



2018 IEEE MEDALS AND RECOGNITIONS RECIPIENTS AND CITATIONS

1. [**IEEE MEDAL OF HONOR**](#), for an exceptional contribution or an extraordinary career in IEEE fields of interest, sponsored by the *IEEE Foundation*, to

Recipient

BRADFORD W. PARKINSON (LFIEEE)—Professor Emeritus, Stanford University, Stanford, California, USA

Citation

"For fundamental contributions to and leadership in developing the design and driving the early applications of the Global Positioning System."

2. [**IEEE ALEXANDER GRAHAM BELL MEDAL**](#), for exceptional contributions to communications and networking sciences and engineering, sponsored by *Nokia Bell Labs*, to

Recipient

NAMBI SESHADRI (FIEEE)—Professor ECE, University of California, San Diego, and consulting CTO, Quantenna Corporation, San Jose, California, USA

Citation

"For contributions to the theory and practice of wireless communications."

3. [**IEEE EDISON MEDAL**](#), for a career of meritorious achievement in electrical science, electrical engineering, or the electrical arts, sponsored by *Samsung Electronics Co., Ltd.*, to

Recipient

ELI YABLONOVITCH (FIEEE)—Professor, Electrical Engineering & Computer Sciences Department, University of California, Berkeley, Berkeley, California, USA

Citation

"For leadership, innovations, and entrepreneurial achievements in photonics, semiconductor lasers, antennas, and solar-cells."

4. [**IEEE MEDAL FOR ENVIRONMENTAL AND SAFETY TECHNOLOGIES**](#), for outstanding accomplishments in the application of technology in the fields of interest of IEEE that improve the environment and/or public safety, sponsored by *Toyota Motor Corporation*, to

Recipient

JEROME FAIST (MIEEE)—Professor, ETH Zurich, Zurich, Switzerland

AND

FRANK KLAUS TITTEL (FIEEE)—J.S. Abercrombie Professor in Electrical and Computer Engineering, Professor of Bioengineering, Rice University, Houston, Texas, USA

Citation

“For pioneering contributions to the quantum cascade laser and optical chemical sensors for environmental sensing.”

5. **IEEE FOUNDERS MEDAL**, for outstanding contributions in the leadership, planning, and administration of affairs of great value to the electrical and electronics engineering profession, sponsored by the *IEEE Foundation*, to

Recipient

N.R. NARAYANA MURTHY (HIEEE)—Founder, Infosys, Bangalore, India

Citation

“For visionary leadership at Infosys contributing to human progress through technology and for advancing corporate ethics and social responsibility.”

6. **IEEE RICHARD W. HAMMING MEDAL**, for exceptional contributions to information sciences, systems, and technology, sponsored by *Qualcomm, Inc.*, to

Recipient

ERDAL ARIKAN (FIEEE)—Professor, Department of Electrical Engineering, Bilkent University, Ankara, Turkey

Citation

“For contributions to information and communications theory, especially the discovery of polar codes and polarization techniques.”

7. **IEEE MEDAL FOR INNOVATIONS IN HEALTHCARE TECHNOLOGY**, for exceptional contributions to technologies and applications benefitting healthcare, medicine, and the health sciences, sponsored by the *IEEE Engineering in Medicine and Biology Society*, to

Recipient

THOMAS F. BUDINGER (LFIEEE)—Professor, Department of Bioengineering, University of Berkeley, Berkeley, California, USA

Citation

“For pioneering contributions to tomographic radiotracer imaging.”

8. [**IEEE JACK S. KILBY SIGNAL PROCESSING MEDAL**](#), for outstanding achievements in signal processing, sponsored by *Texas Instruments, Inc.*, to

Recipient

BEDE LIU (LFIEEE)—Professor Emeritus Department of Electrical Engineering, Princeton University, Princeton, New Jersey, USA

Citation

“For sustained contributions to the analysis and the development of low-complexity realizations of digital signal processing algorithms.”

9. [**IEEE/RSE JAMES CLERK MAXWELL MEDAL**](#) for groundbreaking contributions that have had an exceptional impact on the development of electronics and electrical engineering or related fields, sponsored by *IEEE Foundation*, to

Co-recipients

THOMAS BRYN HAUG (non-member)—Former Chairman, Special Mobile Group, CEPT / currently ETSI (European Telecommunications Standards Institute); Solletuna, Sweden

AND

PHILIPPE RAYMOND DUPUIS (non-member)—Former Chairman, Special Mobile Group, CEPT / currently ETSI (European Telecommunications Standards Institute), Gif sur Yvette, France

Citation

“For leadership in the development of the first international mobile communications standard with subsequent evolution into worldwide smartphone data communication.”

