perhaps some new ideas to help with your current projects and some new technical contacts to use in the future.

Oral technical sessions at ARFTG conferences (Figure 1) are conducted in a single-track style, with papers on topical subjects that are both theoretical and practical, address both end-user and manufacturer, and cover both modeling and measurement. Next to oral presentations, authors may present their work as poster papers in the open forum that jointly runs with the vendor exhibition (Figure 2).

The theme for this year’s conference is “Measurements and Techniques for 5G Applications.” In particular, papers were solicited in areas including:
- nonlinear/large-signal network analysis
- multiple-input, multiple-output measurements
- signal to interference-plus-noise ratio
- power and noise measurement techniques
- adaptive communications such as cognitive radio
- wideband measurement for high-speed communication systems.

Contributions in other areas of RF, microwave, and/or millimeter-wave measurement were also welcomed.
The most stimulating part of the ARFTG experience is the opportunity to directly interact on a one-to-one basis with colleagues, experts, and vendors in the RF and microwave test and measurement community. The somewhat open conference scheduling and the presence of many acknowledged experts in the field of high-frequency measurements make it easy to get questions answered and to learn about new subject areas. The following links will give you an idea of the types of presentations given at ARFTG conferences:

- [http://www.arftg.org/video/Conf81_Sess2_1Martens.html](http://www.arftg.org/video/Conf81_Sess2_1Martens.html)
- [http://www.arftg.org/video/Conf81_Sess3_2VandenBossche.html](http://www.arftg.org/video/Conf81_Sess3_2VandenBossche.html)
- [http://www.arftg.org/video/Conf81_Sess1_1Ridler.html](http://www.arftg.org/video/Conf81_Sess1_1Ridler.html)
- [http://www.arftg.org/video/Conf81_Sess1_4Williams.html](http://www.arftg.org/video/Conf81_Sess1_4Williams.html)

**Need to Know More?**

ARFTG’s Web site (www.arftg.org) usually has all you need to know about upcoming events. This includes our conference during Microwave Week 2015. Alternatively, there are some key contacts within the ARFTG organizing group as follows:

- for sponsorship information, contact Joe Gering at sponsorship@arftg.org
- for exhibits information, contact Rusty Myers at exhibits@arftg.org
- for NVNA users’ forum information, contact Patrick Roblin at nvna_usersforum@arftg.org
- for conference technical program information, contact Nick Ridler at nick.ridler@ieee.org
- for all other conference matters, contact Dave Blackham at dave.blackham@ieee.org.

**The atmosphere at ARFTG is informal and friendly.**

**Joe Hudy**

Joe Hudy is a 17-year-old Phoenix high-school student who amazed President Obama with his Extreme Marshmallow Cannon at the White House Science Fair in February 2012 at the age of 14. Joe has been named one of the ten smartest kids in the world, and he has just become the youngest participant in Intel’s internship program. Joe is a strong advocate of the Maker movement and he participate in Maker Faires across the globe—Joe was a keynote speaker at the first International Maker Faire in Rome—he will be attending Maker Faires in Shenzhen, California, New York, Paris, White House, and again in Rome. Joe is the inventor of the $3 \times 3 \times 3$ LED Cube Arduino Shield and the SMD LED Arduino Shield. Joe’s blog, “Look What Joey’s Making,” reminds visitors “Don’t be bored… make something!” This slogan crafted by Joe has been adopted recently by the White House to inspire various science, technology, engineering, and mathematics initiatives.

**IMS2015 Opening and Closing Plenary Sessions** (continued from page 53)