

Student Paper Competition

14:00–16:00

Ballroom A

The Student Paper Competition has become one of the largest technical events at the IMS. The purpose of the competition is to determine and acknowledge the best student work of the year in the MTT-S. This year we received 183 student papers, approximately 20% of all submitted papers. Each student paper went through the regular review process by the Technical Program Committee. Approximately 50% of the submitted papers were accepted for presentation. Based on the review scores, only 24 of the accepted student papers were selected as finalists. Many of the student paper finalists were ranked by their reviewing subcommittee as the best paper they reviewed. The finalists are given complimentary registration for IMS 2007, complimentary tickets to the MTT-S Awards Banquet, and travel subsidies.

“A Single-Chip 25 pJ/bit Multigigabit 60 GHz Receiver Module,” S. Sarkar, J. Laskar, Georgia Institute of Technology, USA

“Passive RF Receiver Design for Wireless Sensor Networks,” P. V. Kolinko, L. E. Larson, Univ. of California San Diego, USA

“Method for High-Precision Radar Distance Measurement and Synchronization of Wireless Units,” S. Roehr, M. Vossiek, P. Gulden, Clausthal Univ. of Technology, Germany

“An Active Electronic Ka-Band Antenna Beam-Forming Network based on Injection-Locked Local Oscillators,” H. Grubinger, H. Barth, R. Vahldieck, ETH Zürich, Switzerland

“Radial Absorbers for Conformal Time-Domain Methods: A Solution to Corner Problems in Mesh Truncation,” K. Sankaran, C. Fumeaux, R. Vahldieck, ETH Zürich, Switzerland

“2 GHz Automatically Tuned Q-Enhanced CMOS Bandpass Filter,” J. K. Nakaska, J. W. Haslett, Univ. of Calgary, Canada

“A DC Voltage-Dependent Switchable Thin-Film Bulk-Wave Acoustic Resonator Using Ferroelectric Thin Film,” X. Zhu, J. D. Phillips, A. Mortazawi, Univ. of Michigan, USA

“RF Linearity and Nonlinear Source Resistance in AlGaIn/GaN HFETs,” Y. Liu, R. J. Trew, G. Bilbro, North Carolina State Univ., USA

“A Nondisjoint Hexahedral Space Discretization for the Finite-Volume Technique,” K. Krohne, R. Vahldieck, ETH Zürich, Switzerland

“Circuitual and Experimental Demonstration of a 3D Isotropic LH Metamaterial Based on the Rotated TLM Scheme,” M. Zedler, P. Russer, C. Caloz, Technische Universität München

“A Gated Envelope Feedback Technique for Automatic Hardware Conditioning of RFIC PA's at Low Power Levels,” N. G. Constantin, P. J. Zampardi, M. N. El-Gamal, McGill Univ., Canada

“Multilayer Quasielliptic Filters using Dual-Mode Resonators on Liquid Crystal Polymer Technology,” R. Bairavasubramanian, J. Papapolymerou, Georgia Institute of Technology, USA

The student finalists will present their papers at their appropriate regular sessions and make special presentations at the Interactive Forum on Tuesday from 14:00–16:00. All symposium participants are welcome and encouraged to visit the student papers during the Interactive Forum, at which time they will also be evaluated by a group of judges. Six top papers and four honorable mentions will be selected to receive cash awards, certificates, and gifts. These will be announced and presented during the Student Awards Luncheon on Thursday. We are very pleased to announce the finalists for the IMS 2007 Student Paper Competition:

“Design and Testing of a Thermally Stable Filter Using Bimetal Compensation,” B. F. Keats, R. R. Mansour, R. B. Gorbet, Univ. of Waterloo, Canada

“Moments-Based Computation of Intermodulation Distortion of Mixer Circuits,” D. Tannir, R. Khazaka, McGill Univ., Canada

“Semianalytical Formulation for the Stability Analysis of Coexisting Solutions in Coupled-Oscillator Systems,” A. Collado, A. Suarez, S. Sancho, Univ. of Cantabria, Spain

“Analysis and Suppression of Memory Effects in Envelope Elimination and Restoration (EER) Power Amplifiers,” P. Fedorenko, J. S. Kenney, Georgia Institute of Technology, USA

“Nontoxic Liquid-Metal 2–100 GHz MEMS Switch,” C. Chen, J. Whalen, D. Peroulis, Purdue University, USA

“Broadband Quadrature Hybrid Design Using Metamaterial Transmission Line and its Application in the Broadband Continuous Phase Shifter,” C. Lee, K. M. Leong, T. Itoh, Univ. of California Los Angeles, USA

“Dual-Mode Metamaterial with Backward- and Forward-Wave Selectivity,” A. Lai, K. M. Leong, T. Itoh, University of California Los Angeles, USA

“Design and Characterization of Novel Paper-Based Inkjet-Printed RFID and Microwave Structures for Telecommunication and Sensing Applications,” L. Yang, M. M. Tentzeris, Georgia Institute of Technology, USA

“Time-Domain Impedance Adaptors for Pulse-Based Systems with High QRC Loads,” X. Wang, L. P. Katehi, D. Peroulis, Purdue Univ., USA

“Traveling Wave Spatial Quantized Analog-to-Digital Conversion,” M. Jarrahi, T. H. Lee, Stanford University, USA

“Oscillation Condition and Uncertainty Principle,” J. Kwon, I. S. Kim, Kyunghee Univ., South Korea

“Distributed Body-Worn Transceiver System with the Use of Electrotexile Antennas,” Y. Ouyang, W. J. Chappell, Purdue, USA

TUESDAY