

2022 NEWLY ELEVATED FELLOWS

Dr. Amin Abbosh
Brisbane, Queensland Australia

for contributions to electromagnetic medical imaging

Dr. Daniel Abramovitch
Palo Alto, CA USA

for contributions to the development of algorithms for control of mechatronic systems

Prof. Behcet Acikmese
Seattle, WA USA

for contributions to optimization-based nonlinear control and to planetary landing systems

Bo Ai
Beijing, China

for contributions to channel modeling and wireless communications in high-speed railways

Prof. Maruthi Akella
Austin, TX USA

for contributions to spacecraft control systems

Prof. J. Marcos Alonso
Gijon, Asturias, Spain

for contributions to power electronics in lighting applications

Prof. Ghassan Alregib
Atlanta, GA USA

for contributions to perception-based and context-based visual signal processing

Prof. Lay-Kee Ang
Singapore, Singapore

for contributions to electron emission and space charge effects in nanodiode and quantum materials

Murali Annavaram
Los Angeles, CA USA

for contributions to heterogeneous architectures for energy-efficient computing systems

Prof. Grigoris Antoniou
Huddersfield, United Kingdom

for contributions to knowledge representation within artificial intelligence and to the semantic web

Shoko Araki
Kyoto, Japan

for contributions to blind source separation of noisy and reverberant speech signals

Prof. Harry Asada
Cambridge, MA USA

for the design, modeling, and control of direct drive robotic arms

Kemal Aygun
Tempe, AZ USA

for contributions to high-bandwidth and high-speed packaging and socket technologies

Rajapandian Ayyanar
Tempe, AZ USA

for contributions to power conversion and grid integration of renewable resources

Arturo Azcorra
Leganes, Madrid, Spain

for leadership in developing the midhaul and core of 5G networks

Toshihiko Baba
Yokohama, Japan

for contributions to photonic nanostructure waveguides and emitters

Dr. Michiel Bacchiani
Tokyo, Japan

for leadership in commercial automatic speech recognition systems

Prof. Thomas Baeck
Waltrop, Germany

for contributions in synthesizing evolutionary computation

Prof. Ruth Bahar
Providence, RI USA

for contributions to modeling and design of power-aware and noise-tolerant nanoscale computing systems

Prof. Dominique Baillargeat
Limoges, Limousin, France

for contributions to developments of nanomaterials for RF packaging and sensors

Dr. Anirban Bandyopadhyay
Pleasanton, CA USA

for leadership in silicon RF-SOI technologies

Sujata Banerjee
Palo Alto, CA USA

for leadership in programmable and energy efficient networks

Prof. Suman Banerjee
Madison, WI USA

for development of tools to improve performance and usability of wireless systems

Prof. Seth Bank
Austin, TX USA

for contributions to the growth of optoelectronic materials by molecular beam epitaxy

Cullen Bash
Los Gatos, CA USA

for contributions to improving the sustainability and energy efficiency of data center infrastructure

Prof. Stephen Beeby
Southampton, Hampshire, United Kingdom

for contributions to energy harvesting and its application in e-textiles

Boualem Benatallah
Kensington, New South Wales, Australia

for contributions to declarative service composition and web services middleware

Suparna Bhattacharya
Bangalore, Karnataka, India

for contributions to Linux kernel for enterprise and advanced data processing systems

Dr. Subhashish Bhattacharya
Raleigh, NC USA

for contributions to power conversion systems and active power filters

Prof. Tianshu Bi
Beijing, China

for contributions to synchrophasor technology and protective relay applications

Dr. Stephan Biller
Chapel Hill, NC USA

for leadership in the applications of Internet of Things and Artificial Intelligence in manufacturing industry

Prof. Emil Bjornson
Kista, Stockholm, Sweden

for contributions to multi-antenna and multi-cell wireless communications

Dr. M Brian Blake
Washington, DC USA

for contributions to web-based software engineering

Dr. Laure Blanc-feraud
Sophia Antipolis, Cedex, France

for contributions to inverse problems in image processing

Dr. Petros Boufounos
Winchester, MA USA

for contributions to compressed sensing

James Buckwalter
Santa Barbara, CA USA

for contributions to high-efficiency millimeter-wave power amplifiers and optical transceivers in SOI technologies

