

2018 Newly Elevated Fellows

Pieter Abbeel
University of California - Berkeley
Berkeley, CA, USA

for contributions to apprenticeship and reinforcement learning for robotics and autonomous systems

Pamela Ann Abshire
Silver Spring, MD, USA

for contributions to CMOS biosensors

Haithem Abu-rub
Texas A&M University
College Station, TX, USA

for contributions to power electronic converters for renewable energy applications

Erik Agrell
Chalmers University of Technology
Goteborg, Sweden

for contributions to coding and modulation in optical communications

Fauzia Ahmad
Temple University
Philadelphia, PA, USA

for contribution to through-the-wall radar imaging

Anastasia Ailamaki
Ecole Polytechnique Federale de Lausanne
Lausanne, Switzerland

for contributions to hardware-conscious database systems and scientific data management

Matteo Albani
Firenze, Italy

for contributions to the uniform geometrical theory of diffraction

Andrew Alleyne
University of Illinois
Urbana, IL, USA

for contributions to the control of thermal management systems

2018 Newly Elevated Fellows

Pietro Andreani
Lund University
Lund, Sweden

for contributions to CMOS integrated voltage-controlled oscillators

Walid Aref
Purdue University
West Lafayette, IN, USA

for contributions to spatio-temporal database indexing and query processing

Kohtaro Asai
Mitsubishi Electric Corporation
Tokyo, Japan

for contributions to video coding development and standardization

Hajime Asama
University of Tokyo
Tokyo, Japan

for contributions to distributed autonomous robotic systems

Bertan Bakkaloglu
Arizona State University-Tempe
Scottsdale, AZ, USA

for contributions to radio frequency circuits

Bijnan Bandyopadhyay
IIT Bombay
Mumbai, India

for contributions to discrete-time, multi-rate, output feedback sliding-mode control

Paul Barford
University of Wisconsin
Madison, WI, USA

for contributions to Internet measurement and security

2018 Newly Elevated Fellows

N. Scott Barker
University of Virginia
Charlottesville, VA, USA

for contributions to millimeter-wave and terahertz micromachining

Erik Blasch
US Dept. of Air Force
Rome, NY, USA

for leadership in aerospace information fusion systems

Glenn Boreman
University North Carolina at Charlotte
Charlotte, NC, USA

for contributions to optical and infrared antenna technologies

Vicente Boria
Universidad Politecnica de Valencia
Valencia, Spain

for contributions to high-power microwave filters and multiplexers

Timothy Boykin
University of Alabama
Huntsville, AL, USA

for contributions to atomistic models for semiconductor device simulation

Maurizio Bozzi
University of Pavia
Pavia, Italy

for contributions to substrate integrated waveguides and integrated periodic structures

Oliver Brock
Technische Universität Berlin
Berlin, Germany

for contributions to mobile manipulation and grasping

2018 Newly Elevated Fellows

Alexander Bronstein
Tel Aviv University
Tel Aviv, Israel

for contributions to three-dimensional geometric processing in imaging

Charles Bunting
Oklahoma State University
Stillwater, OK, USA

for educational contributions to electromagnetic compatibility and reverberation chambers

Karen Butler-Purry
Texas A&M University
College Station, TX, USA

for contributions to expanding minority participation in power systems education

Marco Caccamo
University of Illinois at Urbana-Champaign
Urbana, IL, USA

for contributions to the theory and applications of hard real-time multicore computing

Yigang Cai
Naperville, IL, USA

for innovations in high-speed wireless networks

Giuseppe Calafiore
Politecnico di Torino
Torino, Italy

for contributions to probabilistic methods for robust control design

Jeffrey Calame
Annapolis, MD, USA

for contributions to high-power microwave and millimeter-wave amplifiers enabled by composite dielectric materials

