Prof. Tarek Abdelzaher  
Urbana, IL, USA  

_for contributions to cyber-physical systems and real-time computing_

Prof. Enrique Acha  
Tampere, Finland  

_for contributions to power electronics modelling and applications in electrical power systems_

Prof. Deji Akinwande  
Austin, TX, USA  

_for contributions to wafer-scale graphene synthesis and application to flexible devices_

Dr. Ahmed Ali  
Greensboro, NC, USA  

_for leadership in high-speed analog-to-digital converter design and calibration_

David Allan  
Fountain Green, UT, USA  

_for contributions to timing systems, and precision clocks_

Prof. Aaron Ames  
Pasadena, CA, USA  

_for contributions to hybrid and safety-critical nonlinear control with demonstration on robotic systems_

Prof. Animashree Anandkumar  
Pasadena, CA, USA  

_for contributions to theory and applications in signal processing, machine learning, and artificial intelligence_

Prof. Gianluca Antonelli  
Cassino, Italy  

_for contributions to modeling and control of underwater robot_
Dr. Mohammad Nazmul Anwar
Pontiac, MI, USA

for contributions to the system-balanced-robust power electronics design methodology for electrified vehicles

Hideaki Aochi
Kawasaki, Japan

for contributions to three dimensional flash memories

Prof. Alberto Avolio
Sydney, Australia

for contributions to knowledge and monitoring of arterial hemodynamics

Dr. Alireza Bakhshai
Kingston, ON, Canada

for contributions to the development of synchronization techniques for power electronics converter

Dr. Rajeev Balasubramonian
Salt Lake City, UT, USA

for contributions to in-memory computation and memory interface design

Prof. Timothy Barfoot
Toronto, ON, Canada

for contributions to mobile robot navigation

Prof. David Basin
Zurich, Switzerland

for contributions to formal methods for information security

Prof. Mehdi Bennis
Oulu, Finland

for contributions to resource optimization in heterogeneous and low-latency wireless network
Dr. Achintya Bhowmik
Cupertino, CA, USA

for leadership in perceptual augmentation devices

Prof. Wim Bogaerts
Gent, Belgium

for contributions to design methodologies for silicon photonics components and circuits

Prof. Peter Burke
Irvine, CA, USA

for contributions to active and passive microwave devices

Prof. Danijela Cabric
Los Angeles, CA, USA

for contributions to theory and practice of spectrum sensing and cognitive radio systems

Prof. Jianfei Cai
Melbourne, VC, Australia

for contributions to multimedia transmission and content analysis

Prof. Benton Calhoun
Charlottesville, VA, USA

for contributions to sub-threshold integrated circuits and self-powered systems

Prof. Kirk Cameron
Blacksburg, VA, USA

for contributions to measurement and management of energy in high-performance-computing systems
Calin Cascaval  
Mountain View, CA, USA  

_for contributions to programming models for parallel machines and heterogeneous mobile devices_

Prof. Chan-Byoung Chae  
Seoul, Korea  

_for contributions to MIMO design and prototypes for emerging communication systems_

Prof. Yogesh Chauhan  
Kanpur, India  

_for contributions to compact modeling of Si and GaN transistors_

Prof. Min Chen  
Wuhan, China  

_for contributions to data-driven communication, caching, and computing_

Dr. Jingdong Chen  
Xi'an, China  

_for contributions to microphone array processing and speech enhancement in noisy and reverberant environments_

Prof. Yaow-Ming Chen  
Taipei, Taiwan  

_for contributions to grid-connected power converters for renewable energy applications_

Prof. Gene Cheung  
Toronto, ON, Canada  

_for contributions to graph spectral image processing and interactive video streaming_

Prof. Gabriella Cincotti  
Rome, Italy  

_for contributions to planar photonic devices and beam diffraction in anisotropic media_
Dr. Stefano Coraluppi
Woburn, MA, USA

_for contributions to multi-sensor multi-target tracking_

Prof. Bruce Croft
Amherst, MA, USA

_for contributions to information retrieval_

Prof. Huang De Shuang
Shanghai, China

_for contributions to neural networks for pattern recognition and bioinformatics_

Bronis de Supinski
Tracy, CA, USA

_for leadership in the design and use of large-scale computing systems_

Prof. Filip De Turck
Gent, Belgium

_for contributions to network resource management and adaptive service delivery_

Prof. Domitilla Del Vecchio
Cambridge, MA, USA

_for contributions to circuit engineering in synthetic biology_

Prof. Hilmi Demir
Ankara, Turkey

_for contributions to semiconductor nanocrystal optoelectronics, colloidal nanophotonics, and lighting_

