2023 NEWLY ELEVATED FELLOWS

Amir G Aghdam
Concordia University
Montreal QC Canada

for research leadership in distributed control of large-scale interconnected systems

Gail-Joon Ahn
Arizona State University
Tempe AZ USA

for development of applications of information and systems security

Jaleel Akhtar
Indian Institute of Technology Kanpur
Kanpur Uttar Pradesh India

for contributions in microwave planar sensors and nano-composites-based microwave absorbers

Bilal Akin
University of Texas at Dallas
Richardson TX USA

for contributions to control, diagnosis and condition monitoring of AC drives

Kemal Akkaya
Florida International University
Miami FL USA

for contributions to routing and topology management in wireless ad hoc and sensor networks

Walid Y Ali-Ahmad
Apple Inc.
San Carlos CA USA

for leadership in development of low-cost direct-conversion cellular RF systems
Nima Amjadi
Semnan University
Semnan Iran

for contributions to uncertainty modeling and forecasting for power systems

Jason H Anderson
University of Toronto
Toronto ON Canada

for contributions to high-level synthesis and low-power FPGAs

Francesco P Andriulli
Politecnico di Torino
Turin Italy

for contributions to computational electromagnetics

Stanley Atcitty
Sanida National Labs
Albuquerque NM USA

for leadership in advancing power conversion systems for grid energy storage applications

Vijayalakshmi Atluri
Rutgers University
Hamilton NJ USA

for contributions to security and privacy for data and workflow systems

Farhan A Baqai
Apple Inc.
Fremont CA USA

for contributions in leadership in digital camera image processing
2023 NEWLY ELEVATED FELLOWS

Joao Barros
Veniam
Porto Portugal

for contributions to physical-layer security and vehicular networking

Ertugrul Basar
Koc University
Istanbul Turkey

for contributions to physical-layer design for next-generation wireless networks

Alexandre M Bayen
University of California Berkeley
Berkeley CA USA

for contributions to distributed parameter systems control, with applications to mobile sensing and automotive systems

Geoffrey Beach
Massachusetts Institute of Technology
Cambridge MA USA

for contributions to the understanding of magnetoelectric effects, domain wall and skyrmion dynamics in nanostructures

Raymond G Beausoleil
Hewlett Packard Laboratories
Seattle WA USA

for contributions to classical and quantum communication and computation
Carolyn L Beck
University of Illinois
Urbana IL USA

for contributions to model reduction and the analysis of epidemic processes over networks

Hassan Bevrani
University of Kurdistan
Sanandaj Kordestan Iran

for contributions to microgrid control

Shekhar Bhansali
Florida International University
Miami FL USA

for contributions to portable real-time sensing devices for continuous monitoring

Zhaohong Bie
Xian Jiaotong University
Xian Shaanxi China

for contributions to power system reliability and resilience

Mark N Billinghurst
University of South Australia
Mawson Lakes South Australia Australia

for contributions to augmented and virtual reality

Keith A Bowman
Qualcomm Technologies, Inc.
Morrisville NC USA

for contributions to variation-tolerant adaptive processor designs
Michael S Braasch
GPSsoft
Guysville OH USA

for contributions to GPS multipath error characterization and mitigation

Maite Brandt-Pearce
University of Virginia
Charlottesville VA USA

for contributions to optical wireless and fiber communications

Alfred M Bruckstein
Technion International
Haifa Israel

for contributions to signal representation and swarm robotics

Concettina Buccella
University of L'Aquila
L'Aquila Italy

for contributions to the modeling of electric systems and the modulation of multilevel converters

Carlos A Busso
The University of Texas at Dallas
Richardson TX USA

for contributions to speech and multimodal affective signal processing and their technology applications

Patrizio Campisi
Universta' degli Studi Roma Tre
Roma Italy

for contributions to the development of biometrics
Srdjan Capkun
ETH Zurich
Zurich Switzerland

for contributions to wireless and systems security

Constantine Caramanis
University of Texas at Austin
Austin TX USA

for contributions to robust statistics and optimization in high dimensions

Norman Chang
ANSYS, Inc.
Fremont CA USA

for leadership in the physical-level sign-off of Electronic Design Automation for SoC/3DIC

Yuan-Hao Chang
Academia Sinica
Taipei Taiwan

for contributions to non-volatile memory reliability

Tsung-Hui Chang
Chinese University of Hong Kong
Shenzhen Guangdong China

for contributions to distributed optimization methods and their applications in signal processing and wireless communications

Paul C.-P. Chao
National Yang Ming Chiao Tung University
Hsinchu Taiwan

for contributions to optical bio-imaging and sensing technologies
Symeon Chatzinotas
University of Luxembourg
Luxembourg

for contributions to precoding technologies for multiple antennas

Pavel Cheben
National Research Council of Canada
Ottawa ON Canada

for contributions to silicon and metamaterial photonics

Haibo Chen
Shanghai Jiao Tong University
Shanghai China

for contributions to the design and implementation of distributed operating systems

Yonghong Chen
Midcontinent Independent System Operator (MISO)
Zionsville IN USA

for contributions in wholesale electricity market design and operations

Hong Chen
Tongji University
Shanghai China

for contributions to predictive control and applications in automotive systems

Hao Chen
University of California Davis
Davis CA USA

for contributions to the security of software and mobile systems
Guihai Chen
Nanjing University
Nanjing Jiangsu China
for contributions to large-scale distributed network architecture

