

ISSCC AWARDS

2005 Lewis Winner Award for Outstanding Paper

"A Split-ADC Architecture for Deterministic Digital Background Calibration of a 16b 1MS/s ADC"

John McNeill¹, Michael Coln², Brian Larivee²

¹Worcester Polytechnic Institute, Worcester, MA

²Analog Devices, Wilmington, MA

2005 Jack Kilby Award for Outstanding Student Paper

"A CMOS Temperature Sensor with a 3s Inaccuracy of $\pm 0.1^\circ\text{C}$ from -55°C to 125°C "

Michiel Pertijs, Kofi Makinwa, Johan Huijsing

Delft University of Technology, Delft, The Netherlands

2005 Jack Raper Award for Outstanding Technology-Directions Paper

"Towards Chip-Scale Atomic Clocks"

Clark T.-C. Nguyen¹, John Kitching²

¹DARPA, Arlington, VA and University of Michigan, Ann Arbor, MI

²NIST, Boulder, CO

2005 Takuo Sugano Award for Outstanding Far-East Paper

"Circuit Techniques for a 40Gb/s Transmitter in 0.13 μm CMOS"

Jaeha Kim¹, Jeong-Kyoum Kim¹, Bong-Joon Lee¹, Moon-Sang Hwang¹, Hyung-Rok Lee¹, Sang-Hyun Lee², Namhoon Kim², Deog-Kyoon Jeong², Wonchan Kim¹

¹Seoul National University, Seoul, Korea

²Silicon Image, Sunnyvale, CA

2005 Jan Van Vesse Award for Outstanding European Paper

"A Reconfigurable EDGE Baseband and Multimedia Handset SoC with 6Mb Embedded DRAM"

A. Cofler¹, F. Druilhe¹, D. Dutoit¹, M. Harrand²

¹ST Microelectronics, Grenoble, France

²ST Microelectronics, Crolles, France

2005 Evening Panel Award

"RF MEMS: Fact or Fiction?"

Organizer:

Ken Cioffi

Discera, San Jose, CA

Moderator:

Bob Puers

Katholieke Universiteit Leuven, Leuven, Belgium

Panelists:

Natalino Camilleri, RF & Wireless Design Services, Cupertino, CA

Dan Hyman, XCom Wireless, Signal Hill, CA

Bill Krenik, Texas Instruments, Dallas, TX

Clark, T.-C. Nguyen, DARPA, Arlington, VA & University of Michigan, Ann Arbor, MI

Tomoki Uwano, Matsushita, Osaka, Japan

Benedetto Vign, ST Microelectronics, Milano, Italy

2005 Special-Topic Evening Award

"SRAM Design in the Nanoscale Era"

Organizer:

Sreedhar Natarajan

Emerging Memory Technologies, Kanata, Canada

Co-Organizer:

Alex Shubat

Virage Logic, Fremont, CA

Speakers:

Robert Baumann, Texas Instruments, Dallas, TX

Soon Moon Jung, Samsung, Yongin-City Kyungi-do, Korea

Harold Pilo, IBM, Essex Junction, VT

Yervant Zorian, Virage Logic, Fremont, CA

2006 Beatrice Winner Award for Editorial Excellence

"A 375mW Quadrature Bandpass $\Delta\Sigma$ ADC with 90dB DR and 8.5MHz BW at 44MHz"

Richard Schreier¹, Nazmy Abaskharoun¹, Hajime Shibata², Iuri Mehr¹, Steve Rose¹, Donald Paterson¹

¹Analog Devices, Wilmington, MA

²Analog Devices, Tokyo, Japan

2006 Beatrice Winner Award for Editorial Excellence

"A 13.56MHz RFID System Based on Organic Transponders"

Eugenio Cantatore¹, Thomas C.T. Geuns¹, Arnold Gruijthuisen¹, Gerwin Gelinck¹, Steffen Drews², Dago de Leeuw¹

¹Philips, Eindhoven, The Netherlands

²Philips, Hambrug, Germany

IEEE SOLID-STATE CIRCUITS SOCIETY AWARDS

2006 IEEE Gustav Robert Kirchhoff Award

"For fundamental contributions to analog signal processing techniques"

Gabor C. Temes

Oregon State University, Corvallis, OR

2006 IEEE Donald O. Pederson Award in Solid-State Circuits

"For pioneering contributions to the design of high-performance digital integrated circuits and systems"

Mark Horowitz

Stanford University, CA

2006 IEEE David Sarnoff Award

"For development of HBT power amplifiers leading to their commercialization in wireless communications"

Mau-Chung Frank Chang

University of California, Los Angeles, CA

2005 SSSC Outstanding Chapter Award to Denver, CO

Receiving for the Denver Chapter,

Alvin Loke (Chair),

Don McGrath (Vice Chair),

Tin Tin Wee (Secretary/Webmaster),

Bob Barnes (Treasurer),

Randy Rannow, (Founding Chair)

2004 Journal of Solid-State Circuits Best Paper Award

"A Fully Integrated 24-GHz Phased Array Receiver in Silicon"

Xian Guan, Hossein Hashemi, Ali Hajimri

California Institute of Technology, Pasadena, CA

2006 IEEE Fellows

Bhupendra Ahuja

Intersil Corporation

For contributions to design of mixed signal complimentary metal oxide semiconductor (CMOS) integrated circuits for telecommunications and computer communications systems.

