



2012 IEEE TECHNICAL FIELD AWARDS CITATIONS & SCOPES LIST

1. **IEEE CLEDO BRUNETTI AWARD**—recognizes outstanding contributions to miniaturization and nanotechnology in the electronic arts—sponsored by *Taiwan Semiconductor Manufacturing Company Limited* and the *Brunetti Bequest*—to (two co-recipients)

YAN BORODOVSKY (Non-member)—Intel Senior Fellow, Director of Advanced Lithography, Intel Corporation, Hillsboro, OR, USA

AND

SAM SIVAKUMAR (MIEEE)—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.”

Presentation Venue: 2012 IEEE Symposium on VLSI Technology, 12 June 2012, Hilton Hawaiian Village, Honolulu, HI, USA

2. **IEEE COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY AWARD**—recognizes meritorious contributions to the advancement of components, electronic packaging or manufacturing technologies—sponsored by the *IEEE Components, Packaging and Manufacturing Technology Society*—to

MAURO J WALKER (LFIEEE)—Senior Vice President and Director of Manufacturing, Motorola (Retired), Ocean Ridge, FL, USA

“For advancing electronic manufacturing, technology, and packaging worldwide through technical innovation and cooperative leadership in industry, government, academia, and professional organizations.”

Presentation Venue: 2012 IEEE Electronic Components and Technology (ECTC), 31 May 2012, Sheraton San Diego Hotel & Marina, San Diego, CA, USA

3. **IEEE CONTROL SYSTEMS AWARD**—recognizes outstanding contributions to control systems engineering, science or technology—sponsored by the *IEEE Control Systems Society*—to

ALBERTO ISIDORI (LFIEEE)—Professor of Systems and Control, University of Rome, Sapienza, Rome, Italy

“For pioneering contributions to nonlinear control theory.”

Presentation Venue: 2012 Annual Conference on Decision and Control (CDC), 10-13 December 2012, Grand Wailea, Maui, HI, USA

4. **IEEE ELECTROMAGNETICS AWARD**—recognizes outstanding contributions to electromagnetics in theory, application, or education—sponsored by the *IEEE Antennas and Propagation, Electromagnetic Compatibility, Microwave Theory and Techniques, and Geoscience and Remote Sensing Societies*—to

NADER ENGHETA (FIEEE)—H. Nedwill Ramsey Professor of Electrical and Systems Engineering and Professor of Bioengineering, University of Pennsylvania, Philadelphia, PA, USA

“For contributions to electromagnetic theory and applications of metamaterials and nanoscale optics.”

Presentation Venue: 2012 IEEE International Symposium on Antennas and Propagation & USNC/UURSI National Radio Science Meeting, 11 July 2012, Sheraton Chicago Hotel & Towers, Chicago, IL., USA

5. **IEEE DONALD G. FINK PRIZE PAPER AWARD**—for the outstanding survey, review, or tutorial paper in any of the IEEE Transactions, Journals, Magazines, or Proceedings, sponsored by the *IEEE Life Members Committee*—to

KANNAN M. KRISHNAN (Senior Member)—Professor, Department of Materials Science and Physics, University of Washington, Seattle, WA, USA

For his paper titled, “Biomedical Nanomagnetism: A Spin Through Possibilities in Imaging, Diagnostics and Therapy,” *IEEE Transactions on Magnetics*, Vol. 46, No. 7, July 2010, pp. 2523–2558.

Presentation Venue: 2012 IEEE International Magnetics Conference, 9 May 2012, Vancouver Convention Center, Vancouver, BC, Canada

6. **IEEE JAMES L. FLANAGAN SPEECH AND AUDIO PROCESSING AWARD**—recognizes outstanding contribution to the advancement of speech and/or audio signal processing—sponsored by the *IEEE Signal Processing Society*—to (two co-recipients)

JAMES K. BAKER (Non-member)—Distinguished Career Professor, Carnegie Mellon University, Pittsburgh, PA, USA; Entrepreneur and Consultant, Maitland, FL, USA

AND

JANET MacIver BAKER (MIEEE)—MIT Media Lab, Cambridge, MA, USA and Harvard Medical School, Boston, MA, USA

“For fundamental contributions to the theory and practice of automatic speech recognition.”