Yixin Chen
Washington University
Saint Louis MO USA
for contributions to advancing the compactness and applicability of deep learning systems

Julian Z Cheng
The University of British Columbia
Kelowna BC Canada
for contributions to mathematical modeling of wireless systems and energy-efficient resource management of wireless networks

Shing C Cheung
Hong Kong China
for contributions to testing methodologies and bug management for software

Yuejie Chi
Carnegie Mellon University
Pittsburgh PA USA
for contributions to statistical signal processing with low-dimensional structures

Kyung Cheol Choi
Korea Advanced Institute of Science & Technology
Daejeon Korea
for contributions to emissive, flexible, and wearable displays
Jinho Choi
Deakin University
Burwood Victoria Australia

for contributions to multiple access signal processing systems

Frederic Chong
University of Chicago
Chicago IL USA

for contributions to the field of quantum computer architecture, compilation and optimization

Jong-Moon Chung
Yonsei University
Seoul Korea

for contributions in consumer wireless communications and networking systems technology

Song Ci
Tsinghua University
Beijing China

for contributions to reconfigurable electric vehicle batteries

Gari D. Clifford
Emory Healthcare
Atlanta GA USA

for contributions to machine-learning applications in cardiovascular time series

Margaret E Daube-Witherspoon
Fairfax Station VA USA

for Contributions to 3D Image Reconstruction in PET and Corrections for Physics Effects
2023 NEWLY ELEVATED FELLOWS

Ali Davoudi  
University of Texas at Arlington  
Arlington TX USA

for contributions to power-electronic dominant microgrid control

Chris L De Korte  
Radboud University Medical Center  
Zeist Netherlands

for the development of translation of intravascular elastography for ultrasound imaging

Andre M Dehon  
University of Pennsylvania  
Philadelphia PA USA

for contributions to reconfigurable computing and FPGAs

Paul Denholm  
National Renewable Energy Laboratory  
Golden CO USA

for contributions to energy storage in renewable-energy systems

Natasha Devroye  
University of Illinois Chicago  
Chicago IL USA

for fundamental contributions to the theoretical understanding of cognitive, two-way, and relay networks

Harpreet Dhillon  
Virginia Tech  
Blacksburg VA USA
2023 NEWLY ELEVATED FELLOWS

for contributions to heterogeneous cellular networks

Roberto Di Pietro
Hamad Bin Khalifa University
Doha Ar Rayyan Qatar

for contributions to the security of distributed systems

Dimos Dimarogonas
KTH Royal Institute of Technology
Stockholm Sweden

for contributions to distributed and hybrid control of multi-agent systems

Wei Ding
University of Massachusetts Boston
Lexington MA USA

for contributions to data mining and Big Data research in scientific domains

Aaron M Dollar
Yale University
New Haven CT USA

for contributions to dexterous grasping and manipulation

Alejandro D Domínguez-Garcia
University of Illinois Urbana Champaign
Urbana IL USA

for contributions to distributed control and uncertainty analysis of electrical energy systems

Daoyi Dong
Australian Defence Force Academy
Canberra Australian Capital Territory Australia
2023 NEWLY ELEVATED FELLOWS

for contributions to quantum systems control and reinforcement learning

Marvin M Doyley
University of Rochester
Rochester NY USA

for research of ultrasound elastography using inverse methods

Wenliang Du
Syracuse University
Syracuse NY USA

for contributions to cybersecurity education and research

Michael T Eismann
Air Force Research Laboratory
Beavercreek OH USA

for extraordinary technical leadership of hyperspectral remote sensing and infrared technology research for defense applications

Ayman S El-baz
University of Louisville
Louisville KY USA

for contributions to artificial intelligence in medicine

Tetsuo Endoh
Tohoku University
Sendai Miyagi Japan

for contributions to nonvolatile memory and spintronic logic

Mauro Ettorre
The French National Centre for Scientific Research
Rennes Cedex Bretagne France
2023 NEWLY ELEVATED FELLOWS

for contributions to large antenna arrays based on quasi-optical beam formers

John W Evans
Silver Spring MD USA

for contributions to electronics parts and assemblies for space systems

Dario Floreano
Swiss Federal Institute of Technology
Lausanne Switzerland

for contributions to bio-inspired drone development and evolutionary robotics

Fabrizio Forghieri
Cisco Photonics
Monza and Brianza Italy

for contributions to optical communications systems

Antonio Franchi
University of Twente
Enschede Netherlands

for contributions to modelling, design, and control for aerial and distributed robotic systems

Kingsley C Fregene
Lockheed Martin
Grand Prairie TX USA

for contributions to the autonomous control of unmanned vehicles

Robert D. Frisina
University of South Florida
Tampa FL USA

for distinguished contributions in neuroengineering and auditory sciences, especially age-related hearing loss causes and treatments
Fei Gao  
*University of Technology of Belfort-Montbéliard*  
*Belfort Franche-Comte France*  

*for contributions to real-time simulation and control techniques for fuel cells and power converters*  

Zhiwei Gao  
*Northumbria University*  
*Newcastle upon Tyne United Kingdom*  

*for contributions to real-time diagnosis and control of wind turbine systems*  

James Garrison  
*Purdue University*  
*West Lafayette IN USA*  

*for contributions to Earth remote sensing using signals of opportunity*  

Peter Gerstoft  
*University of California SanDiego*  
*San Diego CA USA*  

*for contributions to environmental signal processing and geo-acoustic array processing*  

