IEEE CLEDO BRUNETTI AWARD
RECIPIENTS

2024 ADRIAN M. IONESCU
Professor, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland
“For leadership and contributions to the field of energy-efficient steep slope devices and technologies.”

2023 JOHN ROBERTSON
Professor (Retired), Cambridge University, Cambridge, Cambridgeshire, United Kingdom
“For theoretical contributions to the integration of high-k oxides on semiconductors.”

2022 SIMON DELEONIBUS
Chief Scientist (Retired), CEA, LETI, Grenoble, France
“For contributions to and leadership in nanoscale CMOS device and process technologies.”

2021 JESUS DEL ALAMO
Donner Professor and Professor of Electrical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA
“For leadership in and contributions to InGaAs- and GaN-based field-effect transistor technology.”

2020 JAMES H. STATHIS
Principal Research Staff Member, IBM Research, Yorktown Heights, New York, USA
“And
ERNEST YUE WU
Senior Technical Staff Member, IBM Research, Albany, New York, USA
“For contributions to the understanding of gate dielectric reliability and its application to transistor scaling.”

2019 DANIEL C. EDELSTEIN
IBM Fellow, IBM T.J. Watson Research Center, Yorktown Heights, New York, USA
“For contributions to manufacturable, reliable, and scalable Cu interconnect and low-k dielectric technology for CMOS.”

AND
ALFRED GRILL
IBM Fellow, IBM T.J. Watson Research Center, Yorktown Heights, New York, USA

AND
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CHAO-KUN HU
Research Staff Member, IBM T.J. Watson Research Center, Yorktown Heights, New York, USA

2018 SIEGFRIED SELBERHERR
Professor, Vienna University of Technology, Institute for Microelectronics, Vienna, Austria
“For pioneering contributions to Technology Computer Aided Design.”

2017 GUIDO GROESENEKEN
Professor, Catholic University of Leuven, and Fellow, IMEC, Leuven, Belgium
“For contributions to the characterization and understanding of the reliability physics of advanced MOSFET nanodevices.”

2016 AKIRA TORIUMI
Professor, The University of Tokyo, Tokyo, Japan
“For contributions to CMOS device design from materials engineering to device physics.”

2015 HIROSHI IWAI
Professor, Tokyo Institute of Technology, Yokohama, Kangawa, Japan
“For contributions to the scaling of CMOS devices.”

2014 MARTIN VAN DEN BRINK
Vice President, ASML, Veldhoven, The Netherlands
“For designing new lithography tool concepts and bringing these to the market, enabling micrometer to nanometer imaging.”

2013 GIORGIO BACCARANI
Full Professor, University of Bologna, Bologna, Italy
“For contributions to scaling theory and modeling of metal oxide semiconductor (MOS) devices.”

2012 YAN BORODOVSKY
Intel Senior Fellow, Director of Advanced Lithography, Intel Corporation, Hillsboro, OR, USA
AND
SAM SIVAKUMAR
Intel Fellow, Director of Lithography, Intel Corporation, Hillsboro, OR, USA
“For contributions to developing and implementing innovative lithographic and patterning equipment and processes to enable cost-effective scaling for logic technologies.”

2011 MASSIMO V. FISCHETTI
Professor, University of Massachusetts, Amherst, MA, USA
“For contributions to the fundamental understanding of the physics, design and scaling of nanosized electronic devices.”
AND
DAVID J. FRANK
Research Staff Member, IBM T. J.
Watson Research Center,
Yorktown Heights, NY, USA
AND
STEVEN E. LAUX
Research Staff Member, IBM T. J.
Watson Research Center,
Yorktown Heights, NY, USA

2010 GHAVAM SHAHIDI
IBM Fellow Director of Silicon Tech
IBM TJ Watson Research Ctr
Yorktown Heights, NY, USA
“For contributions to and leadership in the development of silicon-on-insulator CMOS technology.”

2009 BURN JENG LIN
Senior Director of Micropatterning Division, TSMC, Ltd. Hsin-Chu,
Taiwan
“For contributions to immersion lithography for the manufacture of integrated circuit devices.”

2008 MICHEL BRUEL
Deputy Director of CEA-LETI, Director of Research, CEA, Cedex,
France
“For inventing Smart Cut™ layer transfer technology that enabled widespread adoption of SOI for CMOS circuits.”

2007 SANDIP TIWARI
Professor, Electrical and Computer Engineering, Cornell University
Ithaca, NY
“For pioneering contributions to nanocrystal memories and to quantum effect devices.”

2006 SUSUMU NAMBA
Professor, Nagasaki Institute of Applied Science
Nagasaki, Japan
“For contributions to ion-beam and optical technologies for application to semiconductor devices.”

2005 WILLIAM G. OLDHAM
Professor Emeritus, University of California, Berkeley
Berkeley, CA
“For pioneering contributions to lithographic engineering and to high-density isolation technology.”

2004 STEPHEN Y. CHOU
Professor, Department of Electrical Engineering
Princeton University
Princeton, NJ
“For the invention and development of tools for nanoscale patterning, especially nanoimprint lithography, and for the scaling of devices into new physical regimes.”