Presentation Venue: 2012 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2012), 27 March 2012, 9:00 am, Kyoto International Conference Center, Kyoto, Japan

7. **IEEE ANDREW S. GROVE AWARD**—recognizes outstanding contributions to solid-state devices and technology—sponsored by the *IEEE Electron Devices Society*—to

JEAN-PIERRE COLINGE (FIEEE)—Taiwan Semiconductor Manufacturing Company (TSMC), Hsinchu, Taiwan.

“For contributions to silicon-on-insulator devices and technology.”

Presentation Venue: 2012 42nd Solid-State Device Research Conference ESSDERC'2012, 10-14 September 2012, (location TBD) Bordeaux, France

8. **IEEE HERMAN HALPERIN ELECTRIC TRANSMISSION AND DISTRIBUTION AWARD**—recognizes outstanding contributions to electric transmission and distribution—sponsored by *the Robert and Ruth Halperin Foundation, in memory of Herman and Edna Halperin*, and the *IEEE Power & Energy Society*—to

MICHEL DUVAL (LFIEEE)—Senior Research Scientist, Hydro Quebec Institute of Research (IREQ), Quebec, Canada

“For development and leadership in the condition monitoring of high-voltage power transformers and related equipment.”

Presentation Venue: 2012 IEEE/PES Transformer Committee Meeting, 13 March 2012, Noon Luncheon Nashville, TN

9. **IEEE MASARU IBUKA CONSUMER ELECTRONICS AWARD**—recognizes outstanding contributions in the field of consumer electronics technology—sponsored by *Sony Corporation*—to (three co-recipients)

GISLE BJØNTEGAARD (NONMEMBER)—Cisco Fellow, Cisco Systems Norway, Oslo, Norway

AND

GARY J. SULLIVAN (FIEEE)—Video and Image Technology Architect, Microsoft Corporation, Redmond, WA, USA

AND

THOMAS WIEGAND (FIEEE)—Professor and Chair, Image Communication Laboratory, Berlin Institute of Technology, Berlin, Germany, and Joint Head, Image Processing Department, Fraunhofer Institute for Telecommunications, Heinrich Hertz Institute, Berlin, Germany

“For leadership and technical contributions to the development of the globally deployed video coding standard H.264/MPEG4-AVC.”

Presentation Venue: 2012 IEEE International Conference on Consumer Electronics (ICCE 2012), 15 January 2012, Las Vegas Convention Center, Las Vegas, NV, USA

10. **IEEE INTERNET AWARD**—recognizes exceptional contributions to the advancement of Internet technology for network architecture, mobility and/or end-use applications—sponsored by *Nokia Corporation*—to

MARK HANDLEY (Non-member)—Professor of Networked Systems, University College London, London, United Kingdom

“For contributions to Internet multicast, telephony, congestion control, and the shaping of open Internet standards and open-source systems in all these areas.”

Presentation Venue: 31st Annual IEEE International Conference on Computer Communications (INFOCOM 2012), 27 March 2012, Plenary Session, Hilton Orlando Lake Buena Vista, Orlando, FL, USA

11. **IEEE REYNOLD B. JOHNSON INFORMATION STORAGE SYSTEMS**

AWARD—for outstanding contributions to information storage systems with emphasis on computer storage systems—sponsored by *Hitachi Data Systems*—to

NAOYA TAKAHASHI (SMIEEE)—President and Chief Executive Officer, Hitachi Systems Ltd., Tokyo, Japan

“For leadership in the development of innovative storage systems for heterogeneous open and mainframe servers, business continuity solutions, and virtualization of heterogeneous storage systems.”

