



Thomas Kailath Receives IEEE's Highest Honor

2007 IEEE President Leah H. Jamieson presented the 2007 IEEE Medal of Honor to Thomas Kailath in Philadelphia, USA, during the annual Honors Ceremony. A professor of engineering at Stanford University, Kailath was recognized for "exceptional development of powerful algorithms in the fields of communications, computing, control and signal processing." His work has led to fundamental breakthroughs and technology enhancements in areas that include multi-path smart cellular phones, wireless text and video messaging, credit card transactions, image resolution and environmental sampling. Also an IEEE Fellow, Kailath is a longtime educator who has mentored more than 100 doctoral and postdoctoral students; almost half of them have since been named IEEE Fellows. The IEEE Medal of Honor is sponsored by the IEEE Foundation. President Jamieson also presented 12 other Medals, one Service Award, two Corporate Recognitions and two Honorary Memberships.

IEEE Medal of Honor
Thomas Kailath
 Stanford University
 Stanford, California, USA
Sponsor: IEEE Foundation

IEEE Alexander Graham Bell Medal
Norman Abramson
 University of Hawaii
 Honolulu, Hawaii, USA
Sponsor: Alcatel-Lucent

IEEE Edison Medal
Russell D. Dupuis
 Georgia Institute of Technology
 Atlanta, Georgia, USA
Sponsor: Samsung Electronics Company, Ltd.

IEEE James H. Mulligan, Jr. Education Medal
Andrew S. Tanenbaum
 Vrije Universiteit
 Amsterdam, The Netherlands
Sponsors: The Mathworks, Inc., National Instruments Foundation, Pearson Prentice Hall and IEEE Life Members Committee

IEEE Founders Medal
Anita K. Jones
 University of Virginia
 Charlottesville, Virginia, USA
Sponsor: IEEE Foundation

IEEE Richard W. Hamming Medal
Abraham Lempel
 Hewlett-Packard Laboratories
 Haifa, Israel
Sponsor: Qualcomm, Inc.

IEEE Jack S. Kilby Signal Processing Medal
Alan V. Oppenheim
 Massachusetts Institute of Technology
 Cambridge, Massachusetts, USA
Sponsor: Texas Instruments, Incorporated

IEEE Jun-ichi Nishizawa Medal
Nicolaas Frans de Rooij
 University of Neuchatel
 Neuchatel, Switzerland
Sponsor: Semiconductor Research Foundation and The Federation of Electric Power Companies, Japan

IEEE Robert N. Noyce Medal
Aart de Geus
 Synopsys, Inc.
 Mountain View, California, USA
Sponsor: Intel Foundation

IEEE Dennis J. Picard Medal for Radar Technologies and Applications
Russell K. Raney
 Johns Hopkins University
 Applied Physics Laboratory
 Laurel, Maryland, USA
Sponsor: Raytheon Company

IEEE Simon Ramo Medal
Victor B. Lawrence
 Stevens Institute of Technology
 Hoboken, New Jersey, USA
Sponsor: Northrop Grumman Corporation

IEEE John von Neumann Medal
Charles Thacker
 Microsoft Corporation
 Redmond, Washington, USA
Sponsor: IBM Corporation

IEEE/RSE Wolfson James Clerk Maxwell Award
Andrew Viterbi
 Viterbi Group, LLC
 San Diego, California, USA

Irwin Mark Jacobs
 Qualcomm, Incorporated
 San Diego, California, USA
Co-funders: Wolfson Microelectronics and IEEE Foundation

IEEE Haraden Pratt Award
Luis T. Gandia
 L. Gandia & Associates, Inc.
 San Juan, Puerto Rico, USA
Sponsor: IEEE Foundation

IEEE Corporate Innovation Recognition
Toyota Motor Corporation
 Toyota-City, Aichi, Japan
Texas Instruments DLP Products
 Plano, Texas, USA
Sponsor: IEEE

IEEE Ernst Weber Engineering Leadership Recognition
Narayana N. R. Murthy
 Infosys Technologies Ltd.
 Bangalore, India
Sponsor: IEEE

IEEE Honorary Membership
Ian C. McRae
 Eskom (retired)
 Germiston, South Africa
Tsutae Shinoda
 Fujitsu Laboratories Ltd.
 Akashi, Japan
Sponsor: IEEE

Other Major 2007 IEEE Awards

At ceremonies around the world during 2007, distinguished engineers and other outstanding technical professionals were presented with 28 IEEE Technical Field Awards, two IEEE Teaching Awards and one Prize Paper Award.