Dr. Humberto Bustince
Pamplona, Navarra, Spain

for contributions to information fusion under uncertainty

Prof. Darwin Caldwell
Bury, United Kingdom

for contributions to Actuator Technology, Legged Systems and Soft Human Friendly Robotic

Prof. Erik Cambria
Singapore, Singapore

for contributions to affective computing and sentiment analysis

Prof. Ming Cao
Groningen, Netherlands

for contributions to multi-agent control systems for sensor, robotic and social networks

Anita Carleton
Sewickley, PA USA

for leadership in the advancement of software measurement and practices

Prof. Joao Paulo Catalao
Tortosendo, Portugal

for contributions to power system operations and demand response

Dr. Andrea Cavallini
Bologna, Italy

for contributions to the development of electrical insulation diagnostics through partial discharge measurements

Dr. Nacer Chahat
Altadena, CA USA

for development of CubeSat and Spacecraft antennas for inter-planetary missions

Prof. Samarjit Chakraborty
Chapel Hill, NC USA

for contributions to system-level timing analysis of cyber-physical systems

Prof. Anthony Chan Carusone
Toronto, ON Canada

for contributions to integrated circuits for digital communication

Prof. Nitesh Chawla
Notre Dame, IN USA

for contributions to learning from imbalanced data and heterogeneous graphs

Prof. Wenquan Che
Guangzhou, Guangdong, China

for contributions to planar transmission line structures for microwave passive components

Dr. Jinjun Chen
Melbourne, Victoria, Australia

for contributions to scalable architecture for cloud data storage and processing

Prof. Minghua Chen
Kowloon Tong, Hong Kong

for contributions to delay-critical networked systems

Dr. Baoxing Chen
Westford, MA USA

for contributions to integrated signal-power isolation and integrated magnetics

Dr. Zhihong Chen
West Lafayette, IN USA

for contributions to the understanding and applications of low-dimensional nanomaterials

Prof. Hongsheng Chen
Hangzhou, Zhejiang, China

for contributions to electromagnetic metamaterial and invisibility cloak

Prof. Xinkai Chen
Saitama, Saitama, Japan

for contributions to nonlinear adaptive control and nonlinear observer design for mechatronic systems

Prof. Xiang Cheng
Beijing, China

for contributions to vehicular communication channel modeling and system design

Prof. Alessandro Chiuso
Padova, Padua, Italy

for contributions to subspace and Bayesian identification methods

Dr. Thomas Cho
Seongnam-Si, Gyeonggi-do, South Korea

for leadership and contributions in CMOS RFIC design and commercialization of wireless mobile systems

Prof. Ki Chon
Storrs, CT USA

for the development of novel algorithms to detect atrial fibrillation from smart wearable devices

Chee-Yee Chong
Los Altos, CA USA

for contributions to information fusion methods for multi-sensor tracking

Dr. Thomas Clancy
Arlington, VA USA

for leadership in security and wireless communications

Prof. Holger Claussen
Maynooth, Kildare, Ireland

for contributions to small cell wireless network technology

Walter Cleaveland
Arlington, VA USA

for contributions to verification tools for finite-state and cyber-physical systems

Prof. Bruno Clerckx
London, United Kingdom

for contributions to multi-antenna communications and wireless power transmission

Todd Coleman
La Jolla, CA USA

for contributions to biomedical signal processing and leadership in neuro-engineering

Sinem Coleri
Sariyer, Istanbul, Turkey

for contributions to wireless technologies and sensor networks

Prof. Andrea Conti
Ferrara, Italy

for contributions to wireless communication and localization systems

Mauro Conti
Montecastrilli, Terni, Italy

for contributions to communications network security

Prof. Alessandra Costanzo
Bologna, Italy

for contributions to nonlinear electromagnetic co-design of RF and microwave circuits

Linglong Dai
Beijing, China

for contributions to massive MIMO

Prof. Luca Daniel
Cambridge, MA USA

for contributions to modeling and simulation of electronic systems

Paul Dayton
Chapel Hill, NC USA

for contributions to contrast agents and contrast-enhanced ultrasound in medical diagnostics and therapeutics

Dr. Riccardo Degaudenzi
Den Haag, Zuid-Holland, Netherlands

for leadership in digital communication standards for satellite communications

F. Degertekin
Atlanta, GA USA

for contributions to micromachined ultrasonic and optomechanical transducers and systems