Presentation Venue: 2012 IEEE/ACM International Conference on High Performance Computing, 13 November 2012, (location TBD), Salt Lake City, Utah, USA

12. **IEEE RICHARD HAROLD KAUFMANN AWARD**—recognizes outstanding contributions in industrial systems engineering—sponsored by the *IEEE Industry Applications Society*—to

JOHN P. NELSON (FIEEE)—Chief Executive Officer, NEI Electric Power Engineering, Inc., Arvada, CO, USA

“For leadership in grounding and protection design and the advancement of the electrical safety culture.”

Presentation Venue: 2012 IEEE Petroleum and Chemical Industry Technical Conference, 24 September 2012, New Orleans Marriott Hotel, New Orleans, LA, USA

13. **IEEE JOSEPH F. KEITHLEY AWARD IN INSTRUMENTATION AND MEASUREMENT**—recognizes outstanding contributions in electrical measurements—sponsored by *Keithley Instruments, Inc.*—to

RIK PINTELON (FIEEE)—Professor, Electrical Measurement Department, Vrije Universiteit Brussel, Brussels, Belgium

“For the development of innovative system identification methods for measurement applications.”

Presentation Venue: 2012 IEEE International Instrumentation and Measurement Technology Conference (12MtC), 15 May 2012, Noon, Grazer Congress Conference Center, Graz, Austria

14. **IEEE GUSTAV ROBERT KIRCHHOFF AWARD**—recognizes outstanding contributions to the fundamentals of any aspect of electronic circuits and systems that has a long-term significance or impact—sponsored by the *IEEE Circuits and Systems Society*—to

RONALD A ROHRER (LFIEEE)—University Professor Emeritus, Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA, USA

“For fundamental contributions to circuit simulation, circuit design optimization, and electronic design automation.”

Presentation Venue: 2012 IEEE International Solid-State Circuits Conference (ISSCC), 20 February 2012, Plenary Session, San Francisco Marriott, San Francisco, CA, USA

15. **IEEE KOJI KOBAYASHI COMPUTERS AND COMMUNICATIONS AWARD**—recognizes outstanding contributions to the integration of computers and communications—sponsored by *NEC Corporation*—to

JEAN WALRAND (FIEEE)—Professor, Electrical Engineering and Computer Sciences Department, University of California, Berkeley, Calif., USA

“For contributions to the theory and algorithms for high-speed switching and network resource allocation.”

Presentation Venue: 2012 Annual Conference on Decision and Control (CDC), 10-13 December 2012, Grand Wailea, Maui, HI, USA

16. **IEEE WILLIAM E. NEWELL POWER ELECTRONICS AWARD**—recognizes outstanding contribution(s) to the advancement of power electronics—sponsored by the *IEEE Power Electronics Society*—to

LEO LORENZ (FIEEE)—Professor, TU-Ilmenau, Thuringia, Germany and President, European Center for Power Electronics (ECPE), Nuremberg, Germany

“For contributions to the development of power semiconductor devices and integrated power modules.”

Presentation Venue: 2012 IEEE Energy Conversion Congress and Exposition (ECCE), 20 September, Noon, (location TBD), Raleigh, NC, USA

17. **IEEE DANIEL E. NOBLE AWARD FOR EMERGING TECHNOLOGIES**—recognizes outstanding contributions to emerging technologies recognized within recent years—sponsored by *Motorola Foundation*—to

SUBRAMANIAN S. IYER (F'IEEE)—Chief Technologist, Microelectronics Division, IBM Systems & Technology Group, Hopewell Junction, N.Y.

“For the development and implementation of embedded DRAM technologies.”