10. [**IEEE JAMES H. MULLIGAN, JR. EDUCATION MEDAL**](#), for a career of outstanding contributions to education in the fields of interest of IEEE, sponsored by *MathWorks, Pearson*, and the *IEEE Life Members Fund*, to

Recipient

DELORES M. ETTER (LFIEEE)—Professor Emeritus, Department of Electrical Engineering, Southern Methodist University, Dallas, Texas, USA

Citation

“For contributions to engineering through innovative textbooks on problem solving with computing languages and software tools.”

11. [**IEEE JUN-ICHI NISHIZAWA MEDAL**](#), for outstanding contributions to material and device science and technology, including practical application, sponsored by *The Federation of Electric Power Companies, Japan*, to

Recipient

JOE C. CAMPBELL (LFIEEE)—Professor, University of Virginia, Department of Electrical and Computer Engineering, Charlottesville, Virginia, USA

Citation

“For contributions to the development of high-speed, low-noise, long-wavelength avalanche photodiodes.”

12. [IEEE ROBERT N. NOYCE MEDAL](#), for exceptional contributions to the microelectronics industry, sponsored by *Intel Foundation*, to

Recipient

TSUGIO MAKIMOTO (LFIEEE)—President, Technovision, Tokyo, Japan

Citation

“For technical and managerial leadership in CMOS memory and microprocessors.”

13. [IEEE DENNIS J. PICARD MEDAL FOR RADAR TECHNOLOGIES AND APPLICATIONS](#), for outstanding accomplishments in advancing the fields of radar technologies and their applications, sponsored by *Raytheon Company*, to

Recipient

MARK EDWARD DAVIS (LFIEEE)—Consultant, Medavis Consulting, Prospect, New York, USA

Citation

“For technical contributions to advanced aerospace multifunction microwave and foliage penetration radars, and for leadership within the radar community.”

14. [IEEE MEDAL IN POWER ENGINEERING](#), for outstanding contributions to the technology associated with the generation, transmission, distribution, application, and utilization of electric power for the betterment of society, sponsored by the *IEEE Industry Applications, Industrial Electronics, Power Electronics, and Power & Energy Societies*, to

Recipient

HIROFUMI AKAGI (FIEEE)—Distinguished Research Professor, Department of Electrical and Electronic Engineering, Tokyo Institute of Technology, Tokyo, Japan

Citation

“For pioneering contributions to theory and practice of power conversion systems and their applications.”

15. [IEEE SIMON RAMO MEDAL](#), for exceptional achievement in systems engineering and systems science, sponsored by *Northrop Grumman Corporation*, to

Recipient

HEINZ STOEWER (non-member)—President, Space Associates GmbH, Muenchen, Germany

Citation

“For pioneering accomplishments in and technical leadership of space systems engineering, and for profound influence on teaching and practice of systems engineering.”

16. [IEEE JOHN VON NEUMANN MEDAL](#), for outstanding achievements in computer-related science and technology, sponsored by *IBM Corporation*, to

Recipient

PATRICK COUSOT (MIEEE)—Professor, New York University, New York, New York, USA

Citation

“For introducing abstract interpretation, a powerful framework for automatically calculating program properties with broad application to verification and optimization.”

17. [IEEE CORPORATE INNOVATION AWARD](#), for an outstanding innovation by an organization in an IEEE field of interest, sponsored by *IEEE*, to

Recipient

PIXAR ANIMATION STUDIOS—Emeryville, California, USA

Citation

“For a long history of pioneering innovations in computer animation and computer graphics.”

18. [IEEE RICHARD M. EMBERSON AWARD](#), for distinguished service advancing the technical objectives of the IEEE, sponsored by the *IEEE Technical Activities Board*, to

Recipient

DONALD HEIRMAN (LFIEEE)—President, Don Heirman Consultants, Lincroft, New Jersey, USA

Citation

“For leadership and service to industry and IEEE, and for the development of global consensus and education in IEEE technical fields and standards.”

19. [IEEE HARADEN PRATT AWARD](#), for outstanding volunteer service to the IEEE, sponsored by the *IEEE Foundation*, to

Recipient

LORETTA J. ARELLANO (SMIEEE)—Retired Senior Manager, Raytheon Technical Services Company, Sun Valley, California, USA

Citation

“For furthering IEEE’s objectives, promoting cooperation among IEEE organizational units, and exemplary innovation in developing IEEE volunteer leaders.”

20. **IEEE HONORARY MEMBERSHIP**, elected by the Board of Directors from among those individuals, not members of IEEE, who have rendered meritorious service to humanity in IEEE’s designated fields of interest, sponsored by *IEEE*, to

Recipients (2)

MIHAL (MIKE) LAZARIDIS (non-member)—Quantum Valley Investments, Waterloo, Ontario, Canada

Citation

“For revolutionary contributions to wireless communication and visionary leadership in fostering the advancement of fundamental physics toward future innovation.”

AND

ANTON ZEILINGER (non-member)—President, Austrian Academy of Sciences, Vienna, Austria

Citation

“For pioneering conceptual and experimental contributions to the development of quantum communications and encryption.”