Hussein Abbass
Canberra, ACT, Australia

_for contributions to evolutionary learning and optimization_

Michael Abramoff
Iowa City, IA, U.S.A.

_for contributions to the application of artificial intelligence methods in diabetic retinopathy_

Paavo Alku
Espoo, Finland

_for contributions to analysis, synthesis and quality improvement of speech signals_

Jaume Anguera Pros
Catalunya, Spain

_for contributions to small multiband antennas for wireless telecommunication devices_

Alyssa Apsel
Ithaca, NY, U.S.A.

_for contributions to radio frequency and optical communications circuits and systems_

Jose Arroyo-Sanchez
Ciudad Real, Spain

_for contributions to generation scheduling for electricity markets_

Chadi Assi
Montreal, QC, Canada

_for contributions to the methodology and application of machine learning and data mining_

Amir Avestimehr
Rancho Palos Verdes, CA, U.S.A.

_for contributions to the analysis of communication and computation over wireless networks_
2020 NEWLY ELEVATED FELLOWS

Hari Balakrishnan
Cambridge, MA, U.S.A.

for contributions to the design and application of mobile sensing systems

Andrew Bell
Leeds, UK

for contributions to piezoelectric science and engineering resulting in novel high temperature ultrasound transducers

Adel Belouchrani
EL Harrach, Algeria

for contributions to blind source separation and to non-stationary signal and array processing

Mohamed Benbouzid
Brest, France

for contributions to diagnosis and fault-tolerant control of electric machines and drives

Vaughn Betz
Toronto, ON, Canada

for contributions to computer-aided design of field-programmable gate arrays

William Bidermann
San Diego, CA, U.S.A.

for leadership in commercially successful image sensors and microprocessors

Aude Billard
Lausanne, Switzerland

for contributions to robot task learning and programming by human demonstration

Monica Blank
Palo Alto, CA, U.S.A.

for development of gyrotron oscillators and amplifiers
2020 NEWLY ELEVATED FELLOWS

Alexandra Boltasseva
West Lafayette, IN, U.S.A.

for research on new materials for plasmonic and metamaterial nanophotonic devices

Sukumar Brahma
Clemson, SC, U.S.A.

for contributions to power system protection with distributed and renewable generation

Geoffrey Burr
Cupertino, CA, U.S.A.

for contributions to neuromorphic computing using non-volatile memories

Lin Cai
Victoria, BC, Canada

for contributions to topology control of wireless networks

Filippo Capolino
Irvine, CA, U.S.A.

for contributions to development of electromagnetic phenomena in metamaterials and periodic structures

Walter Mark Carpenter
Irving, TX, U.S.A.

for leadership in standards development for power system protection

Ramon Carvajal
Sevilla, Spain

for contributions to low-voltage and low-power CMOS analog circuit design

Andrea Cavagnino
Torino, Italy

for contributions to multi-physics design and material characterization of electric machines
Ranveer Chandra
Redmond, WA, U.S.A.

for contributions to software-defined wireless networking technologies

Ting-Chang Chang
Kaohsoung, Taiwan

for contributions to non-volatile memory and thin-film transistor technologies

William Chappell
Vienna, VA, U.S.A.

for leadership in the development of reconfigurable radio frequency and microwave systems

Baoquan Chen
Beijing, China

for contributions to spatial data visualization

George Chen
Southampton, UK

for contributions to space charge measurement and interpretation for dielectric performance improvements

Jiann-Fuh Chen
Tainan, Taiwan

for contributions to power electronics in sustainable energy and high power systems

Lei Chen
Hong Kong, Hong Kong

for contributions to time series management and spatial crowdsourcing

Shanzhi Chen
Beijing, China

for leadership in standardization of wireless mobile systems
2020 NEWLY ELEVATED FELLOWS

Wei Chen
Beijing, China

*for contributions to algorithmic development for influence maximization in social networks*

Xudong Chen
Singapore, Singapore

*for contributions to optimization methods for electromagnetic inverse scattering*

Yingying Chen
Holmdel, NJ, U.S.A.