Presentation Venue: 2012 IEEE International Electron Device Meeting (IEDM), 11 December 2012, (location TBD), San Francisco, CA, USA

18. **IEEE DONALD O. PEDERSON AWARD IN SOLID-STATE CIRCUITS**—recognizes outstanding contributions to solid-state circuits—sponsored by the *IEEE Solid-State Circuits Society*—to

BEHZAD RAZAVI (FIEEE)—Professor, Electrical Engineering Department, University of California, Los Angeles, CA, USA

“For pioneering contributions to the design of high-speed CMOS communication circuits.”

Presentation Venue: 2012 IEEE International Solid-State Circuits Conference (ISSCC), 20 February 2012, Plenary Session, San Francisco Marriott, San Francisco, CA, USA

19. **IEEE FREDERIK PHILIPS AWARD**—recognizes outstanding accomplishments in the management of research and development resulting in effective innovation in the electrical and electronics industry—sponsored by *Philips Electronics NV*—to

CHIH-YUAN (C. Y.) LU (FIEEE)—President, Macronix International Corporation, Ltd., Hsinchu, Taiwan

“For leadership and contributions to research, development, and industrial alliances in semiconductor technology.”

Presentation Venue: 2012 IEEE International Solid-State Circuits Conference (ISSCC), 20 February 2012, Plenary Session, San Francisco Marriott, San Francisco, CA, USA

20. **IEEE PHOTONICS AWARD**—recognizes outstanding achievements in photonics—sponsored by the *IEEE Photonics Society*—to

ELI YABLONOVITCH (FIEEE)—Professor, Electrical Engineering & Computer Sciences Department, University of California Berkeley, Berkeley, CA USA and Director, National Science Foundation’s Center for Energy Efficient Electronics Science, Berkeley, CA, USA

“For pioneering contributions to photonic crystals, the photonic bandgap, and photonic bandgap engineering.”

Presentation Venue: 2012 IEEE Photonics Conference (IPC), 23-27 September 2012, Hyatt Regency San Francisco Airport, San Francisco, CA, USA

21. **IEEE EMANUEL R. PIORE AWARD**—recognizes outstanding contributions in the field of information processing in relation to computer science—sponsored by the *IEEE Emanuel R. Piore Award Fund*—to

FRED B. SCHNEIDER (FIEEE)—Samuel B. Eckert Professor of Computer Science, Cornell University, Ithaca, NY, USA

"For contributions to trustworthy computing through novel approaches to security, fault tolerance, and formal methods for concurrent and distributed systems."

Presentation Venue: 42nd Annual IEEE /IFIP International Conference on Dependable Networks (DSN 2012), 27 June 2012, 8:30 – 10:00 am, Boston Park Plaza Hotel, Boston, MA, USA

22. **IEEE JUDITH A. RESNIK AWARD**—recognizes outstanding contributions to space engineering, within the fields of interest of IEEE—sponsored by the *IEEE Aerospace and Electronic Systems, Control Systems, and Engineering in Medicine and Biology Societies*—to

PRAMOD K. VARSHNEY (FIEEE)—Distinguished Professor, Electrical Engineering and Computer Science, Syracuse University, Syracuse, NY, USA

"For contributions to and leadership in the theory and practice of multisensor data fusion for aerospace and bioengineering applications."

Presentation Venue: 2012 IEEE International Symposium on Information Theory (ISIT), 1-6 July 2012, MIT, Cambridge, MA, USA

23. **IEEE ROBOTICS AND AUTOMATION AWARD**—recognizes outstanding contributions in the field of robotics and automation—sponsored by the *IEEE Robotics and Automation Society*—to

BERNARD ROTH (NONMEMBER)—Rodney H. Adams Professor of Engineering, Stanford University, and Academic Director, Hasso Plattner Institute of Design, Stanford, CA, USA

"For fundamental contributions to robot kinematics, manipulation, and design."

