



ISSCC 2024 Awards

February 2024





ISSCC Awards

2023 Lewis Winner Award for Outstanding Paper

“Subtractive Photonic Waveguide-Coupled Photodetectors in 180nm Bulk CMOS”



Craig Ives



Ali Hajimiri

California Institute of Technology, Pasadena, CA

The Lewis Winner Award for Outstanding Paper

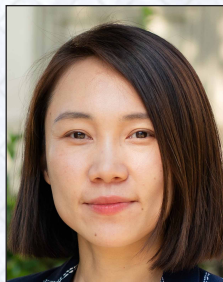
Lewis Winner served ISSCC for three decades (1958 to 1988) as Editor, Publisher, and Conference Coordinator. He was responsible, in considerable part, for establishing and maintaining the high standards of ISSCC publications and presentations. The Award in his honour is based on ratings by Conference attendees in the previous year.

2023 Lewis Winner Award for Outstanding Paper

“A 65nm CMOS Living-Cell Dynamic Fluorescence Sensor with 1.05fA Sensitivity at 600/700nm Wavelengths”



Fatemeh Aghlmand¹



Chelsea Hu^{1,2}



Saransh Sharma¹



Krishna K. Pochana¹



Richard M. Murray¹



Azita Emami¹

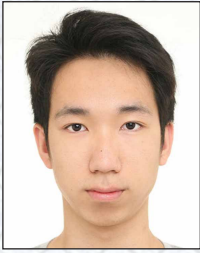
¹California Institute of Technology, Pasadena, CA

²Texas A&M University, College Station, TX

The Lewis Winner Award for Outstanding Paper

Lewis Winner served ISSCC for three decades (1958 to 1988) as Editor, Publisher, and Conference Coordinator. He was responsible, in considerable part, for establishing and maintaining the high standards of ISSCC publications and presentations. The Award in his honour is based on ratings by Conference attendees in the previous year.

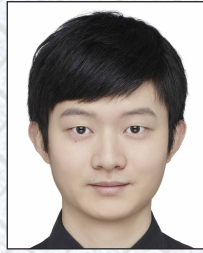
2023 Anantha P. Chandrakasan Award for Distinguished-Technical-Paper
“A 7.9fJ/Conversion-Step and 37.12aFrms Pipelined-SAR Capacitance-to-Digital Converter with kT/C Noise Cancellation and Incomplete-Settling-Based Correlated Level Shifting”



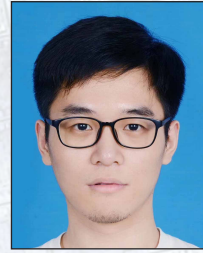
Jihang Gao¹



Linxiao Shen¹



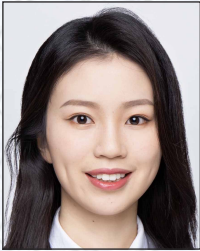
Heyi Li¹



Siyuan Ye¹



Jie Li¹



Xinhang Xu¹



Jiajia Cui¹



Yunhung Gao¹



Ru Huang¹



Le Ye^{1,2}

¹Peking University, Beijing, China

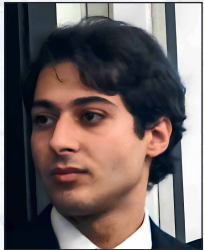
²Advanced Institute of Information Technology of Peking University, Hangzhou, China

Anantha P. Chandrakasan Award for Distinguished-Technical Paper

This Award is based on ITPC ratings at paper selection, as normalized at paper presentation time by members of the Awards & Recognition Committee (ARC). In recognition of the many decades of contribution by Anantha Chandrakasan, and his retirement as Conference Chair, this Award was renamed in his honour in 2019.

2023 Jan Van Vessel Award for Outstanding European Paper

“A 76.7fs-Integrated-Jitter and -71.9dBc In-Band Fractional-Spur Bang-Bang Digital PLL Based on an Inverse-Constant-Slope DTC and FCW Subtractive Dithering”



Simone M. Dartizio¹



Francesco Tesolin¹



Giacomo Castoro¹



Francesco Buccoleri¹



Luca Lanzoni¹



Michele Rossoni¹



Dmytro Cherniak²



Luca Bertulesi¹



Carlo Samori¹



Andrea L. Lacaita¹



Salvatore Levantino¹

¹Politecnico di Milano, Milano, Italy

²Infineon Technologies, Villach, Austria

The Jan Van Vessel Award for Outstanding European Paper

Jan Van Vessel served ISSCC as the first Chair of the European Program Committee from 1968 to 1974. The Award in his honour is based on ratings by Conference attendees in the previous year.

