

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

2023 NEWLY ELEVATED FELLOWS

*Nima Amjady
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
Sandia 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 Beusoleil
Hewlett Packard Laboratories
Seattle WA USA*

for contributions to classical and quantum communication and computation

2023 NEWLY ELEVATED FELLOWS

*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 Billingham
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

2023 NEWLY ELEVATED FELLOWS

*Michael S Braasch
GPSofT
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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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 Dominguez-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 Ettore
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
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

2023 NEWLY ELEVATED FELLOWS

Fei Gao
University of Technology of Belfort-Montbeliard
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
RIKEN Center for Computational Science
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

2023 NEWLY ELEVATED FELLOWS

*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 co-optimization 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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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 für 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 Autònoma 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 Senjyu
University of the Ryukyus
Nakagami Okinawa Japan*

for contributions to wind-power generator automation and control

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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 bei Muenchen 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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

2023 NEWLY ELEVATED FELLOWS

*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

*Shui Yu
University of Technology Sydney
Sydney New South Wales Australia*

for contributions to cyber security and privacy

2023 NEWLY ELEVATED FELLOWS

Sufi Zafar
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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

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

2023 NEWLY ELEVATED FELLOWS

*Chengqing Zong
National Laboratory of Pattern
Recognition Beijing China*

for contributions to machine translation and natural language processing