Juan E Gilbert  
*University of Florida*  
*Gainesville FL USA*  

*for leadership in broadening participation in computing and contributions to accessible voting technologies*
2023 NEWLY ELEVATED FELLOWS

Roberto Gomez-Garcia
University of Alcala
Getafe Madrid Spain

for contributions to planar multi-function microwave filters

Hoay B Gooi
Nanyang Technological University
Singapore

for contributions to energy storage in microgrids

Harald JE Gossner
Intel Corporation Germany
Neubiberg Germany

for contributions to ESD design of advanced IC devices and high-speed systems

Julie Grollier
The French National Centre for Scientific Research
Palaiseau France

for contributions to the use of spintronic devices for neuromorphic computing

Yike Guo
Imperial College London
London United Kingdom

for contributions to data mining and its applications

Lei Guo
Beihang University
Beijing China

for contributions to composite anti-disturbance control systems
2023 NEWLY ELEVATED FELLOWS

Amar Gupta
Massachusetts Institute of Technology
West Newton MA USA

for contributions to banking transactions and healthcare practice

Karen Zita Haigh
BBN Technologies
Loretto MN USA

for contributions to closed-loop control of embedded systems

Donhee Ham
Harvard University
Cambridge MA USA

for contributions to semiconductor electronic interfaces with biological systems

Guangjie Han
Hohai University
Changzhou Jiangsu China

for contributions to Internet of Underwater Things and Industrial Internet of Things

Zenichiro Hara
Mitsubishi Electric Corporation
Nishisonogi-gun Nagasaki Japan

for contribution to Large-Scale Color Display systems and practical realization

Kensuke Harada
Osaka University
Toyonaka Japan

for contributions to whole-body manipulation for biped humanoid robots
2023 NEWLY ELEVATED FELLOWS

David G Hart
Raleigh NC USA

for contribution to the development of the smart grid

Chen He
NXP Semiconductors
Austin TX USA

for contributions to test of automotive microcontrollers and microprocessors

Richard Heller
University of South Florida
Tampa FL USA

for contributions to medical engineering for therapeutic applications

Masataka Higashiwaki
National Institute of Information & Communications Technology
Koganei Tokyo Japan

for contributions to gallium oxide electronics and millimeter-wave gallium nitride transistors

Marko P Hinkkanen
Aalto University
Aalto Finland

for contributions to sensorless control of industrial motor drives

Derek W Hoiem
University of Illinois Urbana-Champaign
Urbana IL USA

for contributions to computer vision
2023 NEWLY ELEVATED FELLOWS

Wonbin Hong
Pohang University of Science and Technology
Pohang Gyeongsangbuk-do Korea

for contributions to millimeter-wave mobile and base station antennas

Ahmad Hoorfar
Villanova University
Villanova PA USA

for contributions to sensing and imaging in stratified media and optimization in electromagnetics

Atsushi Hori
Tokyo Institute of Technology
Yokohama Kanagawa Japan

for contributions to the development and manufacture of low-power CMOS for digital consumer appliances

Bin Hu
Lanzhou University
Lanzhou Gansu China

for contributions to pervasive affective computing

He Huang
North Carolina State University
Raleigh NC USA

for contributions in control development in rehabilitation robotics

Muhammad A Imran
University of Glasgow
Glasgow United Kingdom

for contributions to energy efficient and self-organized wireless systems
2023 NEWLY ELEVATED FELLOWS

Ali Javey
University of California Berkeley
Berkeley CA USA

for contributions to 1D and 2D semiconductor transistors and wearable biochemical sensors

Uma S Jha
L3Harris Technologies
Indian Harbour Beach FL USA

for advancements in multi-standard and multi-function wireless communication system design

Shuiwang Ji
Texas A & M University
College Station TX USA

for contributions to machine learning and data mining

Hai Jiang
University of Alberta
Edmonton AB Canada

for contributions to cognitive radio networking and wireless performance analysis

Xiaoning Jiang
North Carolina State University
Raleigh NC USA

for contributions to ultrasound transducers for advanced sensing, imaging, and therapy
2023 NEWLY ELEVATED FELLOWS

Zhi Jin
Peking University
Beijing China

for significant contributions to knowledge-driven software development

James B Joshi
706A SIS Building
Pittsburgh PA USA

for contributions to access control and privacy

David B Kaber
University of Florida
Gainesville FL USA

for modeling and analysis of human-automation interaction and human-machine interface design in complex systems

Yong Kang
Huazhong University of Science and Technology
Wuhan Hubei China

for contributions to digital control of inverters and renewable power conversion systems

Magnus Karlsson
Chalmers University of Technology
Gothenburg Vastra Gotaland Sweden

for fundamental contributions to the study of nonlinear fiber propagation and advanced modulation formats

Ryan Kastner
San Diego CA USA

for contributions to the design and security of reconfigurable systems
Shin-Ichi Kawamura
National Institute of Advanced Industrial Science & Technology
Kodaira Tokyo Japan

for contributions to cost-effective and secure cryptography

Carl Kesselman
University of Southern California
Santa Monica CA USA

for foundational contributions to technologies and applications of global distributed computing

Muhammad M Khellah
Intel Corporation
Tigard OR USA

for contributions to design technology co-optimization (DTCO) of on-die dense memory and fine-grain power-management circuits