2018 Newly Elevated Fellows

Linda Camp
Indiana State University
Bloomington, IN, USA

for research in human-centered risk and security

Mark Campbell
Cornell University
Ithaca, NY, USA

for contributions to control and estimation theory for autonomous systems

Gustavo Camps-Valls
Universitat de Valencia
Valenciana, Spain

for contributions to machine learning in remote sensing

Emmanuel Candes
Stanford University
Stanford, CA, USA

for contributions to sparse and low-rank signal and image processing

Leo Casey
San Francisco, CA, USA

for contributions to high-speed power electronic interfaces for grid-tied distributed resources

Sherman Chan
Aspen Incorporated
San Mateo, CA, USA

for contributions to power system modeling and analysis tools for protective relaying

Chip Hong Chang
Nanyang Technical University
Singapore, Singapore

for contributions to hardware security

2018 Newly Elevated Fellows

Kun-Yung Chang
Los Altos Hills, CA, USA

for contributions to transceivers for high-performance networking and high-density memories

Ni-Bin Chang
University of Central Florida
Orlando, FL, USA

for contributions to computational techniques for the analysis of environmental sustainability

Tsung-Yung Chang
Taiwan Semiconductor Manufacturing Company
Hsinchu, Taiwan

for application of SRAM technology to low-power and high-performance computing

Kuan-Neng Chen
National Chiao Tung University
Hsinchu, Taiwan

for contributions to 3D integrated circuit and packaging technologies

Wen-Hua Chen
Loughborough University
Loughborough, UK

for contributions to the applications of nonlinear disturbance observer based control

Yi-Jan Emery Chen
National Taiwan University
Taipei, Taiwan

for contributions to monolithic RF CMOS power amplifiers and transceiver frontends

Yiran Chen
Pittsburgh, PA, USA

for contributions to spintronic memory

Po-Tai Cheng
National Tsing Hua University
Hsinchu, Taiwan

for contributions to power converters for microgrid applications

2018 Newly Elevated Fellows

Richard Chernock
Triveni Digital
Princeton, NJ, USA

for leadership in next generation digital TV

Yiu-Ming Cheung
Hong Kong Baptist University
Kowloon, Hong Kong

for contributions to cluster analysis and visual computing

Carla Chiasserini
Politecnico di Torino
Torino, Italy

for contributions to energy efficiency and cooperation in wireless networks

Gianfranco Chicco
Politecnico di Torino
Torino, Italy

for contributions to data analytics for smart metering

Gary Christensen
University of Iowa
Iowa City, IA, USA

for contributions to medical image registration and analysis

Oscar Cordon
University of Granada
Granada, Spain

for contributions to genetic and evolutionary fuzzy systems

Thomas Coughlin
San Jose, CA, USA

for leadership in consumer electronics digital storage technology

2018 Newly Elevated Fellows

Jian Dai
King's College of London
London, UK

for contributions to reconfigurable and metamorphic mechanisms

Swaroop Darbha
Texas A&M University
College Station, TX, USA

for contributions to intelligent transportation systems and autonomous vehicles

Ewa Deelman
University of Southern California
Marina Del Rey, CA, USA

for contributions to scientific workflow management

Andreas Demosthenous
University College London
London, UK

for contributions to integrated circuits for active medical devices

Jaydev Desai
Georgia Institute of Technology
Atlanta, GA, USA

for contributions to medical and swarm robotics

Po Dong
Nokia Bell Labs
Holmdel, NJ, USA

for contributions to silicon-based photonic devices and integrated circuits

Qian Du
Mississippi State University
Mississippi State, MS, USA

for contributions to hyperspectral data processing

2018 Newly Elevated Fellows

Alan Edelman
Massachusetts Institute of Technology
Cambridge, MA, USA

for contributions to the development of technical-computing languages

Lieven Eeckhout
Ghent University
Gent, Belgium

for contributions in computer architecture performance analysis and modeling

Karen Egiazarian
Tampere University of Technology
Tampere, Finland

for contributions to image and video denoising and restoration

Daniel Ellis
Columbia University
New York, NY, USA

for contributions to speech, audio, and music processing

Ehab El-Saadany
University of Waterloo
Waterloo, ON, Canada

for contributions to distributed generation planning, operation and control

Fariba Fahroo
Defense Advanced Research Projects Agency
Arlington, VA, USA

for contributions to computational optimal control theory

Liping Fang
Ryerson University
Toronto, ON, Canada

for contributions to multiple participant-multiple objective decision making and decision support systems

