

# 2020 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**

**CHENMING HU** (LFIEEE)—TSMC Distinguished Professor Emeritus, Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, California, USA

### Citation

"For a distinguished career of developing and putting into practice semiconductor models, particularly 3-D device structures, that have helped keep Moore's Law going over many decades."

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

### <u>Recipient</u>

RAJIV LAROIA (FIEEE)—Founder & CTO, Light Company, Far Hills, New Jersey, USA

### **Citation**

"For contributions to cellular wireless data systems."

**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**

**FREDE BLAABJERG** (FIEEE)—Professor, Department of Energy Technology, Aalborg University, Aalborg, Denmark

#### Citation

"For contributions to and leadership in power electronics, developing a sustainable society."

### 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**

**NANCY LEVESON** (AFIEEE)—Professor of Aeronautics and Astronautics, MIT, Cambridge, Massachusetts, USA

### Citation

"For contributions to software safety and for the development of system safety modeling."

**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

## <u>Recipient</u>

JEN-HSUN HUANG (nonmember)—CEO, NVIDIA, Santa Clara, California, USA

## Citation

"For visionary leadership of NVIDIA and the development of GPU fueling the Artificial Intelligence revolution."

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

# <u>Recipient</u>

**CYNTHIA DWORK** (nonmember)—Gordon McKay Professor of Computer Science, Harvard University, Cambridge, Massachusetts, USA

### Citation

"For foundational work in privacy, cryptography, and distributed computing, and for leadership in developing differential privacy."

# 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**

**MARK S. HUMAYUN** (FIEEE)—Professor, Department of Biomedical Engineering and Ophthalmology, University of Southern California, Los Angeles, California, USA

### Citation

"For contributions to the treatments of retinal neurodegenerative diseases through the use of prosthetic devices."

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

### **Recipient**

**RAMALINGAM CHELLAPPA** (LFIEEE)—Distinguished University Professor, Electrical and Computer Engineering, University of Maryland, College Park, Maryland, USA

### Citation

"For contributions to image and video processing, especially applications to face recognition."

#### 9. 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

### <u>Recipient</u>

**LEAH JAMIESON** (LFIEEE)—Ransburg Distinguished Professor of Electrical and Computer Engineering, School of Electrical and Computer Engineering, Purdue University, West Lafayette, Indiana, USA

### Citation

"For contributions to the promotion, innovation, and inclusivity of engineering education."

**10. 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**

**PAUL DANIEL DAPKUS** (FIEEE)—William M. Keck Distinguished Professor of Engineering, Professor of Electrical Engineering and Physics and Astronomy, University of Southern California, Los Angeles, California, USA

### Citation

"For the development of metal organic chemical vapor deposition and quantum well lasers."

**11. IEEE ROBERT N. NOYCE MEDAL**, for exceptional contributions to the microelectronics industry, sponsored by *Intel Foundation*, to

# <u>Recipient</u>

SUSUMU KOHYAMA (MIEEE)—President and CEO, K Associates, Inc., Tokyo, Japan

### Citation

"For global executive leadership in CMOS technology development, and for standardization of design methodology and its impact on the semiconductor industry."

# 12. IEEE DENNIS J. PICARD MEDAL FOR RADAR TECHNOLOGIES AND

**<u>APPLICATIONS</u>**, for outstanding accomplishments in advancing the fields of radar technologies and their applications, sponsored by *Raytheon Company*, to

## **Recipient**

**JOSEPH R. GUERCI** (FIEEE)—President/CEO, Information Systems Laboratories, Inc., La Jolla, California, USA

### Citation

"For contributions to advanced, fully adaptive radar systems and real-time knowledgeaided, and cognitive radar processing architectures."

**13. 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**

**RIK W. DE DONCKER** (FIEEE)—Director, RWTH Aachen University, Aachen, Germany

### Citation

"For contributions to high-power and energy-conversion technologies."

**14. IEEE SIMON RAMO MEDAL**, for exceptional achievement in systems engineering and systems science, sponsored by *Northrop Grumman Corporation*, to

# **Co-Recipients**

**BYRANA N. SURESH** (nonmember)—Honorary Distinguished Professor, Indian Space Research Organization, Karnakata, Bangalore, India

# AND

**K. SIVAN** (nonmember)—Chairman, Indian Space Research Organization, Karnataka, Bangalore, India

# <u>Citation</u>

"For outstanding leadership in developing a national space program and pioneering space technology."

**15. IEEE JOHN VON NEUMANN MEDAL**, for outstanding achievements in computer-related science and technology, sponsored by *IBM Corporation*, to

# **Recipient**

**MICHAEL I. JORDAN** (FIEEE)—Professor, University of California, Berkeley, California, USA

### Citation

"For contributions to machine learning and data science."

**16. IEEE CORPORATE INNOVATION AWARD**, for an outstanding innovation by an organization in an IEEE field of interest, sponsored by *IEEE*, to

### <u>Recipient</u>

APPLE, INC.-Cupertino, California, USA

#### Citation

"For innovations in the design of high-performance and energy-efficient custom silicon for mobile applications."

**17. IEEE RICHARD M. EMBERSON AWARD,** for distinguished service advancing the technical objectives of the IEEE, sponsored by the *IEEE Technical Activities Board,* to

### **Recipient**

**JOHN VIG** (LFIEEE)—Consultant, DARPA Microsystems Technology Office, Colts Neck, NJ, USA

#### **Citation**

"For leadership, entrepreneurship, and perseverance in founding the IEEE Sensors Council and associated technical journals."

**18. IEEE HARADEN PRATT AWARD**, for outstanding volunteer service to the IEEE, sponsored by the *IEEE Foundation*, to

### **Recipient**

**MARY ELLEN RANDALL** (FIEEE)—Founder/CEO of Ascot Technologies, Inc., Cary, North Carolina, USA

#### **Citation**

"For advocacy of member engagement through projects, social networking, awards, service to humanity, inclusion, and outreach in support of IEEE goals."

**19. 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

### **Recipient**

**BORYS PATON** (non-member)—President, Academician of the National Academy of Science of Ukraine, (NASU), Director of Institute of E.O. Paton Electric Welding of NASU, Kyiv, Ukraine

#### **Citation**

"For lifetime achievements within IEEE technical fields of interest in the development of

processes of electrometallurgy, materials science, electric welding of metals, and biological tissues."

## 20. IEEE THEODORE W. HISSEY OUTSTANDING YOUNG PROFESSIONAL

<u>AWARD</u>, for contributions to the technical community and IEEE fields of interest, sponsored by *IEEE Young Professionals, Photonics Society, Power & Energy Society*, to

# **Recipient**

**SAMPATHKUMAR VEERARAGHAVAN** (MIEEE)—Technical Program Manager, Alexa Artificial Intelligence Group, Amazon, Boston, Massachusetts, USA

### **Citation**

"For inspiring leadership, exemplary innovations, and pioneering contributions to addressing global challenges through technology-driven IEEE humanitarian programs."