Chang-Su Kim
Korea University
Seoul Korea

for contributions to video communications and visual processing

Andras Kis
Swiss Federal Institute of Technology
Lausanne Switzerland

for contributions to the development of 2D materials and electronic devices
Mathias Klaui  
University of Mainz  
Mainz Germany  

for his contribution to the next generation magnetic solid-state memory, logic and sensor devices

Alois C Knoll  
Institut Fuer Informatik VI  
Garching Germany  

for contributions to Human-Robot Interaction and Neurorobotics

Tadayoshi Kohno  
University of Washington  
Seattle WA USA  

for contributions to cybersecurity

Keisuke Kojima  
Boston Quantum Photonics, LLC  
Weston MA USA  

for application of AI technologies to optimize the design of active and passive photonic devices

Jana Kosecka  
George Mason University  
Annandale VA USA  

for contributions to robust embodied vision systems and semantic modeling in robotics
2023 NEWLY ELEVATED FELLOWS

Marios Kountouris  
Eurecom  
Sophia-Antipolis France

for contributions to optimization and multi-antenna techniques in heterogeneous wireless networks

Bhaskar Krishnamachari  
University of Southern California  
Los Angeles CA USA

for contributions to algorithms and protocols for wireless networks

Torsten Kroeger  
Intrinsic  
Menlo Park CA USA

for contributions to real-time motion planning

Richard C Lanza  
Massachusetts Institute of Technology  
Brookline MA USA

for developing novel imagers and radiation detectors applied to medicine and security problems

Cecilia Laschi  
National University of Singapore  
Singapore

for contributions to soft robotics

Javad Lavaei  
University of California Berkeley  
El Cerrito CA USA

for contributions to nonlinear optimization in power systems
Bernard C Lesieutre
University of Wisconsin-Madison
Madison WI USA

for contributions to electric power system dynamic modeling, simulation and power engineering education

Laura H Lewis
Northeastern University
Boston MA USA

for contributions to the design of magneto-functional materials

Zong-Ming Li
University of Arizona
Tucson AZ USA

for contributions to carpal tunnel biomechanics and neuromuscular hand motor control

Minglu Li
Jiao Tong University
Shanghai China

for contributions to wireless sensor and vehicular networks

Jonathan Li
University of Waterloo
Waterloo ON Canada

for contribution to point cloud analytics in LiDAR remote sensing
Zhengguo Li
Institute for Infocomm Research
Singapore

for contributions to video encoding and streaming optimization and edge-preserving filters

Chen Li
University of California Irvine
Irvine CA USA

for contributions to supporting similarity queries in databases and data-intensive computing

Guann-Pyng Li
University of California Irvine
Irvine CA USA

for contributions to the bipolar device, circuit and technology in silicon and compound semiconductors

Guoliang Li
Tsinghua University
Beijing China

for contributions to human-in-the-loop data management and database systems

Jia Li
Stanford University
Palo Alto CA USA

for leadership in large-scale AI
2023 NEWLY ELEVATED FELLOWS

Sung Kyu Lim
Georgia Institute of Technology
Atlanta GA USA

for contributions to electronic design automation and tradeoff for 3-dimensional integrated circuits

Christina M Lim
The University of Melbourne
Melbourne Victoria Australia

for contributions in hybrid fiber-wireless communications technology

Haibin Ling
Stony Brook University
Stony Brook NY USA

for contributions to computer vision for visual tracking and matching

Zhigang Liu
Southwest Jiaotong University
Chengdu Sichuan China

for contributions to fault detection and protection in high-speed railway power systems

Wei Liu
Tencent
Shenzhen Guangdong China

for contributions to large-scale machine-learning and multimedia intelligence

Ce Liu
Microsoft Corporation
Belmont MA USA

for contributions to computer vision and computational photography
2023 NEWLY ELEVATED FELLOWS

Xiaoming Liu
Michigan State University
Okemos MI USA

for contributions to facial image analysis and recognition

Andrew Lord
BT Group
Colchester Essex United Kingdom

for contributions to optical networking

Ashraf W Lotfi
Englishtown NJ USA

for pioneer contributions in developing and commercializing high-density 3-dimensional integrated power electronics modules

Karon Maclean
University of British Columbia
Vancouver BC Canada

for contributions to the design of haptic communication

Mohammad Maddah-ali
Stanford University
Cupertino CA USA

for contributions to information theory for interference management, coded caching and computing

Pierluigi Mancarella
The University of Melbourne
Melbourne Australia

for contribution to power system resilience and multi-energy systems
2023 NEWLY ELEVATED FELLOWS

Rajit Manohar  
Yale University  
New Haven CT USA

for contributions to the design and implementation of asynchronous circuits and systems

Chengxiong Mao  
Huazhong University of Science and Technology  
Wuhan Hubei China

for leadership in active control of power systems and its industrial applications

Anthony F Martone  
Army Research Laboratory  
Adelphi MD USA

for contributions to the development and validation of cognitive radar systems

Takashi Matsuoka  
Tohoku University  
Sendai Miyagi Japan

for contributions to laser diodes for optical communications and nitride semiconductors for light-emitting devices

Michail Matthaiou  
Queen's University Belfast  
Belfast United Kingdom

for contributions to fundamental research and practical implementation of massive MIMO
Gerald Matz
TU Wien
Wien Austria

for contributions to signal processing for communications in nonstationary environments