Dr. David Donoho
Stanford, CA, USA

_for contributions to sparse signal acquisition and processing_
Prof. Sebastian Elbaum  
Charlottesville, VA, USA  

*for contributions of testing techniques for evolving systems*

Prof. Jaafar M.H. Elmirghani  
Leeds, UK  

*for contributions to energy-efficient communications*

Dr. Issam El-Naqa  
Ann Arbor, MI, USA  

*for contributions to machine learning applications in medicine and imaging*

Dr. Rudy Emrick  
Gilbert, AZ, USA  

*for contributions to the development of millimeter-wave communication systems*

Prof. Natalie EnrightJerger  
Toronto, ON, Canada  

*for contributions to networks-on-chip for many-core architectures*

Prof. Michael Ernst  
Seattle, WA, USA  

*for contributions to software analysis, testing, and verification*

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Ann Arbor, MI, USA  

*for leadership and scholarship in engineering education*

Prof. Vasilis Fthenakis  
New York, NY, USA  

*for contributions to photovoltaics technology*
Dr. Evgeniy Gabrilovich
Mountain View, CA, USA

for contributions to web information retrieval technology

Dr. Haris Gačanin
Antwerp, Belgium

for development of operations and management systems for home broadband networks

Prof. Joao Gama
Porto, Portugal

for contributions to mining data streams

Prof. Sharon Gannot
Ramat-Gan, Israel

for contributions to acoustical modelling and statistical learning in speech enhancement

Prof. Wenzhong Gao
Denver, CO, USA

for contributions to grid integration of wind power and electric vehicle technology

Prof. Jonathan Garibaldi
Nottingham, UK

for contributions to computational intelligence techniques in data analysis and decision support

Prof. James Gee
Philadelphia, PA, USA

for contributions to medical image processing and analysis

Dr. Hua Geng
Beijing, China

for contribution to control of renewable energy power converters
Prof. Lise Getoor
Santa Cruz, CA, USA

for contributions to machine learning and reasoning under uncertainty

Prof. Yolanda Gil
Los Angeles, CA, USA

for contributions to geoscience and scientific discovery with intelligent workflow systems

Dr. Oriol Gomis Bellmunt
Barcelona, Spain

for contributions to grid integration of renewable energy sources

Yifan Gong
Redmond, WA, USA

for leadership in creating cloud speech recognition services in industry

Prof. Amit Goyal
Buffalo, NY, USA

for contributions to high-temperature superconducting materials

Dr. Deepak Goyal
Chandler, AZ, USA

for contributions to fault isolation and failure analysis

Dr. David Gracias
Baltimore, MD, USA

for contributions to three-dimensional assembly and origami engineering of nanostructured materials and devices
Newly Elevated Fellow Class 2021

Michael D. Griffin
Birmingham, AL, USA

For leadership in space infrastructure and Space Shuttle, International Space Station, Hubble and other missions

Prof. Matthias Grossglauser
Lausanne, Switzerland

For contributions to the modeling and analysis of network traffic and data

Prof. Yongpei Guan
Gainesville, FL, USA

For contributions to robust and stochastic optimization for power system operations

Dr. Dongning Guo
Evanston, IL, USA

For contributions to multi-user detection and estimation theory

Prof. Shuxiang Guo
Takamatsu, Japan

For contributions to medical robots for minimally invasive surgery and biomimetic underwater robots

Dr. Amit Gupta
Singapore, Singapore

For leadership in power conversion systems

Dr. Ismail Guvenc
Raleigh, NC, USA

For contributions to heterogeneous wireless networks and wireless localization

Prof. Wolfgang Heidrich
Thuwal, Saudi Arabia

For contributions to high dynamic range display and computational cameras
Prof. Robert Henderson
Edinburgh, UK

_for contributions to solid-state single photon imaging_

Dr. Enrique Herrera-Viedma
Granada, Spain

_for contributions to fuzzy decision systems and linguistic modeling_

Dr. Paul Hershey
Arlington, VA, USA

_for application of data analytic to assist human decision-making_

Stephen Hodges
Cambridge, UK

_for leadership in pervasive computing systems_

Prof. Ayanna Howard
Atlanta, GA, USA

_for contributions to human-robot interaction systems_

Dr. Kaibin Huang
Hong Kong, Hong Kong

_for contributions to wirelessly powered communications and multi-antenna communications_