Dr. Fang Deng
Novi, MI USA

for contributions to permanent magnet drive design and control methodology

Massimiliano Di Ventra
La Jolla, CA USA

for contributions to quantum transport in nanoscale systems and in-memory computing

Prof. Alexandros G. Dimakis
Austin, TX USA

for contributions to distributed coding and learning

Sorin Draghici
Ann Arbor, MI USA

for contributions to the analysis of high-throughput genomics and proteomics data

Donald Dunn
Highlands, TX USA

for contributions to process control systems

Dr. Trung Q. Duong
Belfast, United Kingdom

for contributions to cooperative communications and physical layer security

Prof. Tarek El-bawab
Boston, MA USA

for contributions to the definition, recognition, accreditation criteria, and program development of modern network-engineering education

R. Scott Erwin
Albuquerque, NM USA

for leadership and contributions to the development, implementation and on-orbit demonstration of spacecraft control technologies

Dr. Carol Espy-wilson
College Park, MD USA

for contributions to speech enhancement and recognition

Dr. Sonia Fahmy
West Lafayette, IN USA

for contributions to design and evaluation of network protocols and sensor networks

Lingling Fan
Tampa, FL USA

for contributions to stability analysis and control of inverter-based resources

Prof. Martin Farach-Colton
New York, NY USA

for contributions to data structures for storage systems

Junlan Feng
Beijing, China

for leadership in spoken dialog applications, AI platform, and network intelligence

Dr. Bonnie Ferri
Atlanta, GA USA

for contributions to hands-on learning and leadership in higher education

Prof. Cedric Fevotte
Toulouse, Midi-Pyrenees, France

for contributions to nonnegative matrix factorization, source separation, and spectral unmixing

Dr. Alessandro Foi
Tampere, Finland

for contributions to image restoration and noise modeling

Prof. Giancarlo Fortino
Rende, Italy

for contributions to Engineering of IoT-enabled Wearable Computing Systems

Prof. Eric Fosler-lussier
Columbus, OH USA

for contributions to spoken language technology by integrating linguistic models with machine learning

Daniel Friedman
Yorktown Heights, NY USA

for contributions to RFID and phase-lock-loop systems

Prof. Xiaoming Fu
Goettingen, Niedersachsen, Germany

for contributions to resource management in edge computing and networking

Ibrahim Gedeon
Edmonton, AB Canada

for leadership in consumer-oriented applications of broadband communications

Apostolos Georgiadis
The Hague, Zuid-Holland, Netherlands

for contributions to designs of RF energy harvesting circuits

Dr. Tobias Geyer
Ennetbaden, Aargau, Switzerland

for contributions to control and modulation of high-power converters

Simon Godsill
Cambridge, United Kingdom

for contributions to statistical signal processing for tracking and audio restoration

Dr. Nada Golmie
Gaithersburg, MD USA

for contributions to wireless technologies and standards

Prof. Albert Guillen I Fabregas
Cambridge, United Kingdom

for contributions to the analysis and design of wireless communication systems

Deniz Gunduz
Reading, Reading, United Kingdom

for contributions to the foundations of source-channel coding, cooperative and cache-aided communications

Dr. Chuanxiong Guo
Bellevue, WA USA

for contributions to design of data center networking

Prof. Puneet Gupta
Los Angeles, CA USA

for contributions to the design and co-optimization of integrated circuits

Vijay Gupta
Notre Dame, IN USA

for contributions to networked and cyber-physical systems

Prof. Edmundo Gutierrez-d.
Tonantzintla, Puebla, Mexico

for contributions to education and infrastructure in the field of electron devices in Latin America

Prof. Junwei Han
Xi'an, China

for contributions to visual saliency detection and image understanding

Prof. Gerhard Hancke
Kowloon, Hong Kong

for contributions to secure and resilient wireless technology for the Industrial Internet-of-Things

Tony Heinz
Stanford, CA USA

for contributions to spectroscopic techniques, nanophotonics, and optical nanomaterials

Jeffrey Hesler
Charlottesville, VA USA

for contributions to development of terahertz components and instrumentation

Prof. Daniel Hissel
Ronchamp, France

for contributions to the development of hydrogen-energy systems and their industrial applications

