IEEE LOTFI A. ZADEH AWARD FOR EMERGING TECHNOLOGIES

RECIPIENTS

Formerly the IEEE Daniel E. Noble Award for Emerging Technologies

2025 – DIMITAR P. FILEV
Senior Henry Ford Technical Fellow (retired), Research and Innovation Center, Ford Motor Company, Dearborn, Michigan, USA

“For technical leadership and pioneering contributions to emerging automotive intelligent control and information systems.”

2024 – ANDRAS KIS
Professor, Laboratory of Nanoscale Electronics and Structures, EPFL, Lausanne, Switzerland

“For pioneering work and breakthroughs on 2D materials and electronic devices.”

2023 – NO AWARD

2022 – NO AWARD

2021 – NO AWARD

2020 – MIRO MICOVIC
Engineering Fellow, Raytheon, Tucson, Arizona, USA

“For leadership in millimeter-wave Gallium Nitride (GaN) transistor and technology development.”

2019 – THOMAS KENNY
Professor, Department of Mechanical Engineering, Stanford University, Stanford, California, USA

“For the development and widespread commercialization of MEMS resonators for timing applications.”

2018 – RAJIV V. JOSHI
Research Staff Member, IBM T. J. Watson Research Center, Yorktown Heights, New York, USA

“For contributions to predictive failure analytics, VLSI memory design, and technology.”

2017 – MIGUEL A. L. NICOLELIS
Professor, Duke University School of Medicine, Durham, North Carolina, USA

"For seminal contributions to brain-machine interfaces."

2016 – MARK G. ALLEN
Alfred Fitler Moore Professor, Department of Electrical and Systems Engineering, Singh Center for Nanotechnology, University of Pennsylvania, Philadelphia, Pennsylvania, USA

“For contributions to research and development, clinical translation, and commercialization of biomedical microsystems.”

2015 – KHALIL NAJAFI
Schlumberger Professor and Chair, "For leadership in micro-electro-mechanical systems (MEMS), technologies, and devices
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Electrical Engineering and Computer Science, The University of Michigan, Ann Arbor, Michigan, USA and for seminal contributions to inertial devices and hermetic wafer-level packaging.”

2014 – GABRIEL M. REBEIZ
Professor, University of California, San Diego, La Jolla, CA, USA
“For pioneering contributions enabling commercialization of RF MEMS technology and tunable micro- and millimeter-wave systems.”

2013 – JAN P. ALLEBACH
Hewlett-Packard Distinguished Professor of Electrical and Computer Engineering, Purdue University, West Lafayette, IN, USA
“For the development of the Tone-Dependent Error Diffusion algorithm used widely in inkjet and laser printers.”

2012 – SUBRAMANIAN S. IYER
Distinguished Engineer & Chief Technologist, Semiconductor Research & Development Center, IBM Systems & Technology Group Hopewell Junction, NY, USA
“For the development and implementation of embedded DRAM technologies.”

2011 – MARK L. BURGENER
Vice President of Advanced Research, Peregrine Semiconductor, San Diego, CA, USA
AND RONALD E. REEDY
CTO and Chief of Staff, Peregrine Semiconductor, San Diego, CA, USA
“For basic research and development of silicon on sapphire technology culminating in high-yield, commercially viable integrated circuits.”

2010 – SHINICHI ABE
Gen Mgr., Hybrid Vehicle Mgmt System Development Division, Toyota Corp. Aichi, Japan
AND SHOICHI SASAKI
Professor, Keio University Yokohama, Japan
AND TAKEHISA YAEGASHI
President (Consultant) Cordia Corporation Shizuoka, Japan
“For pioneering contributions to the development and market penetration of hybrid electric vehicles (HEVs) through the establishment of innovative architectures and control technologies.”
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2009 – LARRY F. WEBER
President, Society for Information Display (SID),
San Jose, CA, USA
“For pioneering contributions to Plasma Display Technology and its commercialization.”

2008 – JAMES M. DAUGHTON
Founder, President/CEO/CTO, NVE Corporation,
Eden Prairie, MN, USA
AND
STUART PARKIN
IBM Fellow, IBM Almaden Research Center; Director, IBM-Stanford Spintronic Science and Applications Center (SpinAps),
San Jose, CA, USA
AND
SAIED TEHRANI
MRAM Technology Director,
Freescale Semiconductor,
Chandler, AZ, USA
“For fundamental contributions to the development of magneto-resistive devices for non-volatile, high density, random access memory.”

2007 – STEPHEN R. FORREST
Dept of Electrical Engineering,
Princeton University,
Princeton, NJ, USA
AND
RICHARD H. FRIEND
Department of Physics, Cambridge University,
Cambridge, UK
AND
CHING TANG
University of Rochester,
Rochester, NY, USA
“For pioneering contributions to the development of organic light emitting diodes (OLEDs)”

2006 – CARLOS A. PAZ DE ARAUJO
Full Professor of Electrical and Computer Engineering, University of Colorado,
Colorado Springs, CO, USA
“For fundamental contributions and commercialization in the field of Ferroelectric Random Access Memory (FeRAM).”

2005 – DAVID LOUIS HARAME
Director of Enablement for Semiconductor Research and Development Center, IBM Fellow, IBM
“For the development of manufacturable Silicon Germanium, HBT Bipolar and BiCMOS technologies.”
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Essex Junction, VT, USA

2004 – LARRY J. HORNBECK
Texas Instruments Fellow
Texas Instruments, Plano, TX, USA
“For his pioneering work and sustained development of the Digital Micromirror Device, used in projection displays.”

2003 – KENICHI IGA
Executive Director, Japan Society for the Promotion of Science, Tokyo, Japan
“For pioneering developments of surface emitting semiconductor lasers and arrays.”

2002 – MASATAKA NAKAZAWA
Tohoku University
Miyagi-Ken, Japan
“For pioneering development of 1.48 µm InGaAsP laser-diode pumping of erbium-doped fiber amplifiers (EDFA).”

2001 – KATSUTOSHI IZUMI
Osaka Prefecture University
Osaka, JAPAN
“For pioneering development of Separation by Implanted Oxygen (SIMOX) technology.”