



# IMS STUDENT DESIGN COMPETITION



09:30–17:00 | Tuesday, 6 June 2017  
Hawai'i Convention Center, Exhibit Hall

**Organizers:** Xiaomeng Gao, *Adnoviv LLC*; Ashikur Rahman, *University of Hawai'i at Mānoa*; Peter Orel, *University of Hawai'i at Mānoa*

**Abstract:**

The IMS2017 Student Design Competition (SDC) presents an opportunity for students to demonstrate their mastery of microwave engineering principles. Each competition is based on design rules and a figure of merit set by the competition organizers. Students bring their systems to the competition and are ranked on the demonstrated performance based on the aforementioned figure of merit.

This year, the SDCs span 11 technical areas, listed below. Some of these challenges are new to keep pace with ever-evolving microwave systems and techniques. The SDCs are sponsored by the MTT-S Technical Committees with measurement equipment provided by leading technical companies in microwave engineering. The hope is to nurture innovation among students and help them build a strong foundation for their career. All SDCs will take place on Tuesday with the competition winners recognized at the Student Awards Luncheon on Thursday. The winning teams will be invited to submit an article to IEEE Microwave Magazine to share their design techniques and experience with the greater microwave community.

**Agenda:**

Student Design Competition	Organizer(s)	Sponsoring Technical Committee(s)
Carrier Aggregation BAW Quadplexer Module	Holger Maune Andreas Link Andreas Tag	MTT-2
High Efficiency Power Amplifier	Joe Staudinger Kiki Ikossi Joe Qiu James Komiak	MTT-5
5G Mobile Com Receiver Module	Rüdiger Quay Nils Pohl Roger Kaul	MTT-6, MTT-14, MTT-16, MTT-20
Dual-Band Variable-Attenuation Notch Filters	Andrew Guyette Eric Naglich	MTT-8
Power Amplifier Linearization through DPD	Pere L. Gilabert Gabriel Montoro David López-Bueno Hermann Boss	MTT-9, MTT-11
High-Sensitivity Fast-Response Motion Sensing Radar	Changzhi Li T.-S. Jason Horng Olga Boric-Lubecke	MTT-10, MTT-20
Magnetless Parametric Circulator Design	Ryan Toonen	MTT-13
Wideband Baluns	Robert Caverly	MTT-17
High Dynamic Range Mixer	Bert Henderson Edmar Camargo	MTT-22
Apps for Radio-Frequency Nanotechnology	Davide Mencarelli Johannes A. Russer Fabio Coccetti	MTT-25
Wireless Power Transmission	Simon Hemour	MTT-26, MTT-10, MTT-20