2018 Newly Elevated Fellows

Hany Farid
Dartmouth College
Hanover, NH, USA

for contributions to digital forensics

Dario Farina
University Medical Center Göttingen
Göttingen, Germany

for contributions to neuromuscular electrophysiology and neurorehabilitation

Steven Feiner
Columbia University
New York, NY, USA

for contributions to augmented reality and computer graphics

James Feltes
Siemens Power Technologies
Schenectady, NY, USA

for contributions to modelling the dynamic response of power generation systems

Massimo Franceschetti
University of California-San Diego
La Jolla, CA, USA

for contributions to random wireless networks

James Friend
University of California-San Diego
La Jolla, CA, USA

for contributions to acoustics, microfluidics and microactuation

Pascal Frossard
EPFL-École polytechnique fédérale de Lausanne
Lausanne, Switzerland

for contributions to adaptive image and video representation, coding and communication

2018 Newly Elevated Fellows

Kevin Fu
University of Michigan
Ann Arbor, MI, USA

for contributions to embedded and medical device security

Akira Fujiwara
NTT Basic Research Laboratories
Atsugi, Japan

for contributions to silicon single-electron devices

Thomas Furness
University of Washington
Seattle, WA, USA

for leadership in virtual and augmented reality

Andrea Galtarossa
Università degli Studi di Padova
Padova, Italy

for contributions to low polarization mode dispersion fibers

Dave Garrett
Tustin, CA, USA

for contributions to beam-forming architectures and implementations

Alexander Gelman
NETovations, LLC
Princeton, NJ, USA

for contributions to technologies for streaming and controlling digital video

Mounir Ghogho
Université Internationale de Rabat
Rabat, Morocco

for contributions to synchronization algorithms for communication systems

2018 Newly Elevated Fellows

Maria Gini
University of Minnesota - Twin Cities
Minneapolis, MN, USA

for contributions to multi-agent programming in robotics

Yihong Gong
Xi'an Jiaotong University
Xi'an City, China

for contributions to pattern recognition and multimedia content analysis

Stefano Grivet-Talocia
Politecnico Di Torino
Torino, Italy

for contributions to passive macromodeling for signal and power integrity

Cuntai Guan
Nanyang Technological University
Singapore, Singapore

for contributions to brain-computer interfaces and applications

Xinping Guan
Shanghai Jiao Tong University
Shanghai, China

for contributions to stability analysis for time-delay fuzzy systems and intelligent control of nonlinear systems

Minyi Guo
Shanghai Jiao Tong University
Shanghai, China

for contributions to performance optimization and resource management of parallel and distributed systems

Yongxin Guo
National University of Singapore
Singapore, Singapore

for contributions to wideband printed antennas

2018 Newly Elevated Fellows

Jung-Ik Ha
Seoul National University
Seoul, Korea

for contribution to sensorless control of AC drives

Martin Haardt
Ilmenau University of Technology
Ilmenau, Germany

for contributions to multi-user MIMO communications and tensor-based signal processing