Presenation Venue: 2012 IEEE International Conference on Robotics and Automation (ICRA), 17 May, Noon Awards Luncheon, St. Paul Convention Center, St. Paul, MN, USA

24. **IEEE FRANK ROSENBLATT AWARD**—recognizes outstanding contributions to the advancement of the design, practice, techniques, or theory in biologically and linguistically motivated computational paradigms, including but not limited to neural networks, connectionist systems, evolutionary computation, fuzzy systems, and hybrid intelligent systems in which these paradigms are contained—sponsored by the *IEEE Computational Intelligence Society*—to

VLADIMIR N. VAPNIK (Non-member)—Professor, Columbia University, New York, NY, USA

“For development of support vector machines and statistical learning theory as a foundation of biologically inspired learning.”

Presentation Venue: 2012 Conference on Computational Intelligence for Financial Engineering Economics (CIFr), 30 March 2012, Noon, Credit Suisse, 23rd & Park Ave., New York, NY, USA

25. **IEEE DAVID SARNOFF AWARD**—recognizes exceptional contributions to electronics—sponsored by *SRI International Sarnoff*—to

HIDEO OHNO (MIEEE)—Professor, Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication and Director of Center for Spintronics Integrated Systems, Tohoku University, Sendai, Japan

“For seminal contributions and leadership in bridging semiconductor electronics with magnetism and spintronics.”

Presentation Venue: 2012 IEEE International Magnetics Conference, 9 May 2012, Vancouver Convention Center, Vancouver, BC, Canada

26. **IEEE MARIE SKLODOWSKA-CURIE AWARD**—recognizes outstanding contributions to the field of nuclear and plasma sciences and engineering—sponsored by the *IEEE Nuclear and Plasma Sciences Society*—to

GENNADY MESYATS (NONMEMBER)—Director, Lebedev Physics Institute, Russian Academy of Sciences and Vice President, Russian Academy of Sciences, Moscow, Russia

“For founding the field of nanosecond pulsed power and for seminal contributions to the physics of vacuum breakdown at high power levels.”

Presentation Venue: IEEE 39th International Conference in Plasma Science (ICOPS), 11 July 2012, Edinburgh International Conference Centre, Edinburgh, United Kingdom

27. **IEEE CHARLES PROTEUS STEINMETZ AWARD**—recognizes exceptional contributions to the development and/or advancement of standards in electrical and electronics engineering—sponsored by the *IEEE Standards Association*—to

DALEEP C. MOHLA (FIEEE)—Principal Consultant, DCM Electrical Consulting Services, Inc., Missouri City, TX, USA

“For contributions to the preparation, dissemination, and advocacy of consensus safety standards for operation and maintenance of industrial and commercial power systems.”

Presentation Venue: 2012 IEEE IAS Electrical Safety Workshop (ESW 2012), 2 February 2012, noon, Hilton Daytona Beach, Daytona Beach, FL, USA

28. **IEEE ERIC E. SUMNER AWARD**—recognizes outstanding contributions to communications technology—sponsored by *Bell Labs*—to (two co-recipients)

JACK H. WINTERS (FIEEE)—Managing Member, Jack Winters Communications, LLC, Middletown, NJ, USA

AND

ANDREAS F. MOLISCH (FIEEE)—Full Professor, University of Southern California, Department of Electrical Engineering, Los Angeles, CA, USA

“For contributions to the theory and application of multiple-antenna systems in wireless communications.”

Presentation Venue: 10-15 June 2012, IEEE International Conference on Communications (IEEE ICC 2012), Awards Luncheon - Convention Centre, Ottawa, Canada

29. **IEEE NIKOLA TESLA AWARD**—recognizes outstanding contributions to the generation and utilization of electric power—sponsored by *The Grainger Foundation* and the *IEEE Power & Energy Society*—to

MANOJ R. SHAH (FIEEE)—Senior Engineer, General Electric Co.’s Global Research Center, Niskayuna, NY, USA

“For advancements in electromagnetic design and analysis of electrical machines.”