Arianna Menciassi
Scuola Superiore Sant'Anna
Pontedera Italy

for contributions to the development of robots for minimally invasive surgery

Florian E Metze
Carnegie Mellon University
Larchmont NY USA

for contributions to end-to-end training of speech recognition systems

Chunyan Miao
Nanyang Technological University
Singapore

for contributions to multimodal signal processing and AI technologies for aging-at-home and population health

James B Michael
Naval Postgraduate School
Pebble Beach CA USA

for contributions to the protection of critical infrastructure

Thomas Mikolajick
NaMLab
Dresden Sachsen Germany

for contributions to nonvolatile memory
Linda S Milor  
Georgia Institute of Technology  
Atlanta GA USA  
for contributions to testing of analog circuits and bridging the design-manufacturing gap for integrated circuits

Richard P Mirin  
National Institute of Standards and Technology  
Boulder CO USA  
for contributions to quantum photonic devices

Mohammad Modarres  
University of Maryland  
College Park MD USA  
for contributions to probabilistic risk assessment in nuclear safety

Marta Molinas  
Norwegian University of Science and Technology  
Trondheim Norway  
for contributions to modeling and stability of power electronics

Gabriele Moser  
University of Genoa  
Genoa Italy  
for contributions to pattern recognition in remote sensing

Ralf Reiner Mueller  
Universitaet Erlangen-Nuernberg  
Erlangen Germany  
for contributions to the design and analysis of large multi-antenna and multiple-access systems
2023 NEWLY ELEVATED FELLOWS

Gabriel Miro Muntean  
Dublin City University  
Dublin City Ireland  

for contributions in multimedia quality in heterogeneous network environments

Tamara Munzner  
University of British Columbia  
Vancouver BC Canada  

for contributions to principles, processes, and design for visualization

Chandra R Murthy  
Indian Institute of Science  
Bangalore India  

for contributions to Bayesian sparse signal recovery and energy harvesting communications

Kashem M Muttaqi  
University of Wollongong  
Wollongong New South Wales Australia  

for contribution to modeling and control of renewable and distributed energy resources

Kazuhiro Nakadai  
Tokyo Institute of Technology  
Meguro-ku Tokyo Japan  

for contributions to robot audition and computational auditory scene analysis
Yoshiaki Nakano
The University of Tokyo
Bunkyo-ku Tokyo Japan

for contributions to semiconductor integrated photonic devices and circuits

Premkumar Natarajan
University of Southern California
Rolling Hills Estates CA USA

for contributions to conversational AI systems, spoken language translation, and home voice-assistant systems

Suman Nath
Microsoft Research
Redmond WA USA

for contributions to the dynamic analysis framework for mobile and cloud systems

Michael Negnevitsky
University of Tasmania
Hobart Tasmania Australia

for contributions to application of AI techniques for control of isolated hybrid power systems

Tze Sing Eugene Ng
Rice University
Houston TX USA

for contributions to circuit-switched innovations in data center network and scalable methods for Internet delay estimation

Douglas C Noll
University of Michigan
Ann Arbor MI USA

for contributions to functional magnetic resonance imaging of the brain
Hideki Ochiai  
Yokohama National University  
Yokohama Kanagawa Japan  

for contributions to power and spectral efficient wireless communication

Kenichi Okada  
Tokyo Institute of Technology  
Tokyo Japan  

for contributions to millimeter-wave communication circuits design

Masaaki Okubo  
Osaka Metropolitan University  
Sakai Osaka Japan  

for contributions to non-thermal plasma applications for pollution control

Boon S Ooi  
King Abdullah University of Science and Technology  
Thurwal Makkah Saudi Arabia  

for contributions to broadband light emitters and visible light communications

Omer Oralkan  
North Carolina State University  
Raleigh NC USA  

for contributions to micromachined ultrasonic transducers and integrated microsystems development, for imaging, therapy, and sensing
2023 NEWLY ELEVATED FELLOWS

Christian Ott
German Aerospace Center
Wessling Bayern Germany

for contributions to torque-control theory using passive joint elasticity and the whole-body control of humanoids

Ye Ouyang
AsiaInfo Technologies
Warren NJ USA

for leadership in network intelligence and self-organizing cellular networks

Jianping Pan
University of Victoria
Victoria BC Canada

for contributions to topology control of wireless networks

Shilong Pan
Nanjing University
Nanjing Jiangsu China

for contributions to high-performance microwave-photonic imaging radar

Srinivasan Parthasarathy
Ohio State University
Dublin OH USA

for contributions to high performance data mining and network analysis

John M Pauly
Stanford University
Stanford CA USA

for contributions to data acquisition and image reconstruction methods for magnetic resonance imaging
Anna Peacock  
*University of Southampton*  
*Southampton Hampshire United Kingdom*

for contributions to *nonlinear fiber optics and materials*

Hanspeter Pfister  
*Harvard University*  
*Cambridge MA USA*

for contributions to *computer vision applications*

Khanh Dai Pham  
*Air Force Research Laboratory*  
*Albuquerque NM USA*

for leadership in *military aerospace decision support systems and strategic small business innovation*

Vir V Phoha  
*Syracuse University*  
*Syracuse NY USA*

for development of *attack-averse active authentication using behavioral patterns*

Britton L. T. Plourde  
*Syracuse University*  
*Syracuse NY USA*

for contributions to *integration of qubits into future practical quantum computing systems*