IEEE Cleo Brunetti Award

Sandip Tiwari
Cornell University
Ithaca, New York, USA

Sponsor: Brunetti Bequest

IEEE Components, Packaging and Manufacturing Technology Award

Dimitry Grabbe
Retired
Middletown, PA, USA

Sponsor: IEEE Components, Packaging, and Manufacturing Technology Society

IEEE Control Systems Award

Lennart Ljung
Linköping University
Linköping, Sweden

Sponsor: IEEE Control Systems Society

IEEE Electromagnetics Award

Carl Edward Baum
University of New Mexico
Albuquerque, New Mexico, USA

Sponsors: IEEE Antennas and Propagation Society, IEEE Electromagnetic Compatibility Society, IEEE Microwave Theory and Techniques Society and IEEE Geoscience and Remote Sensing Society

IEEE James L. Flanagan Speech and Audio Processing Award

Allen Gersho
University of California
Santa Barbara, California, USA

Sponsor: IEEE Signal Processing Society

IEEE Andrew S. Grove Award

James D. Plummer
Stanford University
Stanford, California, USA

Sponsor: IEEE Electron Devices Society

IEEE Herman Halperin Electric Transmission and Distribution Award

Eric B. Forsyth
Retired
Brookhaven, New York, USA

Sponsor: Robert and Ruth Halperin Foundation, in Memory of Herman and Edna Halperin

IEEE Masaru Ibuka Consumer Electronics Award

Tomlinson Holman
University of Southern California
School of Cinematic Arts
Los Angeles, California, USA

Sponsor: Sony Corporation

IEEE Reynold B. Johnson Data Storage Device Technology Award

Mason L. Williams
Hitachi Global Storage Technologies
San Jose, California, USA

Sponsor: Hitachi Global Storage Technologies

IEEE Reynold B. Johnson Information Storage Systems Award

Dave Hitz
Network Appliance
Sunnyvale, California, USA

James Lau

Network Appliance
Sunnyvale, California, USA

Sponsor: IBM Almaden Research Center

IEEE Richard H. Kaufmann Award

Md. Azizur Rahman
Memorial University of Newfoundland
St. John's, Newfoundland, Canada

Sponsor: IEEE Industry Applications Society

IEEE Joseph F. Keithley Award in Instrumentation and Measurement

Douglas Kent Rytting
Rytting Consulting
Santa Rosa, California, USA

Sponsor: Keithley Instruments, Incorporated

IEEE Gustav Robert Kirchhoff Award

Yannis P. Tsividis
Columbia University
New York, New York, USA

Sponsor: IEEE Circuits and Systems Society

IEEE Koji Kobayashi Computers and Communications Award

Donald Towsley
University of Massachusetts
Amherst, Massachusetts, USA

Sponsor: NEC Corporation

IEEE William E. Newell Power Electronics Award

Dushan Boroyevich
Virginia Polytechnic Institute & State University
Blacksburg, Virginia, USA

Sponsor: IEEE Power Electronics Society

IEEE Daniel E. Noble Award

Stephen R. Forrest
University of Michigan
Ann Arbor, Michigan, USA

Richard H. Friend

Cambridge University
Cambridge, United Kingdom

Ching Wan Tang

University of Rochester
Rochester, New York, USA

Sponsor: Motorola Foundation



IEEE Fellow Frances E. Allen received the Association for Computing Machinery's (ACM) A.M. Turing Award in 2007 for her contributions that fundamentally improved the performance of computer problems in solving problems and accelerated the use of high-performance computing. The first woman to receive the prestigious award since its establishment in 1966, she also is an IBM Fellow Emerita. Allen is congratulated by, from left, ACM President Stuart I. Feldman, Intel Vice President and Director of Research Andrew A. Chien, and ACM CEO John R. White. Intel Corporation and Google Inc. provide financial support for the Turing Award.



2004 IEEE President Arthur W. Winston (left) and (far right) **Jerome E. Levy and Harold S. Goldberg** shared the National Academy of Engineering (NAE) 2007 Bernard M. Gordon Prize for developing a distinctive multidisciplinary graduate program for engineering professionals in 1984 at the Gordon Institute. The Institute, which is now part of Tufts University, USA, was founded by Bernard Gordon. He also created, with NAE, the US\$500,000 annual Gordon Prize to recognize innovation in engineering and technology education. Shown with the 2007 winners are (from left) 1997-2007 NAE President William A. Wulf and Bernard Gordon. Recipients Goldberg and Winston are IEEE Life Fellows as is Gordon; Wulf is an IEEE Fellow.

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

Hugo De Man

Katholieke Universiteit Leuven
Leuven, Belgium

Sponsor: IEEE Solid-State Circuits Society

IEEE Frederik Philips Award

Yong-Kyung (Ken) Lee

KT Corporation
Seoul, Korea

Sponsor: Philips Electronics N.V.