*for contributions to mobile computing and mobile security*

Ka Wai Eric Cheng
Kowloon, Hong Kong

*for contribution to electric vehicle technology and switched-capacitor power conversion*

Sen-Ching Cheung
Lexington, KY, U.S.A.

*for contributions to multimedia data processing and their applications in autism interventions*

Chong-Yung Chi
Hsinchu, Taiwan

*for contributions to convex analysis and optimization for blind source separation*

Jung-Chih Chiao
Dallas, TX, U.S.A.

*for contributions to wireless and battery-less medical implants*

Pr Chidambaram
San Diego, CA, U.S.A.

*for contributions to strain engineering in MOSFETs and to design-technology co-optimization*
2020 NEWLY ELEVATED FELLOWS

Sangyeun Cho
Hwaseong-si, Korea

for leadership and contributions to solid-state drive architectures and systems

Wan Choi
Daejeon, Korea

for contributions to the analysis and design of multi-cell communication systems

Chion Chui
Hsinchu, Taiwan

for contributions to high-mobility germanium metal-oxide-semiconductor devices

Kukjin Chun
Seoul, Korea

for leadership in microelectromechanical systems technology development

Maciej Ciesielski
Amherst, MA, U.S.A.

for contributions to logic synthesis and formal verification of arithmetic circuits

Krzysztof Cios
Richmond, VA, U.S.A.

for contributions to data mining and machine learning

Christopher Clifton
West Lafayette, IN, U.S.A.

for contributions to privacy protection in data analysis

Carlos Cordeiro
Portland, OR, U.S.A.

for contributions to millimeter wave spectrum Wi-Fi radios
2020 NEWLY ELEVATED FELLOWS

Keith Corzine
Scotts Valley, CA, U.S.A.

for contributions to topology and control of multilevel converters

Thomas Crowe
Charlottesville, VA, U.S.A.

for leadership in the development of terahertz devices and instrumentation

Carolina Cruz-Neira
Little Rock, AR, U.S.A.

for contributions to virtual reality

Ravinder Dahiya
Glasgow, UK

for contributions to tactile sensing

Gautam Das
Arlington, TX, U.S.A.

for contributions to search and ranking in databases and deep web querying

Jack Davidson
Charlottesville, VA, U.S.A.

for contributions to compilers, computer security and computer science education

Jose de la Rosa
Sevilla, Spain

for contributions to delta-sigma modulators

Barbara De Salvo
Menlo Park, CA, U.S.A.

for contributions to device physics of nonvolatile embedded and stand-alone memories
2020 NEWLY ELEVATED FELLOWS

Venkata Raman Dinavahi
Edmonton, AB, Canada

_for contributions to real-time simulation of power systems with embedded power electronic converters_

Zhiguo Ding
Manchester, UK

_for contributions to non-orthogonal multiple access and energy harvesting communication_

Marco Di Renzo
Gif sur Yvette, France

_for contributions to spatial modulation and to performance evaluation of wireless networks_

Ivan Djordjevic
Tucson, AZ, U.S.A.

_for contributions to physical-layer optical communications_

Octavia Dobre
St. John's, NL, Canada

_for contributions to the theory and practice of signal intelligence and emerging wireless technologies_

Shlomi Dolev
Beer-Sheva, Israel

_for contributions to distributed computing and self-stabilization_

Liang Dong
Clemson, SC, U.S.A.

_for contributions to the development of photosensitive optical fibers for fiber amplifiers_

Xiaojiang Du
Philadelphia, PA, U.S.A.