Harald Haas
University of Edinburgh
Edinburgh, UK

for leadership in the design of visible-light and wireless communication systems

Hashem Hashemian
Analysis and Measurement Services Corp.
Knoxville, TN, USA

for leadership in developing technologies for nuclear reactor monitoring

Haibo He
University of Rhode Island
Kingston, RI, USA

for contributions to adaptive learning

Tian He
University of Minnesota - Twin Cities
Minneapolis, MN, USA

for development and optimization of networked sensing systems

Jeffrey Herd
MIT Lincoln Laboratory
Lexington, MA, USA

for leadership in the development of low-cost phased array technology

2018 Newly Elevated Fellows

Yoshihito Hirano
Mitsubishi Electric Corporation
Tokyo, Japan

for leadership in the development of 1.5-micron wind sensing lidar

Michel Houssa
University of Leuven
Leuven, Belgium

for contributions to materials characterization for advanced MOSFETs

Naira Hovakimyan
University of Illinois at Urbana-Champaign
Urbana, IL, USA

for contributions to control with applications to aerospace and robotic systems

Jonathan How
Massachusetts Institute of Technology
Cambridge, MA, USA

for contributions to guidance and control of air and space vehicles

David Howe
US National Institute of Standards & Technology
Boulder, CO, USA

for contributions to global time synchronization

David Hsu
National University of Singapore
Singapore, Singapore

for contributions to robot motion planning

Biao Huang
University of Alberta
Edmonton, AB, Canada

for contributions to and application of Bayesian soft-sensing for control performance monitoring

2018 Newly Elevated Fellows

Qingming Huang
University of Chinese Academy of Sciences
Beijing, China

for contributions to multimedia content analysis and visual perceptual processing

Pan Hui
University of Helsinki
Hong Kong University of Science & Technology
Clear Water Bay, Hong Kong

for contributions to social-based opportunistic networks

Brad Hutchings
Brigham Young University-Provo
Provo, UT, USA

for contributions to CAD tools for reconfigurable computing

Jaroslav Hyneczek
Allen, TX, USA

for contributions to solid-state image sensors

Kullervo Hynynen
Imaging Research
Toronto, ON, Canada

for contributions to image-guided therapeutic focused ultrasound

Leon Iasemidis
Louisiana Technical University
Ruston, LA, USA

for developments in epileptic seizure prediction and closed-loop brain stimulation

Anil Jampala
Alstom Grid, Inc.
Redmond, WA, USA

for contributions to the utilization of synchrophasors in energy management systems

2018 Newly Elevated Fellows

Somesh Jha
University of Wisconsin-Madison
Madison, WI, USA

for contributions to the application of formal methods to security

Jiaya Jia
Chinese University of Hong Kong
Shatin NT, Hong Kong

for contributions to deblurring techniques in computational photography

Lynette Jones
Massachusetts Institute of Technology
Cambridge, MA, USA

for contributions to tactile and thermal displays

Sergei Kalinin
Oak Ridge National Laboratory
Oak Ridge, TN, USA

for leadership in piezoresponse force microscopy for nanoscale imaging

George Karypis
University of Minnesota-Twin Cities
Minneapolis, MN, USA

for contributions to graph partitioning and data mining

Aleksandar Kavcic
University of Hawaii
Honolulu, HI, USA

for contributions to signal processing and coding in data storage

Noriko Kawakami
Toshiba Mitsubishi-Electric Industrial Systems Corp.
Tokyo, Japan

for contributions to large-capacity power converters and applications

2018 Newly Elevated Fellows

Thomas Kazior
Raytheon: Radio Frequency Components
Andover, MA, USA

for leadership in microwave and millimeter wave compound semiconductor technology and heterogeneous integration with silicon

Angelos Keromytis
Defense Advanced Research Projects Agency (DARPA)
Arlington, VA, USA

for contributions to network security systems

Sung Kim
Seoul National University
Seoul, Korea

for contributions to the design of microfabricated neural prosthetic devices

Brian E.D. Kingsbury
IBM T. J. Watson Research Center
Yorktown Heights, NY, USA

for contributions to acoustic models for automatic speech recognition

Roberta Klatzky
Carnegie Mellon University
Pittsburgh, PA, USA

for contributions to human visual, auditory, and haptic perception in robotics and virtual environments