Torsten Hoefler
Pfaeffikon, Switzerland

for contributions to large-scale parallel processing systems and supercomputers

Prof. Heath Hofmann
Ann Arbor, MI USA

for contributions to electric machinery and drive systems

Dr. David Horsley
Davis, CA USA

for development of micro-electromechanical systems for ultrasonic transduction

Dr. Steve Hranilovic
Hamilton, ON Canada

for contributions to optical wireless communication systems

Sun-Yuan Hsieh
Tainan, Taiwan

for contributions to fault-tolerance for internet and cloud computing

Guohan Hu
Yorktown Heights, NY USA

for contributions to Spin-Transfer-Torque MRAM materials and devices

Qi Huang
Chengdu, Sichuan, China

for leadership in informatics for smart electric energy system

Prof. Jin Hur
Incheon, South Korea

for contributions to design of permanent magnet synchronous motors

Prof. Ihab Ilyas
Waterloo, ON Canada

for contributions to data integration, data cleaning and rank-aware query processing

Prof. Tommaso Isernia
Reggio Calabria, Italy

for contributions on antennas synthesis and inverse scattering problems

Dr. Mahesh Iyer
Fremont, CA USA

for leadership in ASIC and FPGA Electronic Design Automation

Prof. Mathews Jacob
Iowa City, IA USA

for contributions to computational biomedical imaging

Prof. Tseng King Jet
Singapore, Singapore

for contributions to permanent magnet machines and distributed energy resources

Dr. Jack Jewell
Boulder, CO USA

for development of vertical-cavity surface-emitting lasers

Prof. Yusheng Ji
Tokyo, Japan

for contribution to distributed computing in mobile and dynamic systems

Prof. Jian Xun Jin
Tianjin, China

for development of operational high-temperature superconducting power devices

Prof. Admela Jukan
Braunschweig, Germany

for contributions to optical communications and networking

Prof. Murat Kantarcioglu
Richardson, TX USA

for contributions to data management and analytics

Prof. Soumya Kar
Pittsburgh, PA USA

for contributions to distributed signal processing

Stamatis Karnouskos
Berlin, Germany

for leadership in industrial cyber-physical systems and smart grids

Prof. Hideki Kawahara
Ikoma, Nara Japan

for contributions to auditory-inspired speech signal processing and science

Prof. Kevin Kelly
Houston, TX USA

for contributions to compressive imaging

Prof. Andrew Kent
New York, NY USA

for contributions to the application of spin-transfer torques in nano-scale devices

Prof. Vinod Khadkikar
Abu Dhabi, United Arab Emirates

for contributions to power quality solutions

Prof. Latifur Khan
Plano, TX USA

for contributions to stream analytics and ontology for big data

Prof. Aberrahmane Kheddar
Tsukuba, Japan

for contributions to robotic haptics and humanoids

Robert Killey
London, United Kingdom

for contributions to digital signal processing for high-speed, nonlinear optical communications systems

Prof. Chul-Hwan Kim
Suwon, Gyeonggi-do, South Korea

for contribution to protective relaying methods to reduce power system outages

Dr. Jin-Woo Kim
Fayetteville, AR USA

for contributions to nanoscale fabrication of bio/nano-hybrid materials

William King
Urbana, IL USA

for contributions to nano-scale measurements and nano-manufacturing

Dr. John Kitching
Boulder, CO USA

for contribution to Chip-Scale Atomic Clock and Atomic Magnetometer

Prof. Elisa Konofagou
New York, NY USA

for contributions to ultrasound for cardiovascular and cancer diagnosis, neuromodulation and brain drug delivery

Dr. Slawomir Koziel
Reykjavik, Iceland

for contributions to modeling and optimization of microwave devices and circuits

Dr. Hariharan Krishnan
Troy, MI USA

for contributions to connected vehicle safety systems

Dr. Katherine Kuchenbecker
Stuttgart, Baden-Wuerttemberg, Germany

for contributions to interactive haptic systems and robotic touch perception

Dr. Sarah Kurtz
Merced, CA USA

for contributions to photovoltaic devices and systems reliability

Ioannis Kymissis
New York, NY USA

for contributions to thin-film electronics for displays and sensors

Michael Langberg
Buffalo, NY USA

for contributions to the theory and practice of network coding

Prof. Buon Kiong Lau
Lund, Sweden

for contributions to multi-antenna systems in wireless communications

Kang-Won Lee
Seoul, South Korea

for contribution to development of SDN and virtualization technologies for 5G wireless networks