_for contributions to wireless security_
2020 NEWLY ELEVATED FELLOWS

Ashutosh Dutta
Bridgewater, NJ, U.S.A.

for leadership in mobility management and security monitoring in mobile networks

Touradj Ebrahimi
Lausanne, Switzerland

for contributions to visual information representation and assessment of quality of experience in multimedia

Rudolf Eigenmann
Newark, DE, U.S.A.

for contributions to compilers for high-performance computing

Stanislav Emelianov
Atlanta, GA, U.S.A.

for contributions to ultrasound elasticity and photoacoustic imaging

Jerome Faist
Zurich, Switzerland

for contributions to quantum cascade lasers and infrared QCLs

Sina Farsiu
Durham, NC, U.S.A.

for contributions to multi-frame super resolution and ophthalmic image processing

Antonella Ferrara
Pavia, Italy

for contributions to sliding mode control theory

Ian Foster
Chicago, IL, U.S.A.

for contributions to grid computing and data transport infrastructures
2020 NEWLY ELEVATED FELLOWS

Edward Frank
Park City, UT, U.S.A.

for leadership in commercialization of wireless solutions for mobile computing and communications

Richard Fujimoto
Atlanta, GA, U.S.A.

for contributions to parallel and distributed discrete event simulation

Feifei Gao
Beijing, China

for contributions to channel estimation and signal processing for wireless communications

Andrea Garulli
Siena, Italy

for contributions to set membership identification and robust analysis of uncertain systems

Johannes Gehrke
Bellevue, WA, U.S.A.

for contributions to data mining and data management systems

Kurt Gibble
University Park, PA, U.S.A.

for contributions to improving the accuracy of atomic fountain clocks

Sonja Glavaski
Potomac, MD, U.S.A.

for leadership in energy systems

Edward Godshalk
Newberg, OR, U.S.A.

for development of microwave on-wafer probing and measurement techniques
2020 NEWLY ELEVATED FELLOWS

Kristen Grauman
Austin, TX, U.S.A.

*for contributions to computer vision for visual recognition and search*

Guofei Gu
College Station, TX, U.S.A.

*for contributions to malware detection and security of next generation networks*

Song Guo
Kowloon, Hong Kong

*for contributions to high performance and resilient distributed computing*

Yifan Guo
Irvine, CA, U.S.A.

*for leadership in interconnect technologies for electronics packaging and reliability analysis*

Mool Gupta
Keswick, VA, U.S.A.

*for contributions to laser material interactions*

Satyandra Gupta
Los Angeles, CA, U.S.A.

*for contributions to the development of decision making tools for manufacturing automation*

Oliver Gutfleisch
Darmstadt, Germany

*for contributions to the development of magnetic materials for sustainable energy applications*

Christoforos Hadjicostis
Nicosia, Cyprus

*for contributions to distributed and discrete event systems*
2020 NEWLY ELEVATED FELLOWS

Reinhold Haeb-Umbach
Paderborn, Germany

for contributions to robustness of automatic speech recognition

Mohammad Hajiaghayi
College Park, MD, U.S.A.

for contributions to algorithmic graph theory and to algorithmic game theory

Mary Hall
Salt Lake City, UT, U.S.A.

for contributions to compiler optimization and performance tuning

Tarek Hamel
Sophia Antipolis, France

for contributions to the field of aerial robotics

John Harley
Peninsula, OH, U.S.A.

for development of monitoring and pump bearing systems for power transformers

Mark Hasegawa-Johnson
Urbana, IL, U.S.A.

for contributions to speech processing of under-resourced languages

Jinghan He
Beijing, China

for contributions to the protection of substations and traction power

Aaron Hertzmann
San Francisco, CA, U.S.A.

for contributions to computer graphics and animation
2020 NEWLY ELEVATED FELLOWS

Alan Hevner
Tampa, FL, U.S.A.

for contributions to design science and software engineering

Sandra Hirche
Munich, Germany

for contributions to human-machine interaction and networked control

Markus Hofmann
Middletown, NJ, U.S.A.

for leadership in development of content distribution networks

Daesik Hong
Seoul, Korea

for contributions to wireless and cellular communication technologies

Rose Hu
Logan, UT, U.S.A.

for contributions to design and analysis of mobile wireless communications systems

