IEEE CLEDO BRUNETTI AWARD
RECIPIENTS

2021 – JESUS DEL ALAMO
Professor, 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

AND

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

AND

CHAO-KUN HU
Research Staff Member, 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.”

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  
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  
“For contributions to the fundamental understanding of the physics, design and scaling of nanosized electronic devices.”

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.”
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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 California, Berkeley, CA
“For pioneering contributions to modeling and simulation of the lithographic materials, 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
“For contributions to micro fabrication
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RECIPIENTS

IBM Almaden Research Center
San Jose, CA

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. SAI-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
KAMON YOSHIYUKI
SONY Corporation, Tokyo, Japan

“For the development of the WALKMAN, the
realization of a totally new concept of
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

“For invention and development of the
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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
IBM Corp.
Yorktown Heights, NY
"For the invention of the one-transistor 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
"For contributions to materials development
Worcestershire, England 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."