Michael O Polley  
*Garland TX USA*

for leadership in *multimedia chipset architectures and mobile camera technologies*
2023 NEWLY ELEVATED FELLOWS

Gabriel Popescu
University of Illinois Urbana-Champaign
Urbana IL USA

for contributions to phase imaging in biomedical applications

Radislav A. Potyrailo
GE Global Research
Niskayuna NY USA

for contributions to sensor technologies for gas differentiation, interference rejection, and drift elimination

Daniel Povey
Xiaomi Inc.
Beijing China

for contributions to acoustic modeling for speech recognition

James C Preisig
JPAnalytics, LLC
East Falmouth MA USA

for contributions to underwater acoustic communication channel modeling, signal processing and performance prediction

Yihong Qi
General Test Systems
Waterloo ON Canada

for contributions to over-the-air testing of massive MIMO systems and development of over-the-air measurement systems
Oscar Quevedo-Teruel  
*KTH Royal Institute of Technology*  
Stockholm Sweden  

*for contributions to glide symmetry-based metasurfaces and lens antennas*  

Moinuddin K Qureshi  
*Georgia Institute of Technology*  
Atlanta GA USA  

*for contributions to scalable memory systems*  

Munaf T Rahimo  
*MTAL GmbH*  
Gansbrunnen Solothurn Switzerland  

*for contributions to high-voltage insulated gate bipolar transistors for grid applications*  

Rajesh Rao  
*University of Washington*  
Seattle WA USA  

*for contributions to brain-computer interfaces and computational modeling*  

Sherief M Reda  
*Brown University*  
Providence RI USA  

*for contributions to energy-efficient and approximate computing*  

Christian Rehtanz  
*Technische Universitat Dortmund*  
Dortmund Germany  

*for contributions to wide area monitoring, protection and control systems for electrical power grids*
Woogeun Rhee  
Tsinghua University  
Beijing China  

for contributions to phase-locked circuits and systems

Paolo Rocca  
ELEDIA Research Center  
Trento Italy  

for contributions to clustered and time-modulated antenna arrays

Miguel Raul D Rodrigues  
University College London  
London United Kingdom  

for contributions to multimodal data processing and foundations of reliable and secure communications

Juan J Rodriguez-Andina  
University of Vigo  
Vigo Spain  

for contributions to embedded systems in industrial electronics

Toshiaki Rokunohe  
Hitachi Ltd.  
Hitachi-shi Ibaraki Japan  

for contributions to eco-friendly compact and reliable high-voltage equipment

Sei-Hyung Ryu  
Wolfspeed, a Cree Company  
Cary NC USA  

for contributions to silicon carbide power device technology
2023 NEWLY ELEVATED FELLOWS

Henrik Sandberg
KTH Royal Institute of Technology
Stockholm Sweden

for contributions to model reduction and secure control systems

Eunice E Santos
University of Illinois Urbana-Champaign
Champaign IL USA

for leadership in computational social networks

Jose A Santos-Victor
Instituto Superior Tecnico
Lisboa Portugal

for contributions to biologically-inspired cognitive vision and humanoid robotic systems

Jean-Luc Schanen
University Grenoble Alps
Grenoble France

for contribution to Electromagnetic Compatibility in Power Electronics

Laurent Schmalen
Karlsruher Institut fur Technologie
Karlsruhe Baden-Wuerttemberg Germany

for contributions to the design of error correction and modulation techniques for optical networks

Stephanie Schuckers
Clarkson University
Potsdam NY USA

for contributions in biometric recognition systems
2023 NEWLY ELEVATED FELLOWS

Jack J Schuss
Raytheon Company
Newton Centre MA USA

for leadership in the development of antennas for satellite communications and radars

Abu Sebastian
Cloud and AI Systems Research
Rueschlikon Zurich Switzerland

for contributions to in-memory computing for scientific applications

Gonzalo Seco-granados
Universitat Autonoma de Barcelona
Bellaterra Catalunya Spain

for contributions to signal processing for global navigation satellite systems, and 5G localization systems

Howard G Sedding
Iris Power
Elgin ON Canada

for contributions to practical partial discharge testing of electrical equipment

Tomonobu Senju
University of the Ryukyus
Nakagami Okinawa Japan

for contributions to wind-power generator automation and control
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Wanxing Sheng
China Electric Power Research Institute
Beijing China

for contributions to safe operation and coordinated control of smart power distribution systems

Krishna V Shenoy
Stanford University
Stanford CA USA

for contributions to cortical control of movement and brain-computer interfaces

Ling Shi
Hong Kong University of Science and Technology
Kowloon Hong Kong

for contributions to cyber-physical system optimization and security

Ping Shum
Southern Univ of Science and Technology
Shenzhen Guangdong China

for pioneering contributions in optical fiber-based technologies and their diverse applications

Uri Shumlak
University of Washington
Seattle WA USA

for research of sheared flow stabilization of the Z pinch for fusion energy

Anthony Man-Cho So
The Chinese University of Hong Kong
Shatin Hong Kong

for contributions to optimization in signal processing and communications
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Houbing Song
Embry-Riddle Aeronautical University
Daytona Beach FL USA

for contributions to big data analytics and integration of AI with Internet of Things