Zhenjiang Hu
Tokyo, Japan

for contributions to robust software development

Zhongsheng Hou
Beijing, China

for contributions to data-driven learning and control with applications in transportation systems

Victor Huang
Cupertino, CA, U.S.A.

for leadership in the development of microprocessors in mobility products
2020 NEWLY ELEVATED FELLOWS

Yo-Ping Huang
Taipei, Taiwan

for contribution to fuzzy and grey modeling in intelligent healthcare systems design

Muhammad Hussain
Austin, TX, U.S.A.

for contributions to flexible and stretchable electronic circuits

Auke Ijspeert
Lausanne, Switzerland

for contributions to biorobotics for locomotion

Benjamin Iniguez
Catalonia, Spain

for contributions to physics-based compact models of semiconductor devices

Akira Inoue
Kobe City, Japan

for development of inverse class-F power amplifiers for mobile phones

Mohammad Saiful Islam
Davis, CA, U.S.A.

for development of sensors and ultra-fast photodetectors

Jan Izykowski
Wroclaw, Poland

for contributions to fault localization in power lines

Philippe Jacquet
Buc, France

for contributions to wireless protocols and communication networks
Weijia Jia  
Macau, Macao

*for contributions to optimal network routing and deployment*

Bin Jiang  
Nanjing, China

*for contributions to intelligent fault diagnosis and fault-tolerant control*

Tianzi Jiang  
Beijing, China

*for contributions to neuroimaging techniques*

Masahiko Jinno  
Kagawa, Japan

*for contributions to elastic optical networks and C- and L-band transmission systems*

Jacob Jones  
Raleigh, NC, U.S.A.

*for development of X-ray scattering methods to understand electromechanical properties of ferroelectrics*

Robert Jopson  
Holmdel, NJ, U.S.A.

*for contributions to the mitigation of polarization effects in optically-amplified lightwave systems*

Eduard Jorswieck  
Braunschweig, Germany

*for contributions to resource allocation in wireless interference networks*

Emil Jovanov  
Huntsville, AL, U.S.A.

*for contributions to wearable health monitoring*
2020 NEWLY ELEVATED FELLOWS

Markku Juntti
Oulu, Finland

for contributions to multiuser and multiantenna communications

William Kaiser
Los Angeles, CA, U.S.A.

for contributions to wireless sensor network technology and its applications to advancing healthcare

Akihiko Kandori
Tokyo, Japan

for contributions to superconductive magnetocardiography and diagnostic technology

Fakhri Karray
Waterloo, ON, Canada

for contributions to intelligent systems

Ramesh Karri
Brooklyn, NY, U.S.A.

for contributions to and leadership in trustworthy hardware

Beth Keser
San Diego, CA, U.S.A.

for contributions to electronic packaging technologies

Eric Klumperink
Enschede, Netherlands

for contributions to thermal noise cancelling and software defined radio architecture

Sven Koenig
Los Angeles, CA, U.S.A.

for contributions to search algorithms and multi-agent coordination
2020 NEWLY ELEVATED FELLOWS

Jeff Krolik  
Durham, NC, U.S.A.  

*for contributions to statistical signal and sensor array processing for radar and sonar*

Martin Kuball  
Bristol, UK  

*for contributions to Raman thermography in semiconductor devices*

Thomas Kuerner  
Braunschweig, Germany  

*for contributions to terahertz data communication*

Hak-Keung Lam  
London, UK  

*for contributions to analysis and design of fuzzy model-based control systems*

Gerard Ledwich  
Brisbane, Australia  

*for development of control of power systems and power electronics*

Kevin Lee  
Menomonee Falls, WI, U.S.A.  

*for contributions to power quality for adjustable speed drives*

Bradley Lehman  
Boston, MA, U.S.A.  

*for contributions to high quality LED lighting and modeling and control of DC-DC converters*

Chris Leighton  
Minneapolis, MN, U.S.A.  