Presentation Venue: 24 July 2012, 5:00 pm, San Diego Manchester Hyatt, San Diego, CA, USA

30. **IEEE KIYO TOMIYASU AWARD**—recognizes outstanding early to mid-career contributions to technologies holding the promise of innovative applications—sponsored by *Dr. Kiyo Tomiyasu*, the *IEEE Geoscience & Remote Sensing Society*, the *IEEE Microwave Theory and Techniques Society*, and *KDDI R&D Laboratories, Inc.*—to

MUNG CHIANG (SMIEEE)—Professor, Electrical Engineering Department, Princeton University, Princeton, NJ, USA

“For demonstrating the practicability of a new theoretical foundation for the analysis and design of communication networks.”

Presentation Venue: 31st Annual IEEE International Conference on Computer Communications (INFOCOM 2012), 27 March 2012, Hilton Orlando Lake Buena Vista, Orlando, FL, USA

31. **IEEE LEON K. KIRCHMAYER GRADUATE TEACHING AWARD**—recognizes inspirational teaching of graduate students in the IEEE fields of interest—sponsored by the *Leon K. Kirchmayer Memorial Fund*—to

ANTHONY GEORGE CONSTANTINIDES (LFIEEE)—Emeritus Professor, Imperial College, London, U.K.

“For educating, inspiring, and mentoring generations of graduate students in digital signal processing and communications throughout the world.”

Presentation Venue: 2012 Wireless Telecommunications Symposium (WTS 2012), 18 April 2012, Holiday In-Kensington Forum, London, England

32. **IEEE UNDERGRADUATE TEACHING AWARD**—recognizes inspirational teaching of undergraduate students in the fields of interest of the IEEE—sponsored by the *IEEE Education Society*—to

SANTOSH K. KURINEC (FIEEE)—Professor, Electrical & Microelectronic Engineering, Rochester Institute of Technology, Rochester, NY, USA

“For distinguished contributions integrating research into undergraduate engineering education to develop microelectronic engineers well prepared for future challenges.”

Presentation Venue: 2012 IEEE International Electron Device Meeting (IEDM), 11 December 2012, (location TBD), San Francisco, CA, USA

33. **IEEE W.R.G. Baker Paper Award**—the most outstanding paper reporting original work published in any IEEE archival publications (such as Transactions, Journals, and Letters), Magazines, or Proceedings—sponsored by the *IEEE Circuits and Systems, Communications, Control Systems, Information Theory, Power & Energy, Signal Processing, and Vehicular Technology Societies*—to (seven co-recipients)

Gerhard Krieger (FIEEE)—Head, Radar Concepts Department, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen, Germany

Alberto Moreira (FIEEE)—Director, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen and Professor, Karlsruhe Institute of Technology, Germany

Hauke Fiedler—Head, Space Situational Awareness Team, German Aerospace Center GSOC, Oberpfaffenhofen, Germany

Irena Hajnsek (SMIEEE)—Professor, Institute of Environmental Engineering, Swiss Federal Institute of Technology Zurich, Switzerland, and Head, Polarimetric SAR Interferometry Group, Microwaves and Radar Institute, German Aerospace Center, Oberpfaffenhofen, Germany

Marian Werner (MIEEE)—Scientist, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen, Germany

Marwan Younis (SMIEEE)—Research Scientist, German Aerospace Center, Oberpfaffenhofen, Germany

Manfred Zink—Head, Satellite SAR Systems Department, German Aerospace Center, Microwaves and Radar Institute, Oberpfaffenhofen, Germany

For their paper titled, "TanDEM-X: A Satellite Formation for High-Resolution SAR Interferometry," *IEEE Transactions on Geoscience and Remote Sensing*, Vol. 45, Issue 11, Part 1, November 2007, pp. 3317–3341.

Presentation Venue: IEEE International Geoscience and Remote Sensing Symposium (2012 IGARSS) – 23 July 2012, 9:40 am Plenary Session, International Conference Center, Munich, Germany