IEEE Photonics Award

David Neil Payne

University of Southampton
Southampton, United Kingdom

*Sponsor: IEEE Lasers and
Electro-Optics Society*

IEEE Emanuel R. Piore Award

Randal E. Bryant

Carnegie Mellon University
Pittsburgh, Pennsylvania, USA

*Sponsor: IEEE Emanuel R. Piore
Award Fund*

IEEE Judith A. Resnik Award

Daniele Mortari

Texas A&M University
College Station, Texas, USA

*Sponsors: IEEE Aerospace and Electronic
Systems Society, IEEE Control Systems
Society and IEEE Engineering in Medicine
and Biology Society*

IEEE Robotics and Automation Award

Gerd Hirzinger

Institute of Robotics and Mechantronics
Wessling, Germany

*Sponsor: IEEE Robotics and
Automation Society*

IEEE Frank Rosenblatt Award

James C. Bezdek

University of West Florida
Pensacola, Florida, USA

*Sponsor: IEEE Computational
Intelligence Society*

IEEE David Sarnoff Award

Umesh K. Mishra

University of California
Santa Barbara, California, USA

Sponsor: Sarnoff Corporation

**IEEE Charles Proteus
Steinmetz Award**

Vic Hayes

Delft University of Technology
Delft, The Netherlands

Sponsor: IEEE Standards Association

IEEE Eric E. Sumner Award

Michael G. Luby

Digital Fountain, Inc.
Fremont, California, USA

Amin Shokrollahi

Digital Fountain, Inc.
Fremont, California, USA

Sponsor: AlcatelLucent

IEEE Nikola Tesla Award

Thomas W. Nehl

Delphi Research Labs
Shelby Township, Michigan

*Sponsors: The Grainger Foundation and
IEEE Power Engineering Society*

IEEE Kiyo Tomiyasu Award

Alberto Moreira

German Aerospace Center/Microwaves &
Radar Institute
Wessling, Germany

Sponsor: Kiyo Tomiyasu Fund

**IEEE Leon K. Kirchmayer
Graduate Teaching Award**

Michael Shur

Rensselaer Polytechnic Institute
Troy, New York, USA

*Sponsor: Leon K. Kirchmayer
Memorial Fund*

IEEE Undergraduate Teaching Award

Clayton R. Paul

Mercer University
Macon, Georgia, USA

Sponsor: IEEE Education Society

**IEEE Donald G. Fink
Prize Paper Award**

Michael Shur

Rensselaer Polytechnic Institute
Troy, New York, USA

Arturas Zukauskas

Vilnius University
Vilnius, Lithuania

"Solid-State Lighting: Towards Superior
Illumination," Proceedings of IEEE, vol. 93, no.
10, October 2005, pp. 1691-1703

Sponsor: IEEE Life Members Committee

2007 Class of IEEE Fellows

In 2007, 268 IEEE Senior Members were elevated to IEEE Fellow. This honor is the highest membership grade that any IEEE member can achieve and is presented annually to no more than 0.1 percent of the voting membership as of 31 December of the preceding year. Being named an IEEE Fellow recognizes outstanding members for their significant accomplishments in advancing engineering, science and technology, and for their contributions to IEEE's mission.



2007 IEEE President and CEO Leah H. Jamieson (right) received the 2007 Women of Vision Award for Social Impact from the Anita Borg Institute (ABI). Telle Whitney, ABI's President and CEO, presented the recognition to Jamieson, who was honored for her work at the forefront of innovation in education and social change. Also an IEEE Fellow, Jamieson co-founded Engineering Projects in Community Service (EPICS), in which teams of undergraduate engineering students design, build and deploy real systems to solve engineering-based problems for local non-profit organizations. EPICS was started in 1995 at Purdue University, USA. ABI also honored IEEE Fellow Deborah Estrin with a 2007 Woman of Vision Award for Innovation and IEEE Senior Member Duy-Loan Le with a 2007 Woman of Vision Award for Leadership.



IEEE Life Fellow Leslie Geddes was presented with the U.S. National Medal of Technology, the nation's highest honor for technological innovation, by President George W. Bush. Geddes was recognized for more than 50 years of biomedical engineering research that has produced major advances for burn treatment; miniature, implantable defibrillators; ligament repair; and blood-pressure monitors for premature infants. His most recent discovery is a new method for performing cardiopulmonary resuscitation that is said to be more effective than the standard method. Geddes has been an IEEE member since 1947 and of the IEEE Engineering in Medicine and Biology Society since 1973.



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