Vesna Sossi
University of British Columbia
Vancouver BC Canada

for contributions to quantitative and translational brain PET imaging

Pavlos P Sotiriadis
Institute of Communication & Computer Systems
Athens Greece

for contributions to advanced frequency synthesis and high-speed data buses

Yilmaz Sozer
University of Akron
Akron OH USA

for contributions to the design and control of electric machine drives

Ankur Srivastava
University of Maryland
College Park MD USA

for contributions to chip hardware security

Konstantin Staschus
Guidehouse
Berlin Germany

for the institutionalization of Europe-wide joint transmission grid planning
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Thomas Stockhammer
Qualcomm CDMA Technologies
Bergen Bayern Germany

for contributions to media delivery and video streaming standards

Dmitri Strukov
University of California Santa Barbara
Santa Barbara CA USA

for contributions to neuromorphic and alternative computing systems based on emerging memory devices

Zhendong Su
ETH Zurich
Zurich Switzerland

for contributions to automated software testing and analysis

Changho Suh
Korea Advanced Institute of Science & Technology
Daejeon Korea

for contributions to interference management and distributed storage codes

Richard R Syms
Imperial College London
London United Kingdom

for contributions to mass spectrometers based on microelectromechanical system technology

Ying Tan
University of Melbourne
Parkville Victoria Australia

for contributions to rehabilitation robotics
Lixin Tang  
Northeastern University  
Shenyang Liaoning China  
for contributions to computational intelligence and applications in manufacturing

Ke Tang  
SUSTech  
Shenzhen Guangdong China  
for contributions to scalable evolutionary algorithms for large-scale optimization

Andrew A Tay  
Singapore University of Technology and Design  
Singapore Central Singapore  
for contributions to hygro-thermo-mechanical failure prevention of semiconductor packaging

Abdelhamid Tayebi  
Lakehead University  
Thunder Bay ON Canada  
for contributions to the control of unmanned aerial vehicles and learning-based control for robot manipulators

Smail Tedjini  
University Grenoble Alps  
Valence France  
for contributions to the development of harmonic backscattering RFID systems and chipless tag solutions
Stefan Tenbohlen  
*University of Stuttgart*  
Stuttgart Germany  

*for contributions to leadership in power transformer reliability*  

Olav Tirkkonen  
*Aalto University*  
Aalto Finland  

*for contributions in the theory and practice of wireless communications technology and standards*  

Robert L Tjoelker  
*NASA*  
Everson WA USA  

*for contributions advancing trapped ion microwave clocks and deep-space frequency and timing systems*  

Kin F Tong  
*University College London*  
London United Kingdom  

*for contributions to wideband and circularly polarized printed antenna designs*  

Massimo Tornatore  
*Politecnico di Milano*  
Milano Italy  

*for contributions to machine-learning and optimization algorithms for resource management in optical networks*  

Giovanni A Toso  
*European Space Agency*  
Noordwijk Zuid-Holland Netherlands  

*for contributions to multibeam antenna developments for satellite applications*
Miguel Urteaga
Teledyne Scientific & Imaging
Thousand Oaks CA USA

for contributions to terahertz heterojunction bipolar transistor integrated circuit technology

Subramanian V Vadari
Modern Grid Solutions
Redmond WA USA

for leadership in electric power system planning and markets

Piet Van Mieghem
Delft University of Technology
Delft Netherlands

for contributions to network modeling and quality of service-based routing

Sriram R Vangal
Intel Corporation
Portland OR USA

for contributions to network-on-chip architectures

Marian Verhelst
KULeuven
Heverlee Vlaams-Brabant Belgium

for contributions to energy-efficient near-sensor processing and embedded Machine Learning Processors
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Pierre J Verlinden
Amrock Pty Ltd
Mclaren Vale South Australia Australia

for leadership in high-performance silicon solar cell and photovoltaics technology and commercialization

Dmitri Vinnikov
Tallinn University of Technology
Tallinn Estonia

for contributions to impedance-source converter design

Birgit Vogel-heuser
Technische Universitaet Muenchen
Garching bel Muchen Bayern Germany

for contributions to evolvable, adaptable field-level automation architectures for manufacturing systems and logistics

Jianping Wang
City University of Hong Kong
Kowloon Hong Kong

for contributions to resiliency of complex systems

Xiongfei Wang
Aalborg University
Aalborg Nordjylland Denmark

for contributions to power-electronic-based power systems

Qian Wang
Wuhan University
Wuhan Hubei China

for contributions to secure cloud data storage and wireless system security
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Hua Wang
Georgia Institute of Technology
Atlanta GA USA

for contributions to high-efficiency microwave and millimeter-wave power amplifiers

Hong Wang
Oak Ridge National Laboratory
Farragut TN USA

for contributions to learning control and diagnosis for complex dynamical systems

Xin Wang
Fudan University
Shanghai China

for outstanding contributions to wireless localization and dynamic resource allocation in broadband mobile networks

Xiaoyu Wang
Sammamish WA USA

for contributions to video analysis technologies for embedded systems

Yinhai Wang
University of Washington
Seattle WA USA

for contributions to traffic sensing, transportation data science, and smart infrastructure systems

Jue Wang
Woodinville WA USA

for contributions to quality of image and video matting processing
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Wei Wang
University of California Los Angeles
Los Angeles CA USA

for contributions to data mining

Zbigniew Roman Wasilewski
University of Waterloo
Waterloo ON Canada

for contributions to molecular beam epitaxy growth technology and photonic devices

Shinji Watanabe
Carnegie Mellon University
Pittsburgh PA USA

for contributions to speech recognition technology

Keith A Wear
Food and Drug Administration
Silver Spring MD USA

for applying acoustic pressure measurements to improve the safety and effectiveness of medical ultrasound