*for contributions to the understanding of magnetic oxides, interfaces, and nanostructure*
Jia Li
University Park, PA, U.S.A.

for contributions to real-time automatic image annotation and image retrieval

Mo Li
Singapore, Singapore

for development of wireless and networked sensing systems

Shihua Li
Nanjing, China

for contributions to the theory of mismatched disturbance rejection in industrial systems

Xiaodong Li
Victoria, Australia

for contributions to large-scale and particle swarm optimization

Xiaofeng Li
Shanghai, China

for contributions to the application of synthetic aperture radar for ocean remote sensing

Yun Li
Glasgow, UK

for application of computational intelligence to system design and control

Yun Wei Li
Edmonton, AB, Canada

for contributions to power electronics converters in microgrids and industrial drives

Gong-Ru Lin
Taipei, Taiwan

for contributions to ultrafast fiber lasers and highspeed laser diodes for optical communications
2020 NEWLY ELEVATED FELLOWS

Wallace Lin
San Jose, CA, U.S.A.

for contributions to understanding transistor charging mechanisms

Richard Lippmann
Wayland, MA, U.S.A.

for contributions to neural networks and assessment of computer security systems

Po-Tsun Liu
Hsinchu, Taiwan

for contributions to thin film transistor technologies

Xue Liu
Montreal, QC, Canada

for contributions to power and performance management of data centers and networked servers

Nuria Llombart Juan
Delft, Netherlands

for contributions to millimeter and submillimeter wave quasi-optical antennas

Jianbo Lu
Northville, MI, U.S.A.

for contributions to the control of automotive systems with applications in vehicle safety and performance

Kartikeyan Machavaram
Roorkee, India

for contributions to high-power millimeter wave and terahertz sources

Yiannos Manoli
Freiburg, Germany

for contributions to the design of integrated analog-to-digital interface circuits and energy harvesting systems
Marco Martorella
Pisa, Italy

for contributions to multi-static inverse synthetic aperture radars

Ujjwal Maulik
Kolkata, India

for development of algorithms in evolutionary clustering and bioinformatics

James McDowall
Wallingford, CT, U.S.A.

for leadership in stationary battery standards and energy storage industry

Claudio Melchiorri
Bologna, Italy

for design and control of robot hands and telemanipulation systems

Michael Miller
Baltimore, MD, U.S.A.

for contributions to medical imaging, brain mapping, and computational anatomy

Durgamadhab Misra
Newark, NJ, U.S.A.

for contributions to the reliability of CMOS gate stacks with high-k dielectrics

Massimo Mitolo
Irvine, CA, U.S.A.

for contributions to the electrical safety of low-voltage systems

Michael Mitzenmacher
Cambridge, MA, U.S.A.

for contributions to coding theory and networking algorithms
Amir-Hamed Mohsenian-Rad
Riverside, CA, U.S.A.

for contributions to optimal resource management in wireless networks and the smart grid

Mohamed Mokbel
Minneapolis, MN, U.S.A.

for contributions to building spatially- and privacy-aware systems

Guido Montorsi
Torino, Italy

for contributions to error-correcting codes and iterative decoding

Mutsuhiro Mori
Mito, Japan

for contributions to high voltage insulated gate bipolar transistors for traction and high voltage systems

Kirsten Morris
Waterloo, ON, Canada

for contributions to control and estimator design for infinite-dimensional systems

Yasamin Mostofi
Santa Barbara, CA, U.S.A.

for contributions to control and communications co-optimization in mobile sensor networks

Meinard Mueller
Erlangen, Germany

for contributions to music signal processing

Robert Murphy
Pittsburgh, PA, U.S.A.

for contributions to machine learning algorithms for biological images
2020 NEWLY ELEVATED FELLOWS

Luiz Augusto Nobrega Barroso
Rio de janeiro, Brazil

for leadership in analytical methods for power system economics and regulation

Saeid Nahavandi
Victoria, Australia

for contributions to haptically-enabled robotic systems

Marc Najork
Palo Alto, CA, U.S.A.