Prof. Yi Huang
Liverpool, UK

_for contributions to rectenna technology_

Dr. Chih-Lin I.
Beijing, China

_for leadership in wireless mobile networks_
Prof. Hideaki Ishii
Yokohama, Japan

*for contributions to networked control of large-scale systems*

Prof. Bruce Jacob
College Park, MD, USA

*for contributions to computer memory design and analysis*

Prof. Bernhard Jakoby
Linz, Austria

*for contributions to fluidic sensor*

Prof. Tara Javidi
La Jolla, CA, USA

*for contributions to stochastic resource allocation and active hypothesis testing*

Prof. Xiuping Jia
Kensington, Australia

*for contributions to feature mining and classification of hyperspectral images*

Dr. Xudong Jiang
Singapore, Singapore

*for contributions to face and fingerprint image recognition*

Prof. Daniel Jimenez
College Station, TX, USA

*for contributions to neural branch prediction in microprocessor research and design*

Dr. Valentin Jordanov
Santa Fe, NM, USA

*for contributions to real-time digital and analog pulse processing in radiation measurements*
Prof. Dragan Jovcic
Aberdeen, UK

for contributions to improvements in multi-terminal HVDC transmission grids and development of HVDC transformers

Dr. Inyup Kang
San Diego, CA, USA

for leadership in development of chip-set technologies for cellular communications

Stefanos Kaxiras
Uppsala, Sweden

for contributions to high-performance and power-efficient memory hierarchies

Kimberly Keeton
Palo Alto, CA, USA

for contributions to storage and memory systems

Dr. Ali Keshavarzi
Standford, CA, USA

for contributions to low-power circuits and devices in scaled CMOS technologies

Prof. Dennis Killinger
Tampa, FL, USA

for contributions to laser spectroscopy

Dr. Byoung-Hoon Kim
Seoul, Korea

for contributions to development and standardization of mobile communication technologies

Prof. Chang-Jin Kim
Los Angeles, CA, USA

for research of surface-tension-based microelectromechanical systems
NEWLY ELEVATED FELLOW CLASS 2021

Dr. Alan Kleinsasser
Pasadena, CA, USA

for contributions to superconducting electronic devices, circuits, and systems

Prof. Craig Knoblock
Los Angeles, CA, USA

for contributions to semantic data integration techniques

Nicholas Kolias
Waltham, MA, USA

for contributions to the development of Gallium Nitride monolithic microwave integrated circuit technology

Prof. Yakov Krasik
Haifa, Israel

for contributions to plasma-based electron sources

Prof. Hadas Kress-Gazit
Ithaca, NY, USA

for contributions to automated control synthesis and formal methods for robotics

Lori Lamel
Orsay, France

for contributions to automatic speech recognition

Dr. Laurent Larger
Franche-Comte, France

for contributions to optoelectronic delay oscillators and neuromorphic processing applications

Prof. Sophie LaRochelle
Quebec, QC, Canada

for contributions to fiber devices and data transmission technologies
Prof. Francis Lau
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for contributions to analysis of chaotic communications systems and low-density parity-check code design

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for contributions to computer vision

Prof. Kyoung Mu Lee
Seoul, Korea

for contributions to image restoration and visual tracking

Prof. Wenke Lee
Atlanta, GA, USA

for contributions to machine-learning-based approaches to intrusion and botnet detection

Prof. Wonjun Lee
Seoul, Korea

for contributions to multiple access and resource allocation in wireless networks

Prof. Chunming Li
Chengdu, China

for contributions to computer vision and medical image analysis

Prof. Houqiang Li
Hefei, China

for contributions to video coding and multimedia content analysis

Prof. Jiandong Li
Xi’an, China

for leadership in heterogeneous self-organizing wireless networks
Prof. Jun Li
Guangzhou, China

for contributions in hyperspectral image processing

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West Lafayette, IN, USA

for contributions to data privacy and security

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Beijing, China

for contributions to thermal infrared remote sensing

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Chongqing, China

for contributions to neurodynamic systems and chaotic cryptography

Prof. Honghai Liu
Portsmouth, UK

for contributions to theory and applications of human-machine systems

Dr. Shixia Liu
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for contributions to visual text analysis and visual model analysis

Prof. Yang Liu
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for contributions to speech understanding and language learning technology