2003 ANDREW R. NEUREUTHER
Professor, EECS, University of
"For pioneering contributions to modeling and simulation of the lithographic materials,
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California, Berkeley, CA processes, and tools used in microelectronics manufacturing."

2002 MARK LUNDSTROM
SUPRIYO DATTA
Purdue University, West Lafayette, IN
“For significant contributions to the understanding and innovative simulation of nano-scale electronic devices.”

2001 R. FABIAN W. PEASE
Stanford University
Stanford, CA
“For advancing high resolution patterning technologies, high performance thermal management, and scanning electron microscopy for microelectronics.”

2000 ROBERT E. FONTANA
IBM Almaden Research Center
San Jose, CA
"For contributions to micro fabrication techniques for the manufacture of thin film and giant magnetoresistive heads used in hard disk drives."

1999 DAVID K. FERRY
Arizona State Univ., Tempe, AZ
"For fundamental contributions to the theory and development of nanostructured devices.”

1998 ROGER T. HOWE
RICHARD S. MULLER
University of California, Berkeley, CA
"For leadership and pioneering contributions to the field of microelectromechanical systems." 

1997 DIETER P. KERN
GEORGE A. SA1-HALASZ
MATTHEW R. WORDEMAN
IBM Research, Yorktown Heights, NY
"For the development of sub-0.1 micron MOSFET devices and circuits."

1996 MITSUMASA KOYANAGI
Tohoku Univ Intell Sys Lab
Sendai, Japan
"For pioneering research and development of the three dimensional stacked capacitor DRAM cell."

1995 HENRY I. SMITH
MIT, Cambridge, MA
"For contributions to microfabrication science and technology, notably microlithography."

1994 EIJI TAKEDA
Hitachi Ltd.
Tokyo, Japan
"For pioneering contributions to the characterization and understanding of hot-carrier effects in MOS devices."

1993 TAKAFUMI NAMBU
MITSURU IDA
"For the development of the WALKMAN, the realization of a totally new concept of
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KAMON YOSHIYUKI
SONY Corporation, Tokyo, Japan
miniaturization of consumer electronics."

1992 DAVID A. THOMPSON
IBM Corp.
San Jose, CA
"For pioneering work in miniature magnetic
devices for data storage, including the
invention, design and development of
thin-film and magnetoresistive recording
heads."

1991 HIDEO SUNAMI
Hitachi, Ltd., Tokyo, Japan
"For contributions in the invention and
development of the trench capacitor DRAM
cell."

1990 ELSE KOOI
Philips Research Labs.
Sunnyvale, CA
"For invention and development of the
process for localized oxidation of silicon
using a silicon nitride mask, which enabled
greatly reduced dimensions in VLSI
circuits."

1989 SHUN-ICHI IWASAKI
Tohoku University, Sendai, Japan
"For contributions to the miniaturization of
magnetic recording systems."

1988 IRVING AMES IBM Corp., NY
FRANCOIS M. d'HEURLE
RICHARD E. HORSTMANN
"For the invention of
electromigration-resistant copper-doped
aluminum metallurgy."

1987 MICHAEL HATZAKIS
IBM Corp., Yorktown Heights, NY
"For fundamental contributions to the
patterning techniques of submicron electron
devices."

1986 RICHARD M. WHITE
Univ of California, Berkeley, CA
"For invention of surface acoustic wave
electronic devices for signal processing
applications."

1985 ALEC N. BROERS
IBM Corporation
Hopewell Junction, NY
"For leadership and pioneering contributions
to the technology and applications of
electron beams to fine line lithography."

1984 HARRY W. RUBINSTEIN
Sprague Electric Co.
Grafton, Wisconsin
"For early key contributions to the
development of printed components and
conductors on a common insulating
substrate."

1983 ABE OFFNER
Perkin-Elmer Corp.
Wilton, CT
"For the invention and design of the optics
which made possible the projection
lithography systems that were key to
advancing integrated circuit manufacture."

1982 ROBERT H. DENNARD
"For the invention of the one-transistor
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IBM Corp.
Yorktown Heights, NY
dynamic random access memory cell and for contributions to scaling of MOS devices."

1981 DONALD R. HERRIOTT
Bell Labs.
Murray Hill, NJ
"For key contributions to the development of a practical electron beam system for fabrication of integrated circuit masks and to other aspects of microlithography."

1980 MARCIAN E. HOFF, JR.
INTEL Corp.
Santa Clara, CA
"For the conception and development of the microprocessor."

1979 GEOFFREY W. A. DUMMER
Worcestershire, England
AND
PHILIP J. FRANKLIN
GSA, Federal Supply Service
Washington, DC
"For contributions to materials development and fabrication techniques for miniature passive electronic components and assemblies."

1978 JACK S. KILBY
Texas Instrument, Dallas, TX
ROBERT N. NOYCE
Intel Corporation, Santa Clara, CA
"For contributions to miniaturization through inventions and the development of integrated circuits."