Prof. AMIR Leshem
Ramat-Gan, Israel

for contributions to multi-channel and multi-agent signal processing

Dr. Yves Letraon
Luxembourg, Luxembourg

for contribution to software analysis and testing

Dr. Feifei Li
Salt Lake City, UT USA

for contributions to database query processing and optimization, and to cloud database systems

Qing Li
Kowloon, Hong Kong

for contributions to machine learning in multimedia, data mining and data warehousing

Prof. Zhijun Li
Shanghai, Shanghai China

for contributions to control systems for wearable robotics and bio-mechatronics

Prof. Keqiu Li
Tianjin, China

for contributions to resource-efficient and QoS-oriented cloud computing

Youfu Li
Kowloon, Hong Kong

for contributions to active visual sensing

Prof. Yingbin Liang
Dublin, OH USA

for contributions to information theoretic methods for wireless systems

Prof. Shih-Chii Liu
Zurich, Switzerland

for contributions to neuromorphic engineering

Prof. Tian-Hua Liu
Taipei, Taiwan

for contributions to sensorless control for AC drives

Ping Liu
Arlington, TX USA

for contributions to permanent magnet research and magnetic nanoparticle synthesis and characterization

Shan Liu
San Jose, CA USA

for leadership in multimedia and multicore processors

Prof. David Lo
Singapore, Singapore

for contributions to software analytics

Dr. Hang-Ting Lue
Hsinchu, Taiwan

for contributions to charge-trapping memories and 3D NOR flash

Prof. Robyn Lutz
Ames, IA USA

for contributions to software requirements for safety-critical systems

Prof. Siwei Lyu
Buffalo, NY USA

for contributions to digital media forensic technologies

Trevor Maguire
Winnipeg, MB Canada

for Leadership in the Development of Large Scale Real-Time Power Systems Simulators

Roland Malhame
Montreal, QC Canada

for contributions to mean-field games and stochastic hybrid systems

Dr. Shie Mannor
Haifa, Israel

for contributions to reinforcement learning and decision-making under uncertainty

Prof. Zhuoqing Mao
Ann Arbor, MI USA

for contributions to performance and security of internet routing and mobile systems

Prof. Ignacio Matias
Pamplona, Navarra, Spain

for contributions to photonic sensor research and transference to industry

Prof. Saad Mekhilef
Kuala Lumpur, Malaysia

for contributions to control methods for photovoltaic systems and multi-level inverters

Dr. Igor Mezic
Santa Barbara, CA USA

for contributions to modeling and control using Koopman operator techniques

Dr. Zetian Mi
Ann Arbor, MI USA

for contributions to III-nitride photonics and clean energy

Prof. Silvestro Micera
Lausanne, Switzerland

for contributions to restoration of human sensorimotor functions using engineered neuroprostheses

Prof. Sudip Misra
Kharagpur, West Bengal, India

for contributions to intelligent sensing in constrained IoT environments

Dr. Moriyasu Miyazaki
Sagamihara City, Kanagawa, Japan

for leadership in developments of airborne active-phased-array radars and satellite communication microwave subsystems

Dr. Hiroyuki Mizuno
Kokubunji, Tokyo, Japan

for contributions to leakage current reduction in integrated circuits

Dr. Apurva Mody
Chelmsford, MA USA

for leadership in cognitive dynamic spectrum sharing and standards

Dr. Weibert Montlouis
Columbia, MD USA

for leadership in the development of radar systems

Prof. Masato Motomura
Yokohama, Kanagawa, Japan

for contributions to memory-logic integration of reconfigurable chip architecture

Dr. Debargha Mukherjee
Mountain View, CA USA

for leadership in standard development for video-streaming industry

Prof. Vittorio Murino
Genova, Italy

for contributions to signal processing for behavior analysis

Dr. Mukesh Nagpal
Burnaby, BC Canada

for contributions to economic and safe integration of distributed renewables in electric utility networks

Prof. Babak Nahid-Mobarakeh
Hamilton, ON Canada

for contributions to service continuity of electric motor drive systems

Dr. Sae Woo Nam
Boulder, CO USA

for pioneering development of superconducting single-photon detectors with applications to quantum communications and quantum computing

Prof. Abdolhosein Nasiri
Milwaukee, WI USA

for contributions to high power converters for energy storage systems and microgrids