Lang Klaus
Fraunhofer Institute for Reliability
and Microintegration IZM
Berlin, Germany

for leadership in heterogeneous integration and microelectronic packaging

Xenofon Koutsoukos
Vanderbilt University
Nashville, TN, USA

for contributions to design of resilient cyber-physical systems

2018 Newly Elevated Fellows

Michael Krames
Philips Lumileds Lighting Company
San Jose, CA, USA

for leadership in GaN-based light-emitting device physics and its commercialization

D. Richard Kuhn
US National Institute of Standards & Technology
Boulder, CO, USA

for contributions to access control and combinatorial test methods

Ajay Kumar
Hong Kong Polytechnic University
Kowloon, Hong Kong

for contributions to non-contact hand-based biometrics recognition

Isaac Lagnado
San Diego, CA, USA

for leadership in the development of silicon-on-sapphire technology

Pablo Laguna Lasosa
University of Zaragoza
Zaragoza, Spain

for contributions to cardiac biomedical signal processing

Susan Land
US Department of Defense
Madison, AL, USA

for leadership in software product development

Jungwon Lee
Samsung Semiconductor Inc.
San Diego, CA, USA

for contributions to signal processing for cellular modems

2018 Newly Elevated Fellows

Riccardo Leonardi
University of Brescia
Brescia, Italy

for contributions to image and video compression and multimedia semantic content analysis

Hui Li
Florida State University
Tallahassee, FL, USA

for contributions to bidirectional converters for utility applications and high efficiency photovoltaic converters

Qun Li
College of William & Mary
Williamsburg, VA, USA

for contributions to ad-hoc network routing and sensor networks

Tao Li
University of Florida
Gainesville, FL, USA

for contributions to sustainable and power-efficient computer architectures

Zhuo Li
Cadence Design Systems, Inc.
Austin, TX, USA

for contributions to physical synthesis and modeling of integrated circuits

Ben Liang
University of Toronto
Toronto, ON, Canada

for contributions to mobility modeling and resource management in wireless networks

Jiao Li-cheng
Xidian University
Xian, China

for contributions to artificial neural networks and evolutionary computation

2018 Newly Elevated Fellows

Chia-Wen Lin
National Tsing Hua University
Hsinchu, Taiwan

for contributions to multimedia coding and editing

Wei Lin
Case Western Reserve University
Cleveland, OH, USA

for contributions to nonlinear control systems

Zhouchen Lin
Peking University
Beijing, China

for contributions to low-rank data modeling and image processing

Giuseppe Lipari
University of Lille
Lille, France

for contributions to reservation-based real-time scheduling

Chee Wee Liu
National Taiwan University
Taipei, Taiwan

for contributions to high-mobility germanium and silicon-germanium MOSFETs

Jie Liu
Microsoft Research
Redmond, WA, USA

for contributions to wireless sensing

Ming Liu
Institute of Microelectronics of Chinese Academy of Sciences
Beijing, China

for contributions to the development of resistive non-volatile memories

2018 Newly Elevated Fellows

Shengyi Liu
The Boeing Company
Seattle, WA, USA

for application of multifunctional power conversion and power source integration to aircraft

Guo-Quan Lu
Virginia Tech
Blacksburg, VA, USA

for development of materials and packaging technologies for power electronics modules

Jie Lu
University of Technology Sydney
Sydney, NSW, Australia

for contributions to fuzzy machine learning and decision support systems

Wei Lu
University of Michigan
Ann Arbor, MI, USA

for contributions to development of neuromorphic systems

Yilong Lu
Nanyang Tech University
Singapore, Singapore

for contributions to array antenna techniques in radar systems

John Luginsland
Air Force Office of Scientific Research
Arlington, VA, USA

for contributions to space-charge limited flow physics, coherent radiation sources, and computational plasma physics

Richard Lukaszewski
Rockwell Automation
Mequon, WI, USA

for contributions to the application of power electronic devices for variable frequency drives