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San Diego, CA, USA

for contributions to theoretical and computational electromagnetics
Prof. Jose Lozano
Leioa, Spain

for contributions to the estimation of distribution algorithms in evolutionary computation

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Shanghai, China

for contributions to artificial neural networks and affective brain-computer interfaces

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Shanghai, China

for development of materials and manufacturing processes for mobile devices

Dr. Le Lu
Bethesda, MD, USA

for contributions to machine learning for cancer detection and diagnosis

Dr. Ning Lu
Raleigh, NC, USA

for contributions to load modeling and control methods for providing demand side grid services

Dr. Rongxing Lu
Fredericton, NB, Canada

for contributions to security and privacy in vehicular communications

Dr. Yung-Hsiang Lu
West Lafayette, IN, USA

for contributions to energy efficiency of computer systems

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Zhejiang, China

for contributions to DC-DC power conversion and control
Dr. Huadong Ma
Beijing, China

*for contributions to multimedia sensor networks*

Prof. Roya Maboudian
Berkeley, CA, USA

*for contributions to surface coatings and structural materials for microelectromechanical systems*

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*for contributions to machine learning based cybersecurity for critical infrastructures*

Prof. Athina Markopoulou
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Prof. Dejan Markovic
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*for contributions to low-power VLSI signal processing and neurotechnology*

Prof. Jose Martinez
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*for contributions to adaptable multiprocessor computer architectures*
Dr. Dmitri Maslov
Yorktown Heights, NY, USA

for contributions to quantum circuit synthesis and optimization, and compiling for quantum computers

Prof. David Matolak
Columbia, SC, USA

for contributions to wireless channel modeling and applications

Dr. Andrey Matsko
Pasadena, CA, USA

for contributions to the development of microwave photonic oscillators

Prof. Giovanni Mazzanti
Bologna, Italy

for contributions to high voltage direct current cable systems

Prof. Matthew Mckay
Kowloon, Hong Kong

for contributions to random matrix theory in statistical signal processing

Prof. Sharad Mehrotra
Irvine, CA, USA

for contributions to the fields of data management and multimedia information retrieval

Prof. Marco Mellia
Torino, Italy

for contributions to Internet traffic analysis

Prof. Prabhat Mishra
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for contributions to system-on-chip validation and design automation of embedded systems
Prof. Yasser Mohamed  
Edmonton, AB, Canada  

*for contributions to the control and dynamic analysis of microgrids and power electronic systems*

Prof. Roberto Morandotti  
Montreal, QC, Canada  

*for contributions to integrated nonlinear and quantum optics*

Dr. Jose Moreira  
Yorktown Heights, NY, USA  

*for advances in high performance computing systems software and processor design*

Dr. Itsuro Morita  
Fujimino, Japan  

*for contributions to large-capacity transmissions systems with high-speed optical signals*

Dr. Katherine Morse  
San Diego, CA, USA  

*for contributions to standardization of simulation technologies*

Prof. Andreas Moshovos  
Toronto, ON, Canada  

*for contributions to out-of-order processor microarchitecture and multiprocessor memory systems*

Dr. Bhyrav Mutnury  
Austin, TX, USA  

*for contributions to signal integrity in complex data center systems*

Nachiappan Nagappan  
Redmond, WA, USA  

*for contributions to software reliability*
Dr. Tomohiro Nakatani
Kyoto, Japan

for contributions to far-field signal processing for speech enhancement and recognition

Dr. Omkaram Nalamasu
Santa Clara, CA, USA

for contributions to patterning solutions and advancing materials engineering for electronics, display, and energy

Dr. Chandra Namuduri
Warren, MI, USA

for contributions to power electronics for safe and energy efficient electric vehicles

Prof. Jose Neira
Zaragoza, Spain

for contributions to simultaneous localization and mapping (SLAM) for robot navigation

Prof. Wing Kwan Ng
Sydney, Australia

for contributions to resource allocation for wireless communication networks

Prof. Johan Nuyts
Leuven, Belgium

for contributions to theory and algorithms for image reconstruction in emission and transmission tomography

Prof. Salah Obayya
Giza, Egypt

for contributions to computational photonics
Prof. Roberto Oboe
Padova, Italy

*for contributions to remote motion control systems*

Dr. Jun Ohta
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*for contributions to CMOS image sensors and devices for biomedical applications*