Dr. Isaac Nassi
Los Gatos, CA USA

for leadership in parallel and distributed systems and adaptive systems

Prof. Nassir Navab
Garching, Bayern, Germany

for contributions to augmented reality in medicine and computer-assisted interventions

Dr. Krishna Nayak
Long Beach, CA USA

for contributions to real-time magnetic resonance imaging of the human heart and vocal tract airway

Jerald Nesor
Moorestown, NJ USA

for contributions to Digital AESA Radar Systems

Philip Neudeck
Cleveland, OH USA

for contributions to silicon carbide electronics and crystal growth

Dr. Nathan Newbury
Boulder, CO USA

for contributions to optical frequency comb metrology

Prof. Sam Noh
Ulsan, South Korea

for contributions to storage system software for flash and nonvolatile memory

Dr. Yoshihiro Ohba
Kawasaki, Kanagawa, Japan

for contributions to standardization of network security protocols

Prof. Mario Paolone
Lausanne, Vaud, Switzerland

for contributions to situational-awareness and control of power distribution systems

Dr. Sung Ik Park
Daejeon, South Korea

for contributions to physical layer development of broadcast systems

Prof. Gianmario Pellegrino
Torino, Italy

for contributions to Synchronous Reluctance machines identification and control

Dr. Thomas Penzel
Berlin, Germany

for contributions to biosignal analysis for sleep medicine

Prof. Adrian Perrig
Zurich, Switzerland

for contributions to network and system security

Dr. Anh-Vu Pham
Davis, CA USA

for contribution to organic packaging technologies

Gopal Pingali
Bengaluru, Karnataka, India

for contributions to hybrid cloud computing and real-time multimedia systems

Prof. Joyce Poon
Toronto, ON Canada

for contributions to integrated photonics on silicon and resonant microphotonic devices

Prof. Eric Pop
Stanford, CA USA

for contributions to phase-change memory

Prof. Marjan Popov
Delft, Netherlands

for contributions to high-frequency transformer and circuit breaker modeling

Christophe Prieur
Grenoble, France

for contribution to nonlinear control systems

Prof. GuoJun Qi
Bellevue, WA USA

for contributions to multimedia analysis and applications

Rajesh Rajamani
Saint Paul, MN USA

for contributions to vehicle control in intelligent transportation systems

Satish Ranade
Las Cruces, NM USA

for contributions to integration of renewable and distributed energy resources into power systems

Dr. Clive Randall
University Park, PA USA

for contributions to the formulation, processing, and characterization of electroceramics

Prof. Arijit Raychowdhury
Atlanta, GA USA

for contributions to energy-efficient adaptive integrated circuit design

Prof. Daniel Razansky
Zurich, Switzerland

for contributions to multispectral optoacoustic tomography

Dr. Sorel Reisman
Newport Beach, CA USA

for leadership in design, implementation and adoption of open education resources

Dr. Christopher Rodenbeck
Annandale, VA USA

for contributions to radar microsystems for ultrawideband and millimeter-wave applications

Dr. Haisheng Rong
Santa Clara, CA USA

for contributions to silicon photonics devices

Prof. Thomas Runkler
Muenchen, Germany

for contributions to computational intelligence in clustering and control

Maryam Saeedifard
Atlanta, GA USA

for contributions to modulation, control and protection of multilevel converters for high-voltage DC transmission

Tara Sainath
Jersey City, NJ USA

for contributions to deep learning for automatic speech recognition

Prof. Ricardo Sanfelice
Santa Cruz, CA USA

for contributions to hybrid feedback control systems

Prof. Bulent Sarlioglu
Madison, WI USA

for applications of electrical drives in the aerospace industry

Mladen Sasic
Etobicoke, ON Canada

for contributions to development of diagnostics testing of motor and generator windings

Dr. Tadashi Sawata
Coventry, United Kingdom

for contributions to motor drive systems for more electric aircraft

Dr. Peter Seiler
Ann Arbor, MI USA

for contributions to robust control theory and computational tools

Dr. Bernhard Sendhoff
Offenbach/Main, Hessen, Germany

for contributions to evolutionary optimization and its engineering applications

Devavrat Shah
Cambridge, MA USA

for contributions to network and information science, inference and machine learning