2023 Takuo Sugano Award for Outstanding Far-East Paper

“3D Wireless Power Transfer with Noise Cancellation Technique for -62dB Noise Suppression and 90.1% Efficiency”



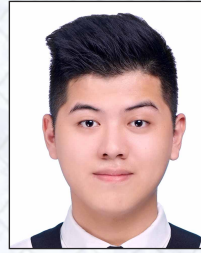
Fei Huang¹



Hsing-Yen Tsai¹



Chi-Yu Huang¹



Yu-Chun Luo¹



Ching-Ho Li¹



Shao-Chang Huang¹



Yi-Hsiang Kao¹



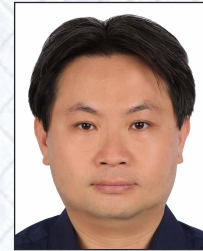
Ke-Horng Chen¹



Kuo-Lin Zheng^{1,2}



Ying-Hsi Lin³



Shian-Ru Lin³



Tsung-Yen Tsai³

¹National Yang Ming Chiao Tung University, Hsinchu, Taiwan

²Chip-GaN Power Semiconductor, Hsinchu, Taiwan

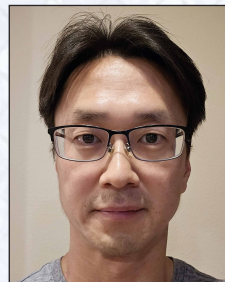
³Realtek Semiconductor, Hsinchu, Taiwan

The Takuo Sugano Award for Outstanding Far-East Paper

Takuo Sugano served ISSCC as an early member of what became the Far-East Program Committee, from 1967 to 1989. The Award in his honour is based on ratings by Conference attendees in the previous year.

2023 ISSCC Award for Outstanding Forum Presenter

“Circuit Designs for 200+Gb/s Transceivers”



Jihwan Kim
Intel, Hillsboro, OR

The Outstanding Forum-Presenter Award

This Award is based on Forum-attendee ratings from the previous year.

2023 ISSCC Award for Outstanding Forum Presenter

“Is an AI Accelerator All You Need? Overcoming Amdahl’s Law with Tightly-Coupled Heterogeneous Accelerators”



Angelo Garofalo

ETH Zurich, Zurich, Switzerland

The Outstanding Forum-Presenter Award

This Award is based on Forum-attendee ratings from the previous year.

2023 Demonstration Session Certificate of Recognition

“MetaVRain: A 133mW Real-Time Hyper-Realistic 3D-NeRF Processor with 1D-2D Hybrid-Neural Engines for Metaverse on Mobile Devices”



Donghyeon Han

With
Junha Ryu
Sangyeob Kim
Sangjin Kim
Hoi-Jun Yoo

Korea Advanced Institute of Science and Technology, Daejeon, Korea

Demonstration-Session Award

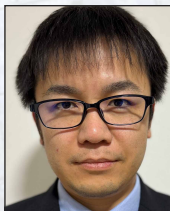
This Award is based on ratings provided by the Demo-Session Committee from the previous year.

2023 Demonstration Session Certificate of Recognition

“A 2.97 μ m-Pitch Event-Based Vision Sensor with Shared Pixel Front-End Circuitry and Low-Noise Intensity Readout Mode”



Atsumi Niwa¹



Futa Mochizuki¹



Raphael Berner²



Takuya Maruyama¹



Toshio Terano¹



Kenichi Takamiya¹



Yasutaka Kimura¹



Kyoji Mizoguchi¹



Takahiro Miyazaki¹



Shun Kaizu¹



Hirotsugu Takahashi¹



Atsushi Suzuki¹



Christian Brandli²



Hayato Wakabayashi¹



Yusuke Oike¹

¹Sony Semiconductor Solutions, Kanagawa, Japan

²Sony Advanced Visual Sensing, Zurich, Switzerland

Demonstration-Session Award

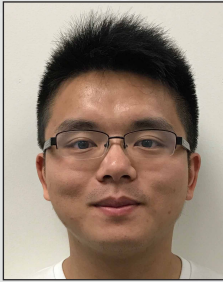
This Award is based on ratings provided by the Demo-Session Committee from the previous year.