for contributions to web crawling and web data processing

Patrick Naylor
London, UK

for contributions to signal processing for speech dereverberation and analysis

Moshe Nazarathy
Haifa, Israel

for contributions to optical systems and analog fiber-optic transmission

Bich-Yen Nguyen
Austin, TX, U.S.A.

for contributions to silicon on insulator technology

Shouleh Nikzad
Pasadena, CA, U.S.A.

for contributions to ultraviolet detectors for space applications

Vasilis Ntziachristos
Munich, Germany

for contributions to optoacoustic imaging and intraoperative fluorescence imaging
Marcia O’Malley
Houston, TX, U.S.A.

_for contributions to rehabilitation robotics and haptic systems_

Burak Ozpineci
Oak Ridge, TN, U.S.A.

_for contributions to transportation electrification and wireless charging of electric vehicles_

Partha Pande
Pullman, WA, U.S.A.

_for contributions to network-on-chip architectures for manycore computing_

Panagiotis Papadimitratos
Stockholm, Sweden

_for contributions to wireless mobile network security and privacy_

Byung-Gook Park
Seoul, Korea

_for contributions to charge trap flash memory and multiple patterning technology_

Chul Soon Park
Daejeon, Korea

_for development of low power millimeter-wave circuits and packages_

Mugen Peng
Beijing, China

_for contributions to radio resource management of wireless networks_

Ana Perez-Neira
Barcelona, Spain

_for contributions to signal processing for satellite communications and systems_
2020 NEWLY ELEVATED FELLOWS

Michael Perrott
Nashua, NH, U.S.A.

for contributions to phase-locked loop integrated circuits

Ullrich Pfeiffer
Wuppertal, Germany

for development of silicon-based millimeter-wave and terahertz circuits and systems

Pierre Pinson
Lyngby, Denmark

for contributions to wind forecasting techniques in renewable energy integration

Pierluigi Poggiolini
Torino, Italy

for contributions to modeling of nonlinear propagation in coherent fiber-optic systems

Sara Pozzi
Ann Arbor, MI, U.S.A.

for contributions to neutron detection techniques and neutron transport Monte Carlo methods

Maria Prandini
Milano, Italy

for contributions to stochastic, hybrid and distributed control systems theory

Dennis Prather
Newark, DE, U.S.A.

for contributions to diffractive optical systems

Markus Pueschel
Zurich, Switzerland

for contributions to the implementation of signal processing techniques
2020 NEWLY ELEVATED FELLOWS

Wei Qiao
Lincoln, NE, U.S.A.

for contributions to condition monitoring and control of power electronics interfaced rotating machine systems

Daniel Rabideau
Lexington, MA, U.S.A.

for contributions to radar architectures and technologies

Hesham Rakha
Blacksburg, VA, U.S.A.

for contributions to optimization, modeling and assessment of transportation systems

Hong Rao
Guangzhou, China

for leadership and contributions to the design and application of HVDC in AC/DC grids

Joseph Reinhardt
Iowa City, IA, U.S.A.

for contributions to medical image processing and analysis

Christ Richmond
Tempe, AZ, U.S.A.

for contributions to adaptive array processing algorithms

George Ridley
Rugby, UK

for contribution to stator core insulation condition analysis in large hydroelectric generators

Jae-Sung Rieh
Seoul, Korea

for contributions to silicon-germanium integrated circuits for wireless communications
Chuntaek Rim
Seoul, Korea

for contributions to wireless power transfer for electric vehicles and mobile devices

Steven Ringel
Columbus, OH, U.S.A.

for contributions to compound semiconductor photovoltaics

Joel Rodrigues
Santa Rita de Sapucai, Brazil

for contributions to Internet of Things and vehicular communications

Punam Saha
Iowa City, IA, U.S.A.

for contributions to quantitative bone microstructural imaging and analysis

Vivek Sarkar
Atlanta, GA, U.S.A.