Prof. Shiguang Shan
Haidian, Beijing, China

for contributions to visual signal processing and recognition

Prof. Heng Tao Shen
Chengdu, Sichuan, China

for contributions to multimedia content understanding and retrieval

Prof. Timothy Sherwood
Santa Barbara, CA USA

for contributions to computer system security and performance analysis

Steven Simske
Fort Collins, CO USA

for contributions to anti-counterfeiting and cyber-physical security

Dr. Hanumant Singh
Boston, MA USA

for development of localization and mapping techniques and autonomous systems for marine and polar applications

Dr. Brij Singh
West Fargo, ND USA

for applications of electric drive to off-road vehicles

Kumar Sivarajan
Bangalore, India

for leadership in optical networking

Prof. Florian Solzbacher
Salt Lake City, UT USA

for the development of tools enabling applied and translational neuroscience and neural engineering

Dr. Narayan Srinivasa
San Jose, CA USA

for contributions to neural network and neuromorphic computing architectures, circuits and algorithms

Dr. Anurag Srivastava
Morgantown, WV USA

for contributions to electric grid resiliency

Prof. Thomas Stieglitz
Freiburg, Germany

for contributions to flexible micromachined neural interfaces and microimplants

Dr. Mark Stiles
Gaithersburg, MD USA

for contributions to spintronics devices and data storage

Dr. Ad Stoffelen
De Bilt, Netherlands

for contributions to satellite wind measurement missions

Prof. S Sudarshan
Mumbai, Maharashtra, India

for contributions to query processing and optimization in databases

Dr. Nobuyuki Sugii
Tokyo, Japan

for contributions to fully depleted silicon-on-insulator technology

Dr. Richard Tabors
South Dartmouth, MA USA

for development of technologies for real-time locational pricing of electricity for efficient electric power markets

Dr. Chuan Seng Tan
Singapore, Singapore

for contributions to wafer bonding technology for 3D packaging and integration

Prof. Juan Tardos
Zaragoza, Spain

for contributions to simultaneous localization and mapping with visual sensors

Daniel Tzartas
West Hills, CA USA

for contributions to inertial sensors and navigation systems

Dr. Kiyohisa Terai
Yokohama, Kanagawa, Japan

for contribution to optical fiber sensors and electrical discharge applications

Rajeev Thakur
Lemont, IL USA

for contributions to high-performance interfaces for scalable computing systems

Prof. Yonghong Tian
Haidian, Beijing, China

for contributions to knowledge-based visual data analysis

Dr. Hanghang Tong
Champaign, IL USA

for contributions to graph mining

Gregg Trahey
Durham, NC USA

for contributions to speckle tracking and acoustic radiation force impulse imaging in medical ultrasound

Prof. Ivor Tsang
Sydney, New South Wales, Australia

for contributions to large-scale machine learning and transfer learning

Dr. Tetsuzo Ueda
Toyonaka-Shi, Osaka, Japan

for contributions to III-V compound semiconductor technologies

Shambhu Upadhyaya
Buffalo, NY USA

for contributions to the mitigation of insider attacks and malware in cyberspace

Elif Uysal
Ankara, Turkey

for pioneering contributions to energy-efficient and low latency communications

Dr. Mikhail Vaiman
Los Angeles, CA USA

for contributions to methods and software for real-time analysis and control of electric power systems

Pietro Valdastri
Leeds, United Kingdom

for contributions to medical capsule robots

Prof. Mikko Valkama
Tampere, Finland

for contributions to physical layer signal processing in radio systems

Prof. Daniel Van Der Weide
Madison, WI USA

for contributions to ultrafast terahertz electronics and biomedical applications of microwave technologies

Dr. Frank Van Diggelen
Carmel By The Sea, CA USA

for contributions to assisted global navigation satellite systems for consumer applications

Prof. Marten Van Dijk
Den Bosch, Netherlands

for contributions to secure processor design and encrypted computation

Prof. Mayank Vatsa
Jodhpur, Rajasthan, India

for contributions to secure biometric recognition

Ashok Veeraraghavan
Houston, TX USA

for contributions to computational photography and computer vision

Dr. Peter Vetter
Summit, NJ USA

for leadership in broadband access technologies in advanced passive optical networks

Dr. Emmanuel Vincent
Villers-les-Nancy, France

for contributions to audio source separation and challenge series methodology

Dr. Sriram Vishwantath
Austin, TX USA

for contributions to information theory and coding for wireless communication systems

