

Texas Symposium on Microwave and Wireless Circuits and Systems

Winners of the Student Poster/Research Awards

2011

First Place

Short Flow BEOL CMOs Process for mm-wave Passive Circuits

Daniel Schlieter

University of Texas at Dallas

2012

First Place (tie)

Microwave Applications of ϵ -Near-Zero Metamaterials Jason

C. Soric

University of Texas at Austin

First Place (tie)

Realizing Efficient Wireless Power Transfer in the Near-Field Region Using Electrically Small Antennas

Ick-Jae Yoon

University of Texas at Austin

Second Place

Design of Tunable Metamaterial Based On-Chip Spiral Inductor

Bayaner Arigong

University of North Texas

2013

First Place

Transparent and Conformal Microstrip Antennas for CubeSat Applications

Nicole Neveu, Mauricio Garcia, Richie Dettloff and Joseph Casana

University of Houston

Second Place

Waveform and Load Impedance Optimization for Adaptive Radar

Matthew Fellows and Lauren Hurley

Baylor University

Third Place (tie)

System-in-Package Integration using FR-4 Laminates

Supreetha Aroor

University of Texas at Dallas

Third Place (tie)

Broadband Radiator for Antenna-in-Package and Antenna-on-Chip Applications

Richard Pierce

University of Texas at Dallas

2014

First Place

Magnet-less Non-Reciprocity Through Angular-Momentum Biasing

Nicholas Estep

University of Texas at Austin

Second Place

Alleviating Airport Wi-Fi Congestion: A Comparison of 2.8 GHz and 5 GHz Wi-Fi Usage and Capabilities

Zachary Hays and Grant Richter

Baylor University

Third Place

Design of 180° Directional Coupler with Arbitrary Branch Lengths

Bayaner Arigong, Jin Shao, Mi Zhou, Jun Ding, and Han Ren

University of North Texas

2015

First Place

Electrokinetic Actuation of Non-Toxic Liquid Metal for Reconfigurable RF Devices

Ryan Gough, Jonathan Dang, and Andy Morishita

University of Hawaii at Manoa

Second Place

An Investigation of Dual-band Fabry-Pérot Resonant Cavity Antennas

Krishna Kota

University of Houston

Third Place

Investigation of 433 MHz and 915 MHz On-Body Wave Propagations
Dong Xue
Baylor University

2016

First Place

Investigation of Human Micro-Doppler Features in Foliaged Environments
Willis Troy
Baylor University

Second Place

Electrically-Small Folded Cylindrical Helix Antenna for Wireless Body Area Networks
Dong Xue
Baylor University

Third Place

A Study on Linearity vs. LTE Signal Bandwidth and Supply Voltage for High Efficiency SiGe Power Amplifier Design with CW Load-Pull
Jerry Tsay
Texas Tech University

2017

First Place

Active Electromagnetic Devices for Next-Generation Wireless Communication Systems
Ahmed Kord
University of Texas at Austin

Second Place

Development of a Continuous Wave Radar for Short Range Doppler Measurements
Willis Troy
Baylor University

Third Place

A Dual-Mode Circularly Polarized Microstrip Antenna
Xinyu Liu
University of Houston

2018

First Place

Development of a Passive Multistatic Weather Radar System

Andrew Byrd

University of Oklahoma

Second Place

Classification of Human Head Motion Patterns using Creeping Wave Propagations

Drew Bresnahan

Baylor University

Third Place

A Symmetrical Two-Way Power Divider with Impedance Transforming Property

Mi Zhou

University of North Texas

2019

First Place

On-chip UWB Signal Generation for Complex Dielectric Spectroscopy System with a Near-field Contact-less Sensing Unit in 65 nm CMOS

Elif Kaya

Texas A&M University

Second Place

Broadband High-Efficiency Mm-Wave 24-42.5 GHz SiGe PA Design Using Stacked vs. Cascaded Topologies

Jerry Tsay

Texas Tech University

Third Place (tie)

SIW Microstrip Cavity Resonators with a Sensing Aperture

Chaoxian Qi

University of Houston

Third Place (tie)

3D-Printed Tunable Helical Resonators for Miniaturized VHF Filters

Eivy Arroyo-Diaz

University of Oklahoma

2020

First Place

Highly-Efficient Broadband Medium Power Amplifier Designs in 40 nm GaN and 22nm CMOS for mm-Wave 5G

Jill Mayeda
Texas Tech University

Second Place

Performance Improvement of 300-GHz On-Chip Patch Antenna using a Low-Cost Quad Flat No-Leads (QFN) Packaging

Harshpreet Singh Bakshi
University of Texas Dallas

Third Place (tie)

Partial Load-Pull Extrapolation Using Deep Image Completion

Austin Egbert
Baylor University

Third Place (tie)

An Ink-jet Printed Flexible Monopole Antenna for Super Wideband Applications

Md. Rabiul Hasan
Washington State University Vancouver

Third Place (tie)

Power Amplifier Load Impedance Sensing for Phased Arrays

Devon Donahue
University of Colorado Boulder

2021

First Place

Resilience Against Eavesdropping Attacks through Antenna Subset Modulation

Qiang Zhou
Rice University

Second Place (tie)

Driver Head Motion Monitoring Using a mm-Wave FMCW Radar

Drew G. Bresnahan
Baylor University

Design of A Robust Noncontact Vital Signs (NCVS) Monitoring System Using Software defined radio (SDR)

Yang Liu
Texas Tech University

Third Place (tie)

Black Phosphorus Photoconductive Terahertz Antenna - 3D Modeling and Experimental Reference Comparison
Jose Santos Batista
University of Arkansas

Constraint Based Elementwise Array Impedance Tuning Optimization Algorithm for Dual-Beam Transmission
Adam Goad
Baylor University

2022

First Place

Acoustic Delay Lines in Thin-Film Lithium Niobate on Silicon Carbide
Sinwoo Cho
University of Texas at Austin

Second Place (tie)

A 410-GHz Detector using AC-coupled Substrate-Integrated Waveguide Slot Antenna in CMOS
Md. Toaha Anas
Oklahoma State University

A Low Loss Reconfigurable Plasma Impedance Tuner for Real Time, Frequency Agile, High Power RF Applications
Justin Roessler
Baylor University

2023

First Place

Bandwidth Enhancement Techniques for Extended Efficiency Range Doherty Power Amplifiers
Debatrayee Roychowdhury
Arizona State University

Second Place

A Novel Direction of Arrival Estimation Planar Monopulse Receiver
Hanxiang Zhang
Florida A&M University – Florida State University

Third Place

Acoustic Resonator at 50 GHz with High Q and k^2
Jack Kramer
University of Texas at Austin

2024

First Place

4×4 UWB Phased Array Antenna with $>51^\circ$ Far-field Scanning Range for Wireless Power Transfer Application

Adnan Basir Patwary

University of Texas at Dallas

Second Place

Nine-Dimensional Gradient Optimization for Automated RF Power Amplifier Design

Adam Goad

Baylor University

Third Place

Folded Reflectarray Antenna Design and Fabrication at 100 GHz

Farhat Abbas

University of Texas at Dallas

2025

First Place

A D-Band InP Power Amplifier Featuring Fully AI-Generated Passive Networks

Song Hang Chai

University of Texas at Austin

Second Place (tie)

Inverse Design Microwave and THz Tunable Device

Saeed Zolfaghary Pour

Florida A&M University - Florida State University

A Blocker-Tolerant Mm-Wave Low-Noise Amplifier Utilizing Doherty Active Load Modulation for Linearity Enhancement

Hao Yu

University of Texas at Austin