for contributions to compiler technologies for high-performance computing

William Scanlon
Larne, UK

for contributions to antenna design for wearable and implantable applications

Manfred Schindler
Newtonville, MA, USA

for development in microwave switch technology for radar and wireless communication systems

Kevin Schneider
Seattle, WA, U.S.A.

for contributions to the development of open-access tools for distribution system analysis
2020 NEWLY ELEVATED FELLOWS

Tanja Schultz
Bremen, Germany

*for contributions to multilingual speech recognition and biosignal processing*

Sirish Shah
Edmonton, ON, Canada

*for contributions to process and performance monitoring*

Vladimir Shiltsev
Batavia, IL, U.S.A.

*for development of electron lenses and contributions to accelerator technology and beam physics*

Nabil Simaan
Nashville, TN, U.S.A.

*for contributions to dexterous continuum robotics for surgery*

Dimitra Simeonidou
Bristol, UK

*for contributions to optical networking systems and applications*

Evgenia Smirni
Williamsburg, VA, U.S.A.

*for contributions to modeling and performance forecasting of complex systems*

Joshua Smith
Seattle, WA, U.S.A.

*for contributions to far-and-near-field wireless power, backscatter communication, and electric field sensing*

Alex Snoeren
La Jolla, CA, U.S.A.

*for contributions to management and security of networked systems*
Yong Song  
Chongqing, China  

for contributions to neural adaptive and fault-tolerant control techniques

Sarah Spurgeon  
Canterbury, UK  

for contributions to variable structure control and estimation

Dipti Srinivasan  
Singapore, Singapore  

for contributions to computational intelligence for Smart Grid

Gookwon Suh  
Ithaca, NY, U.S.A.  

for contributions to the development of secure hardware circuits and processors

Nian-Xiang Sun  
Boston, MA, U.S.A.  

for contributions to integrated magnetic and magnetoelectric materials and devices

Karthikeyan Sundaresan  
Princeton, NJ, U.S.A.  

for contributions to algorithms for mobile networking and computing

Yuji Suzuki  
Tokyo, Japan  

for development of electret materials

Osamu Tabata  
Kyoto, Japan  

for contributions to the development and commercialization of micro electro mechanical systems
2020 NEWLY ELEVATED FELLOWS

Atsuo Takanishi
Tokyo, Japan

*for contribution to the development of humanoid robots*

Hwa Yaw Tam
Kowloon, Hong Kong

*for contributions to fiber sensing networks for railway predictive maintenance*

Bruce Terris
Sunnyvale, CA, U.S.A.

*for contributions to high density magnetic recording and spintronic materials*

Ravi Todi
San Jose, CA, U.S.A.

*for contributions to innovative design and commercialization of high performance eDRAM*

Joel Tropp
Pasadena, CA, U.S.A.

*for contributions to sparse signal processing*

Gokhan Tur
Los Altos, CA, U.S.A.

*for leadership in spoken language understanding and applications to virtual personal assistant products*

Pavan V. Hanumolu
Urbana, IL, U.S.A.

*for contributions to the design of mixed-signal integrated circuits*

Shahrokh Valaee
Toronto, ON, Canada

*for contributions to localization of wireless nodes*
Dimitri Van De Ville
Geneva, Switzerland

for contribution to image processing for computational brain imaging

Peter Varman
Houston, TX, U.S.A.

for contributions to input/output scheduling algorithms for storage systems

Malathi Veeraraghavan
Charlottesville, VA, U.S.A.

for contributions to control-plane architectures, signal protocols and hybrid networks

Narasimham Vempati
Chandler, AZ, U.S.A.

for contributions to power system state estimation and transmission congestion markets

Mahinda Vilathgamuwa
Brisbane, Australia

for contributions to power quality and grid storage

Ba-Ngu Vo
Perth, Australia

for contributions to the theory of multiple object tracking and estimation

Aaron Wagner
Ithaca, NY, U.S.A.

for contributions to distributed data compression

Haining Wang
Newark, DE, U.S.A.