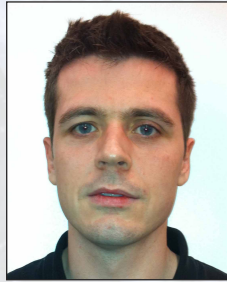
Solid-State Circuits Society Awards

2022 Journal of Solid-State Circuits Best Paper Award

“A Harmonic-Mixing PLL Architectures for Millimeter-Wave Application”



Dihang Yang¹



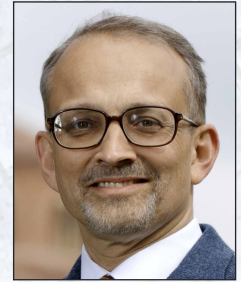
David Murphy¹



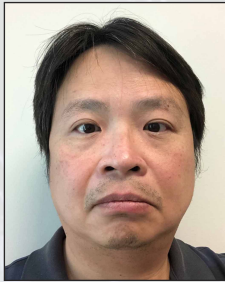
Hooman Darabi¹



Arya Bezhad¹



Asad A. Abidi²



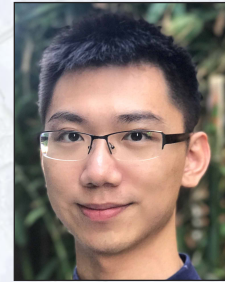
Stephen C. Au¹



Sraavan R. Mundlapudi¹



Kejian Shi¹



Weiyu Leng¹

¹Broadcom, San Jose, CA

²University of California, Los Angeles, CA

2023 IEEE SSCS Student Branch Chapter of the Year Award

Sri Sai Ram Engineering College SSCS Student Branch Chapter



Pooja Mohan Bengeri
Chair



Manoj Kumar C
Chair



Abinaya V R
Vice Chair



Vajra A
Vice Chair



Suriyan N
Secretary



Vidhula P
Secretary



Jayasri A
Treasurer



Shalmitha S
Treasurer



Yokeswaran S
Treasurer



Akshaya A
Webmaster



Ragavi R
Webmaster



Sahana A
Webmaster



Sai Krish R J
Webmaster



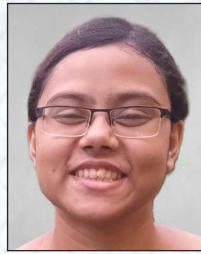
L. Kurinjimalar
Faculty Advisor

2023 IEEE SSCS Student Branch Chapter of the Year Award

Indian Institute of Science, Bangalore



Anshaj Shrivastava
Chair



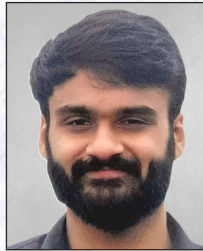
Dhrupadi Das
Treasurer



Aniket Banerjee
Vice Chair



Derick George
Secretary



Soham Lakhote
Webmaster



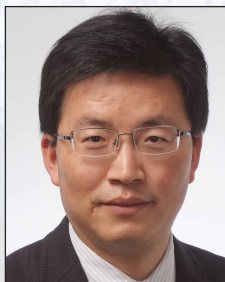
Kundan Kumar
Student Advisor



Utsav Banerjee
Faculty Advisor

2023 SSCS Chapter with Best Educational Program Award

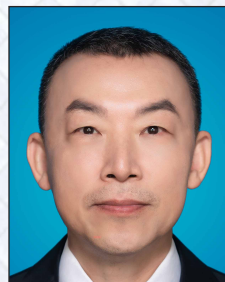
Tianjin SSCS / APS / MTTs Joint Chapter



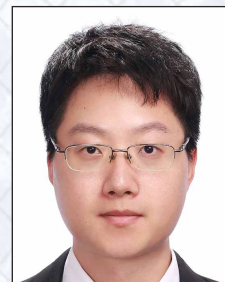
Kaixue Ma
Chair



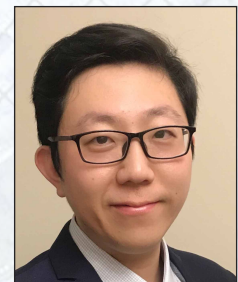
Yu Luo
Vice Chair



Hongxing Zheng
Vice Chair



Fangyi Meng
Secretary



Feng Feng
Treasurer

2023 SSCS Chapter with Best Educational Program Award

Columbus SSCS / CASS Joint Chapter



Ramy Tantawy
Chair



John Hribar
Secretary



Roman Fragasse
Treasurer



Solid-State Circuits Society Awards

2023 IEEE SSCS Chapter with Best Women-in-Circuits Program Award

LBS Institute of Technology for Women, SSC37



Sulthana Sayed
Chair



Aswini Shaji
Vice Chair



Anarkha A
Secretary



Jaseema Jasmin
Joint Secretary



Nandan S
Faculty Advisor

2023 IEEE SSCS Chapter of the Year Award

Tunisia SSCS Chapter



Amel Neifar
Chair



Karim Abbes
Vice Chair



Brahim Mezghani
Treasurer

2024 SSCS Innovative Education Award



Kristofer S. J. Pister



Borivoje Nikolic



Ali Niknejad

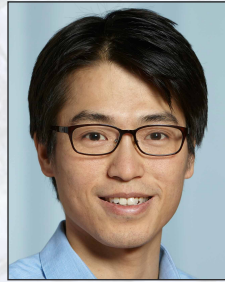
University of California, Berkeley, CA

Established in 2019, the IEEE SSCS Innovative education award recognizes and honors SSCS members in their early/mid-career, who are making significant contributions to education in the field of solid-state circuits using innovative approaches. The award aims to highlight distinguished and unique educational methods or programs that have a broad impact on the education of our community. Some examples include, but are not limited to, education with outreach beyond the candidate's institution, unique teaching methods via a variety of media more appealing to the current and future generations of students, motivational lab development, open source textbooks or lectures, open-source software development, instruction that reaches out to high-school students and teachers, and programs geared toward a diverse group of students, among others.