2018 Newly Elevated Fellows

Xiaobing Luo
Huazhong University of Science & Technology
Wuhan, China

for contributions to packaging of optoelectronic devices

Shugen Ma
Ritsumeikan University
Kusatsu-Shi, Japan

for contributions to the design and control of environment-adaptive robots

Zhenqiang Ma
University of Wisconsin-Madison
Madison, WI, USA

for contributions to flexible and biodegradable microwave electronics

Udaya Madawala
University of Auckland
Auckland, New Zealand

for contributions to power electronics for bi-directional wireless power transfer

Guoqiang Mao
University of Technology Sydney
Sydney, NSW, Australia

for contributions to localization algorithms for wireless networks

Vladimir Marik
Czech Institute of Informatics
Prague, Czech Republic

for leadership in industrial applications of cybernetics

Sonia Martinez
University of California-San Diego
La Jolla, CA, USA

for contributions to the geometric mechanics and control

2018 Newly Elevated Fellows

Saverio Mascolo
Politecnico di Bari
Bari, Italy

for contributions to modeling and control of congestion in packet networks

Andrea Massa
University of Trento
Trento, Italy

for contributions to phased arrays and electromagnetic inverse scattering

Sanu Mathew
Intel Corporation
Hillsboro, OR, USA

for leadership in computer arithmetic datapath and security circuits

Earl Mc Cune
RF Communications Consulting
Santa Clara, CA, USA

for leadership in polar modulation circuits and signals

Paul Meaney
Thayer School of Engineering at Dartmouth
Hanover, NH, USA

for contributions to microwave tomography and its translation to clinical use

Deepankar Medhi
University of Missouri-Kansas City
Kansas City, MO, USA

for contributions to optimization and the design of computer-communication networks

Russell Meier
Milwaukee School of Engineering
Milwaukee, WI, USA

for contributions to global on-line engineering education

2018 Newly Elevated Fellows

Tommaso Melodia
Northeastern University
Boston, MA, USA

for contributions to underwater acoustic and multimedia networks

Abraham Mendelson
Technion-Israel Institute of Technology
Haifa, Israel

for contributions to power-aware architecture and value prediction for program execution

Olgica Milenkovic
University of Illinois at Urbana-Champaign
Urbana, IL, USA

for contributions to genomic data compression

Jelena Masic
Ryerson University
Toronto, ON, Canada

for contributions to modeling and performance evaluation in wireless communications

Andrea Montanari
Stanford University
Stanford, CA, USA

for applications of statistical physics to coding theory

Mehul Motani
National University of Singapore
Singapore, Singapore

for contributions to wireless communications and sensor networks

Hideki Motoyama
Central Research Institute of Electric Power Industry Corporation
Yokosuka, Japan

for contributions to lightning protection and insulation coordination of electric power systems

2018 Newly Elevated Fellows

Saibal Mukhopadhyay
Georgia Institute of Technology
Atlanta, GA, USA

for contributions to energy-efficient and robust computing systems design

Chandra Nair
Chinese University of Hong Kong
Shatin NT, Hong Kong

for contributions to network information theory

Girish Nair
University of Melbourne
Victoria, Australia

for contributions to control and information in networked dynamical systems

Hans Peter Nee
KTH Royal Institute of Technology
Stockholm, Sweden

for contributions to silicon carbide power electronics and modular multilevel converters

Silviu-Iulian Niculescu
Centre National de la Recherche Scientifique
Paris, France

for research on the effects of delays in system dynamics

Konstantina Nikita
National Technical University of Athens
Athens, Greece

for contributions to bioelectromagnetics and implantable antennas for medical applications

Barbara Oakley
Oakland University
Rochester, MI, USA

for outreach through online engineering pedagogy

2018 Newly Elevated Fellows

Hideo Ohno
Tohoku University
Sendai, Japan

for contributions to materials and device design for spintronics

Yew-Soon Ong
Nanyang Technological University
Singapore, Singapore

for contributions to memetic computation and applications

Hidetoshi Onodera
Kyoto University
Kyoto, Japan

for contributions to variation-aware design and analysis of integrated circuits

Javier Ortega-Garcia
Universidad Autonoma de Madrid
Madrid, Spain

for contributions to biometrics for forensic speaker verification and signature recognition