Stefan A Werner
Norwegian University of Science and Technology
Trondheim Norway

for contributions to in-band full-duplex wireless communication systems and selective data-reuse online learning
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Mark M Wilde
Cornell University
Ithaca NY USA

for contributions to the relative-entropy framework and theorems for quantum communications

Jason D Williams
Apple Inc.
Seattle WA USA

for contributions to the theory and practice of machine-learning-based spoken dialog systems

Brendt Wohlberg
Los Alamos National Laboratory
Los Alamos NM USA

for contributions to computational imaging and sparse representations

Tilman Wolf
University of Massachusetts Amherst
Amherst MA USA

for contributions to design of network processors and in-network processing services

Daniel Worledge
IBM Research
San Jose CA USA

for contributions to magneto-resistive random access memories
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Yongwei Wu
Tsinghua University
Beijing China

for contributions to high-performance data storage and data-intensive computing systems

Kaishun Wu
Shenzhen University
Shenzhen Guangdong China

for contributions to wireless sensing and ubiquitous computing

Dongrui Wu
Huazhong University of Science and Technology
Wuhan Hubei China

for contributions to fuzzy logic and its applications to controls and decision-making

Qiangfei Xia
University of Massachusetts Amherst
Winchester MA USA

for contributions to resistive memory arrays and devices for in-memory computing

Xiaokui Xiao
National University of Singapore
Singapore

for contributions to database privacy and graph data management

Lijun Xu
Beihang University
Beijing China

for contributions to multiphase flow measurement and combustion process monitoring
Mingzhou Xu  
Honeywell International Inc.  
Tucson AZ USA

for contributions to power systems of all-electric aircraft

Jingling Xue  
University of New South Wales  
Sydney New South Wales Australia

for contributions to compiler optimization and program analysis

Jun Yang  
Loughborough University  
Leicestershire United Kingdom

for contributions to disturbance observer-based control

Ping Yang  
Texas A & M University  
College Station TX USA

for seminal contributions to radiative transfer and remote sensing of ice clouds and dust aerosols

Kun Yang  
University of Essex  
Colchester Essex United Kingdom

for contributions to resource management in wireless networks

Danfeng Yao  
Virginia Tech  
Blacksburg VA USA

for contributions to enterprise data security and high-precision vulnerability screening
Shen Yin  
*Norwegian University of Science and Technology*  
*Trondheim Trondelag Norway*  

*for contributions to fault diagnosis and fault-tolerant control of complex systems*

Fung Yu Young  
*Chinese University of Hong Kong*  
*New Territories Hong Kong*  

*for contributions to electronic design automation in VLSI physical design*

Shucheng Yu  
*Stevens Institute of Technology*  
*Hoboken NJ USA*  

*for contributions to information and network security*

Quan Yu  
*Peng Cheng Laboratory*  
*Nanjing Jiangsu China*  

*for technical leadership in radio and space-air-ground integrated network technologies*

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*Sydney New South Wales Australia*  

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IBM TJ Watson Research Center  
Yorktown Heights NY USA

*for contributions to CMOS-compatible biosensors and high permittivity field effect transistor reliability models*

Eiichi Zaima  
Central Research Institute of Electrical Power Industry  
Nakano Tokyo Japan

*for leadership in ultra-high voltage transmission technology and international standards*

Haijun Zhang  
University of Science and Technology Beijing  
Beijing China

*for contributions to radio-resource management in heterogeneous networks*

YuMing Zhang  
University of Kentucky  
Lexington KY USA

*for contributions to robotized welding manufacturing through machine-vision-based intelligence*

Chenghui Zhang  
Shandong University  
Jinan Shandong China

*for contributions to control of renewable energy systems*
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Li Zhang
The Chinese University of Hong Kong
Shatin Hong Kong China

for contributions to micro-/nanorobot swarms and platforms for translational biomedicine

Zhiru Zhang
Cornell University
Ithaca NY USA

for contributions to field-programmable gate array high-level synthesis and accelerator design

Youmin Zhang
Concordia University
Montreal QC Canada

for contributions to fault diagnosis and fault-tolerant control systems

Yao Zhao
Beijing Jiaotong University
Beijing China

for contributions to image/video analysis and multimedia content protection

Zibin Zheng
Sun Yat-sen University
Guangzhou Guangdong China

for contributions to blockchain reliability engineering

Xiangyun Zhou
Australian National University
Canberra Australia

for contributions to physical layer security and wireless-powered communications
Gang Zhou  
College of William and Mary  
Williamsburg VA USA

for contributions to sensor networks and low-power wireless networks

Yongxing Zhou  
Beijing China

for contributions to MIMO Beamforming codebooks and smart spectrum access in wireless networks

Haojin Zhu  
Shanghai Jiao Tong University  
Shanghai China

for contributions to Vehicular Networks and Internet-of-Things Security

Jun Zhu  
Tsinghua University  
Beijing China

for contributions to machine learning and its applications

Zuqing Zhu  
University of Science and Technology  
Hefei Anhui China

for contributions to elastic optical networking and network virtualization

Xingquan Zhu  
Florida Atlantic University  
Boca Raton FL USA

for contributions to data mining for big data analytics and network representation learning
Chengqing Zong
National Laboratory of Pattern Recognition Beijing China

for contributions to machine translation and natural language processing