Dr. Dimitris Visvikis
Nantes Cedex, France

for contributions to image reconstruction and analysis of positron emission tomography

Prof. Richard Voyles
West Lafayette, IN USA

for leadership in the implementation of programs that foster robotics research and the robotics community

Prof. Valeriy Vyatkin
Espoo, Finland

for contributions to software development methods and practices in industrial automation

Christian Waldschmidt
Ulm, Baden-Wuerttemberg, Germany

for contributions to millimeter wave automotive radar sensors

Dr. Jingdong Wang
Beijing, China

for contributions to visual content understanding and retrieval

Dr. Haifeng Wang
Beijing, China

for contributions and leadership in natural language processing and AI technologies

Jun Wang
Orlando, FL USA

for contributions to low power disk storage system design

Dr. Guiling Wang
Newark, NJ USA

for contributions to distributed algorithm design for sensor networks and vehicular networks

Dr. Yu Wang
Beijing, China

for contributions to domain specific accelerator design

Dr. Ping Wang
Toronto, ON Canada

for contributions to radio resource allocation and performance modeling of heterogeneous wireless networks

Qing Wang
University Park, PA USA

for contributions to polymer dielectrics for capacitive energy storage

Prof. Dongmei Wang
Atlanta, GA USA

for contributions to biomedical informatics and AI

Prof. Gregory Welch
Longwood, FL USA

for contributions to tracking methods in augmented reality applications

Matthew Wilkowski
Rockwall, TX USA

for contributions to integration and productization of magnetics for power electronics

Prof. Rebecca Willett
Chicago, IL USA

for contributions to the foundations of computational imaging and large-scale data science

Andrew Wolfe
Los Gatos, CA USA

for contributions in hardware code compression of embedded software power consumption analysis and optimization

Prof. Lei Wu
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for contributions to stochastic modeling and optimization of power systems and large interdependent infrastructures

Prof. Cathy Wu
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for contributions to computational biology and data science

Dr. Peter Wurman
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for contributions to computational auction, multiagent systems and robotics

Dr. Xing Xie
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for contributions to spatial data mining and recommendation systems

Prof. Le Xie
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for contributions to economic and secure operations of power systems and big data analytics

Prof. Huili Helen Xing
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for contributions to GaN high-electron-mobility transistors

Prof. Li Xiong
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for contributions to privacy preserving and secure data sharing

Ying Xu
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for contributions to knowledge discovery from biological data

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for contributions to defect/fault detection and diagnosis of rotating machines

Dr. Zheng Yang
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for contributions to wireless localization and sensing

Dr. Guang-Hong Yang
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for contributions to fault tolerant control of dynamical systems

Dr. Zhiping Yang
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for contributions to signal and power integrity in high-performance data center electronics

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for contributions to 3D computer vision and autonomous driving

Prof. Chunhua Yang
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for contributions in intelligent control and optimization of complex industrial processes

Prof. Jianhua Yang
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for contributions to resistive switching materials in memory and neuromorphic computing

Prof. Liangzhong Yao
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for leadership in HVDC grid supporting integration of large wind farms

Dr. Xiaoning Ye
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for contributions to high-speed interconnect design, optimization, and measurement methods

Prof. Lei Ying
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for contributions to resource allocation in cloud computing systems and wireless networks

Prof. Euisik Yoon
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Prof. Mohamed Younis
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for contributions to protocols, architecture, and analysis of multi-hop wireless networks

Prof. Jiguo Yu
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for contributions to data storage and processing in cloud and social environments

Prof. Sandro Zampieri
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for contributions to distributed and networked control

Prof. Carl Zetterling
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for contributions to silicon carbide devices

Prof. Xiuyin Zhang
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for contributions to the design of filtering antennas

Dr. Jun Zhang
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for contributions to dense wireless networks

Dr. Liang Zhang
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for contributions to non-orthogonal multiplexing technology in terrestrial broadcast and broadband systems

Prof. Guoying Zhao
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for contributions to facial expression analysis and feature representation

Dr. Yefeng Zheng
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for contributions to machine learning for medical imaging

Zhangdui Zhong
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for contributions to theory, technology and development of mobile communications for railways

Prof. Anding Zhu
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for contributions to behavioral modeling and digital predistortion of RF power amplifiers

Dr. Jiang Zhu
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for contributions to antenna design for wireless communications

Prof. Gil Zussman
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