Lawrence Ozarow
Nokia- Bell Labs
New Providence, NJ, USA

for contributions to capacity characterization of fading and feedback channels

Hitay Ozbay
Bilkent University
Bilkent, Turkey

for contributions to robust control for infinite dimensional systems

Philippe Paillet
University of Montpellier-CEA
Paris, France

for contributions to the understanding of radiation effects in electronics

2018 Newly Elevated Fellows

Patrick Panciatici
Réseau de Transport d'Électricité
Paris, France

for contributions to power systems analysis software

Stefan Parkvall
Ericsson AB
Stockholm, Sweden

for contributions to cellular standards

Jignesh Patel
University of Wisconsin
Madison, WI, USA

for contributions to high-performance spatial data analysis methods

Constantinos S. Pattichis
University of Cyprus
Nicosia, Cyprus

for contributions to medical diagnostic and mobile health systems

Shanthi Pavan
Indian Institute of Technology
Chennai, India

for contributions to delta sigma modulators and analog filters

George Pavlou
University College London
London, UK

for contributions to resource management and content-based networking

Joseph Pawlowski
Micron Technology, Inc.
Boise, ID, USA

for contributions to memory system interfaces

2018 Newly Elevated Fellows

Peter Perkins
Tigard, OR, USA

for contributions to touch current measurement and electric shock protection

Alexei Pilipetskii
Tyco Telecommunications
Eatontown, NJ, USA

for contributions to transoceanic fiber-optic transmission systems

Josien Pluim
Eindhoven University of Technology
Eindhoven, Netherlands

for contributions to medical image analysis

Massimo Poncino
Politecnico Di Torino
Torino, Italy

for contributions to low-power circuits and systems

John Potter
Centre for Maritime Research and Experimentation (CMRE)
La Spezia, Italy

for contributions to ice-ocean interaction, oceanography, and underwater communication

Paras Prasad
State University of New York at Buffalo
Buffalo, NY, USA

for contributions in biophotonics, nanophotonics and novel biomedical technology

Konstantinos Psounis
University of Southern California
Los Angeles, CA, USA

for contributions to multi-hop wireless networks

2018 Newly Elevated Fellows

Hairong Qi
University of Tennessee
Knoxville, TN, USA

for contributions to collaborative signal processing in sensor networks

Jianmin Qu
Northwestern University
Evanston, IL, USA

for contributions to design and reliability analysis for microelectronic packaging

Ronghai Qu
Huazhong University of Science & Technology
Wuhan, China

for contributions to flux modulations machines and wind generators

Tony Quek
Singapore University of Technology
Singapore, Singapore

for contributions to heterogeneous and wireless networks

CJ. Reddy
Altair Engineering Inc.
Hampton, VA, USA

for leadership in simulation methods for antenna placement and co-site analysis

Jennifer Rexford
Princeton University
Princeton, NJ, USA

for contributions to network management and associated routing systems

Brian Rigling
Wright State University
Dayton, OH, USA

for contributions to synthetic aperture radar imaging

2018 Newly Elevated Fellows

Michael Riley
New York, NY, USA

for contributions to automatic speech recognition using Weighted Finite-State Transducers

Kim Roberts
Ciena Corporation
New York, NY, USA

for contributions to digital signal processing for coherent optical communication systems

Justin Romberg
Georgia Tech
Atlanta, GA, USA

for contributions to compressive sensing

Luca Roselli
University of Perugia
Perugia, Italy

for contributions to sustainable radio-frequency modules for wireless sensor networks