James Barton

Texas Instruments

For contributions to the design of digital signal processing integrated circuits.

Tohru Furuyama

Toshiba Corporation

For contributions to high speed dynamic random access memory (DRAM) design and technologies.

William Krenik

Texas Instruments

For contributions to integrated circuits and technology for wireless products.

Tadahiro Kuroda

Keio University

For contributions to low-power and high-speed very large scale integrated (VLSI) design.

Richard Spencer

University of California, Davis

For contributions to integrated circuits for digital communication, and magnetic recording.

David Su

Atheros Communications

For contributions to design of analog and mixed-signal integrated circuits for communications systems.

2005 A-SSCC/ISSCC Student-Design-Contest Winners

Pei-Yun Tsai, Tzi-Dar Chiueh

National Taiwan University, Taiwan

"A 1.1-V 9.9-mW MC-CDMA Downlink Baseband Receiver IC for Next-Generation Cellular Communication Systems"

Kangmin Lee, Se-Joong Lee, Donghyun Kim, Kwanho Kim, Gawon Kim, Joungho Kim, Hoi-Jun Yoo

KAIST, Daejeon, Korea

"Networks-on-chip and Networks-in-Package for High-Performance SoC Platforms"

Dan Wang, S.Z. Lou, D. Lau, E. Wang, G. Wong, Howard Cam Luong

Hong Kong University of Science & Technology, Hong Kong

"A 1.8-V 531-mW Single-Chip Single-Conversion CMOS Cable TV Tuner"

2006 DAC/ISSCC Student-Design-Contest Winners

OPERATIONAL CHIP DESIGN CATEGORY

Best Overall - 1st Place

Pierluigi Nuzzo^{1,2}, Geert Van der Plas², Fernando De Bernardinis¹, Liesbet Van der Perre², Bert Gyselinckx², Pierangelo Terreni¹

¹University of Pisa, Pisa, Italy,

²IMEC, Leuven, Belgium

"A 10.6mW/0.8pJ PowerScalable 1GS/s 4b ADC in 0.18µm CMOS with 5.8GHz ERBW"

2nd Place (tie)

Mona Safi-Harb, Gordon W. Roberts

McGill University, Montreal, Canada

"Increasing the Time Dynamic Range of Pulse Measurement Techniques in Digital CMOS"

2nd Place (tie)

Eric D. Marsman¹, Robert M. Senger¹, Richard B. Brown²

¹University of Michigan, Ann Arbor, MI,

²University of Utah, Salt Lake City, UT

"A DSP Enabled Microsystem for Cochlear Implants with Hybrid LC Clocking"

3rd Place

Chien-Chang Lin, Jia-Wei Chen, Hsiu-Cheng Chang, Chao-Ching Wang, Yi-Huan Ou Yang, Ming-Chih Tsai, Yao-Chang Yang, Jiun-In Guo, Jinn-Shyan Wang

National Chung-Cheng University, Chia-Yi, Taiwan

"A 160K Gates/4.5KB SRAM H.264 Video Decoder for HDTV Applications"

OPERATIONAL SYSTEM DESIGN CATEGORY

1st Place

H. Chan¹, A. Vila Casado¹, J. Basak¹, M. Griot¹, W. Weng¹, R. Wesel¹, B. Jalali¹, E. Yablonovitch¹, I. Verbauehede^{1,2}

¹University of California, Los Angeles, CA,

K.U. Leuven, Leuven, Belgium²

"Demonstration of Uncoordinated Multiple Access in Optical Communications"

2nd Place

Heemin Park, Jonathan Friedman, Mani B. Srivastava, Pablo Gutierrez, Vids Samanta, Jeff Burke

University of California, Los Angeles

"Illumimote: A High Performance Light Sensor Module for Wireless Sensor Networks"

3rd Place

D.C. Daly, D.F. Finchelstein, N. Ickes, N. Verma, A.P. Chandrakasan

Massachusetts Institute of Technology, Cambridge, MA

"An Ultra Low Power Wireless Micro-Sensor Node"

Honorable Mention

Babu I. Saincha

Indian Institute of Information Technology, Allahabad, India

"Phase Delay Based Collision Avoidance RADAR for Smart Automobiles"

CONCEPTUAL CATEGORY

1st Place

Kazunori Shimizu, Tatsuyuki Ishikawa, Nozomu Togawa, Takeshi Ikenaga, Satoshi Goto

Waseda University, Tokyo, Japan

"ASIC Implementation of LDPC Decoder Accelerating Message-Passing Schedule"