Solid-State Circuits Society Awards

2024 IEEE Solid-State Circuits Society New Frontier Award



Taekwang Jang
ETH Zürich, Zürich, Switzerland

The IEEE SSCS New Frontier award recognizes and honors SSCS members in their early career who are exploring innovative and visionary technical work within the field of solid-state circuits. The award aims to pioneering developments that are at the frontiers of IC design or possess an imminent potential to expand the field through new categories of circuit technologies, system design, and/or emerging applications.



IEEE Technical Field Awards

2024 IEEE Donald O. Pederson Award in Solid-State Circuits



Deog-Kyoon Jeong
Seoul National University, Seoul, Republic of Korea

"For leadership in the technology development for Digital Video Interface (DVI) and High-Definition Multimedia Interface (HDMI)"

The IEEE annually recognizes outstanding contributors worldwide to the art and science of electro- and information technologies with technical awards in 3 dozen technical specialties. The IEEE Donald O. Pederson Award for Solid-State Circuits for outstanding contributions in the field of solid-state circuits goes to an individual or team of not more than three. The award includes a bronze medal, certificate, and cash honorarium which are presented at the ISSCC.



IEEE

2024 Fellows



Joseph Bardin

Google/UMass Amherst, Goleta, CA

"For contributions to cryogenic microwave circuits"



Deukhyoun Heo

Washington State University Pullman, WA

"For contributions to CMOS power amplifiers in multi-layer packages and reconfigurable reactive components"



Esther Rodriguez Villegas

Imperial College London, United Kingdom

"For contributions to low power biomedical circuits and systems for wearable medical applications"



Ke-Horng Chen

National Chiao Tung University, Hsinchu, Taiwan

"For contributions to power management integrated circuits and system design"



Dietmar Kissinger

Ulm University, Ulm, Germany

"For contributions to millimeter-wave integrated circuits"



Osama K. Shana'a

MediaTek/UC Berkeley San Jose CA

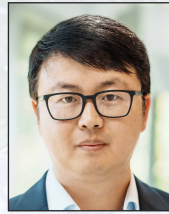
"For leadership in developing low-cost high-performance RF transreceivers"



Mike Shuo-Wei Chen

University of Southern California, Los Angeles, CA

"For contributions to data converter architectures and clock generation techniques"



Di Liang
Santa Barbara, CA

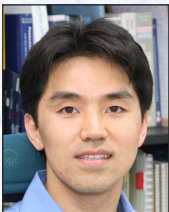
"For contributions to photonic integration in optical communication, computing, and volume production"



Ho-jin Song

Pohang University of Science and Technology, Pohang, Korea

"For contributions to wireless terahertz technology"



Seonghwan Cho

KAIST, Daejeon, Korea

"For contributions to time-domain circuits and applications"



Kaixue Ma

Tianjin University, Tianjin, China

"For contributions to low-loss substrate integrated suspended line technology and reconfigurable millimeter-wave front-end integrated circuits"



Vladimir M. Stojanovic

University of California, Berkeley, CA

"For contributions to electronic-photonic design and system-on-chip integration"



Sergiu R. Goma

Qualcomm, San Diego, CA

"For contributions to hardware implementation of image processing for color cameras in mobile phones"