Tajana Rosing
University of California, San Diego
La Jolla, CA, USA

for contributions to power and reliability management of Systems-on-Chip

Eugeniusz Rosolowski
Wroclaw University of Technology
Wroclaw, Poland

for contributions to education in power system modeling and protection

Badrinath Roysam
University of Houston
Houston, TX, USA

for contributions to image processing algorithms for biological microscopy

2018 Newly Elevated Fellows

Karen Rudie
Queens University
Kingston, ON, Canada

for contributions to the supervisory control theory of discrete event systems

Kazuhiro Saitou
University of Michigan
Ann Arbor, MI, USA

for contributions in computational assembly and disassembly design of mechanical products

Seiji Samukawa
Tohoku University
Sendai, Japan

for contributions to damage-free plasma processing for nano-device manufacturing

Kevin Sangston
Georgia Tech Research Institute
Atlanta, GA, USA

for contributions to coherent detection of radar signals in clutter

Venkateswara Anand Sankaran
Ford Motor Company
Dearborn, MI, USA

for leadership in power electronics and energy storage for electric vehicles

Rahul Sarpeshkar
Thayer School of Engineering at Dartmouth
Hanover, NH, USA

for contributions to ultra low-power biomedical electronics

Ronan Sauleau
Universite de Rennes
Rennes, France

for contributions to lens and millimeter wave antennas

2018 Newly Elevated Fellows

Hiroshi Sawada
NTT Communication Science Laboratories
Nara, Japan

for contributions to blind source separation of speech and audio signals

Dieter Scherer
Palo Alto, CA, USA

for contributions to the design of oscillators and synthesized signal sources

Alex Schneider
Glen Ellyn, IL, USA

for contribution to transmission and generation failure modeling

Clint Schow
University of California Santa Barbara
Santa Barbara, CA, USA

for contributions to high bandwidth optical interconnects

Bjoern Schuller
University of Passau
Passau, Germany

for contributions to computer audition

Assaf Schuster
Technion – Israel Institute of Technology
Haifa, Israel

for contributions to cloud computing

Andrew Senior
London, UK

for contributions to pattern recognition in speech, computer vision, and biometrics

2018 Newly Elevated Fellows

Sanjit Seshia
University of California- Berkeley
Berkeley, CA, USA

for contributions to formal methods for inductive synthesis and algorithmic verification

Shihab Shamma
University of Maryland- College Park
College Park, MD, USA

for applications of signal processing to auditory neuroscience

Dinggang Shen
University of North Carolina-Chapel Hill
Chapel Hill, NC, USA

for contributions to medical image analysis

Riichiro Shirota
National Chao-Tung University
Hsinchu, Taiwan

for contributions to the development of NAND flash memory

Jiwu Shu
Tsinghua University
Beijing, China

for contributions to dependable, high-performance storage systems architecture

Hava Siegelmann
University of Massachusetts
Amherst, MA, USA

for contributions to neural computation

Lowell Smith
Ge Global Research
Niskayuna, NY, USA

for contributions to ultrasound transducer technology for medical imaging

2018 Newly Elevated Fellows

Gregory Snider
University of Notre Dame
Notre Dame, IN, USA

for contributions to single electron based computing technology

Yan Solihin
North Carolina State University
Raleigh, NC, USA

for contributions to shared cache hierarchies and secure processors

Min Song
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for leadership in supporting wireless networking and radio spectrum access

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for contributions to robotic manipulation and human-robot interaction

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for contributions to reinforcement learning, multiagent systems, and robotics

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for contributions to video understanding

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for contributions to laser nanofabrication and ultrafast spectroscopy

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for contributions to algorithms and technologies for energy management systems

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for contributions to micro-electromechanical systems for acoustic wave devices, physical sensors, and power generation

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for contributions to integrated circuits security and trust

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for contributions to hardware/software co-design for embedded systems

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for contributions to improving the safety and reliability of low voltage power systems

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for contributions to cooperative diversity and development of distributed turbo codes

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for contributions to recognition and retrieval of multimedia and biometric data

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for contributions to semi-supervised learning for signal processing

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for contributions to electromagnetic transient analysis and control of high-voltage high-power electronics conversion

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for contributions to robust identification and estimation of control systems

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