for contributions to network and cloud security
2020 NEWLY ELEVATED FELLOWS

Tza-Huei Wang
Baltimore, MD, U.S.A.

for contributions to micro-and-nano-technologies for biomedical applications

Yunhong Wang
Beijing, China

for contributions to iris and face recognition

John Watson
Aberdeen, UK

for contributions to the development of submersible holography and in-situ imaging of marine organisms

Yonggang Wen
Singapore, Singapore

for contributions to cloud systems for multimedia signal processing and communications

Richard Wesel
Los Angeles, CA, U.S.A.

for contributions to channel coding and reliable communication

Joerg Widmer
Madrid, Spain

for contributions to wireless networking and millimeter-wave communications

Sheldon Williamson
Oshawa, ON, Canada

for contributions to electric energy storage systems for transportation electrification

Steve Wozniak
Los Gatos, CA, U.S.A.

for development of personal computers
2020 NEWLY ELEVATED FELLOWS

Hongyi Wu
Norfolk, VA, U.S.A.

_for contributions to resilient mobile computing systems_

Ligang Wu
Harbin, China

_for contributions to sliding mode control and robust filtering_

Pengfei Xia
San Diego, CA, U.S.A.

_for contributions to multi-input multi-output millimeter wave wireless communications_

Yang Xiang
Melbourne, Australia

_for contributions to network and system security_

Yang Xiao
Tuscaloosa, AL, U.S.A.

_for contributions to wireless medium access control_

Jiang Xie
Charlotte, NC, U.S.A.

_for contributions to mobility and resource management of wireless networks_

Guoliang Xing
Hong Kong, Hong Kong

_for contributions to sensor networks and low-power wireless networks_

Mengdao Xing
Xian, China

_for contributions to radar imaging and motion compensation algorithms_
2020 NEWLY ELEVATED FELLOWS

Hui Xiong
Beijing, China

for contributions to data mining and mobile computing

Huazhong Yang
Beijing, China

for low-power circuit techniques for sensor applications and design automation

Lan Yang
Saint Louis, MO, U.S.A.

for contributions to optical sensing and non-Hermitian photonics

Laurence Tianruo Yang
Antigonish, NS, Canada

for contributions to modeling and design for cyber-physical-social systems

Shiwen Yang
Chengdu, China

for development of time-modulated antenna arrays

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Jianjun Yu
Basking Ridge, NJ, U.S.A.

for contributions to high-performance optical fiber communication systems
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Zeev Zalevsky
Ramat-Gan, Israel

_for contributions to super-resolved imaging and remote biomedical sensing_

Masoud Zargari
Irvine, CA, U.S.A.

_for contributions to the development of CMOS radio-frequency integrated circuits_

Yonghong Zeng
Singapore, Singapore

_for contributions to spectrum sensing and medium access control in cognitive radio_

Zhigang Zeng
Wuhan, China

_for contributions to analysis and synthesis of neurodynamic systems_

Bing Zhang
Beijing, China

_for contributions to hyperspectral image acquisition and processing_

Lei Zhang
Beijing, China

_for contributions to large-scale visual recognition and multimedia information retrieval_

Tong Zhang
Clearwater Bay, Hong Kong

_for contributions to machine learning algorithms_

Tong Zhang
Albany, NY, U.S.A.

_for contributions to system design and VLSI implementation for data storage_
Xiao-Ping Zhang  
Birmingham, UK  

for contributions to modeling and control of high-voltage DC and AC transmission systems

Xiaowu Zhang  
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for contributions to three-dimensional integrated circuits

Yan Zhang  
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for contributions to resource management in wireless networks

Yi Zhang  
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Yingjun Zhang  
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for contributions to resource allocation and optimization in wireless communications

Zhongfei Zhang  
Binghamton, NY, U.S.A.  

for contributions to multimodal data content understanding and mining

Dongbin Zhao  
Beijing, China  

for contributions to adaptive dynamic programming and reinforcement learning

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