Robert C. Pilawa-Podgurski

Alameda, CA

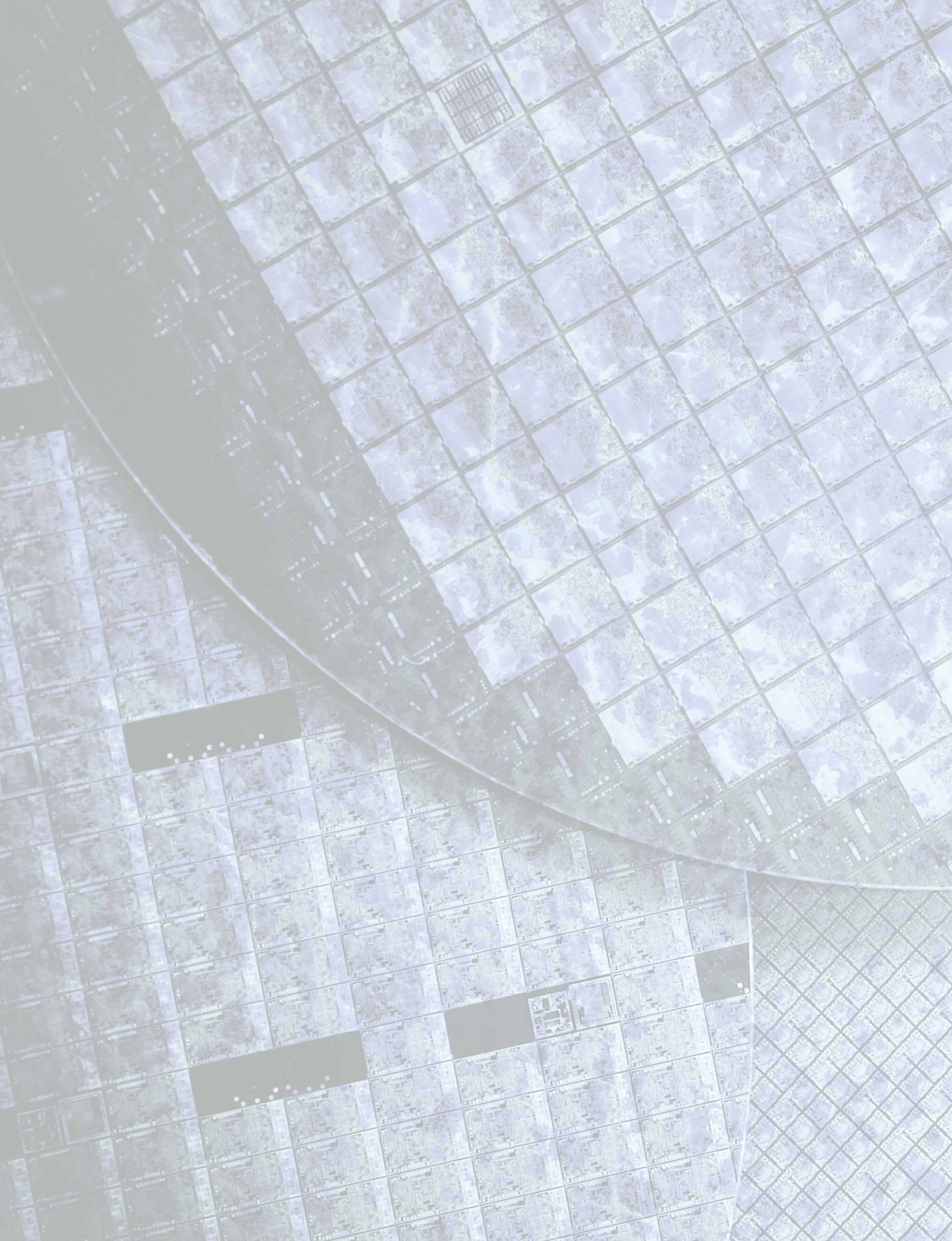
"For contributions to hybrid switched capacitor power converters"



Alberto Valdes-Garcia

IBM, Yorktown Heights, NY

"For contributions to millimeter-wave circuits and systems for communications"



Note that all ISSCC Awards are scrutinized and vetted by a special group,
the Awards and Recognition Committee (ARC)
whose current members are:

*Kenneth (KC) Smith, Chair (University of Toronto)
Bryan Ackland (Old Bridge, NJ)
Anantha Chandrakasan (Massachusetts Institute of Technology)
Nicky Lu (Etron)
Willy Sansen (K.U. Leuven)
Bruce Wooley (Stanford University)

**For a life well-lived.*