Prof. Alessandro Orso
Atlanta, GA, USA

*for contributions to software testing and debugging*

Dr. John Owens
Davis, CA, USA

*for contributions to heterogeneous parallel computing*

Prof. Asuman Ozdaglar
Cambridge, MA, USA

*for contributions to distributed multi-agent networks*

Prof. Sanjib Panda
Singapore, Singapore

*for contributions to iterative learning control of motor drives*

Prof. Ai-Chun Pang
Taipei, Taiwan

*for contributions to resource management and service provisioning for mobile edge networks*

Prof. Leila Parsa
Santa Cruz, CA, USA

*for contributions to control of multi-phase permanent magnet motor drives*
Gurudatta Parulkar
Menlo Park, CA, USA

for contributions to improving the architecture of the internet and software defined networking

Dr. Hanchuan Peng
Nanjing, China

for contributions to visualization and quantitative analysis of large-scale biological data

Dr. Pietro Perona
Pasadena, CA, USA

for contributions to visual recognition algorithms and datasets

Prof. Chiara Petrioli
Roma, Italy

for contributions to wireless and underwater networks

Dr. Jeffrey R. Piepmeier
Greenbelt, MD, USA

for contributions to microwave radiometry to improve calibration, radio frequency interference filtering, and polarimetry

Dr. Gianluigi Pillonetto
Padova, Italy

for contributions to kernel-based linear system identification

Prof. Dario Pompili
Piscataway, NJ, USA

for contributions to underwater acoustic communication networks
Prof. Sandeep Pradhan  
Ann Arbor, MI, USA

for contributions to coding for distributed compression and structured coding

Prof. Chunjiang Qian  
San Antonio, TX, USA

for contributions to control and estimation of nonlinear systems

Prof. Gang Qu  
Los Angeles, CA, USA

for contributions to hardware intellectual property protection and security

Prof. Daniel Quevedo  
Queensland, Australia

for contributions to optimal and model predictive control

Prof. Louiqa Raschid  
College Park, MD, USA

for contributions to data management, information integration and data mining

Dr. Akshay Rathore  
Montreal, QC, Canada

for contributions to the design and advancement of power electronics for drives and automotive industries

Dr. Martin Reddy  
San Francisco, CA, USA

for contributions to conversational artificial intelligence
Dr. Gamal Refai-Ahmed
Santa Clara, CA, USA

for leadership in thermal management of electronics product development

Bryan Root
Burnsville, MN, USA

for leadership in improving semiconductor reliability test methods

Prof. Grigore Rosu
Urbana, IL, USA

for contributions to runtime verification and programming language semantics

Dr. Claude Samson
Sophia Antipolis, France

for contributions to mobile and underactuated mechanical systems control

Prof. Paul Sanberg
Tampa, FL, USA

for contributions to stem cell therapies for neurodegenerative conditions

Ruhi Sarikaya
Seattle, WA, USA

for leadership in spoken-language-processing and conversational understanding systems

Prof. Jacquelen Scherpen
Groningen, Netherlands

for contributions to nonlinear model reduction and passivity-based control

Prof. Dieter Schmalstieg
Graz, Austria

for contributions to augmented reality
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Dr. Julia Schnabel
London, UK

for contributions to medical image computing

Dr. Eve Schooler
Portola Valley, CA, USA

for contributions to multimedia protocols and internet standards

Prof. Gesualdo Scutari
West Lafayette, IN, USA

for contributions to distributed optimization in signal processing and communications

Dr. Kalyan Sen
Monroeville, PA, USA

for the development and application of power flow control technology

Prof. Ashwin Seshia
Cambridge, UK

for contributions to resonant-based inertial and mode-localized sensors

Prof. Ling Shao
Abu Dhabi, United Arab Emirates

for contributions to computer vision and representation learning

Prof. Jinhua She
Hachioji, Japan

for contributions to intelligent control of complex metallurgical processes

Prof. Alla Sheffer
Vancouver, BC, Canada

for contributions to mesh parameterization and hexahedral meshing
Prof. Guangming Shi  
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for contributions to image representation and image reconstruction

Prof. Hyundong Shin  
Yongin-si, Korea

for contributions to the analysis and design of wireless communication and networking

Dr. Robert Shin  
Cambridge, MA, USA

for leadership in electromagnetic modeling of radar systems and in microwave remote sensing

Prof. Richa Singh  
New Delhi, India

for contributions to robust and secure biometrics

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Johannesburg, South Africa

for leading micro/nanoelectronics research and education in Africa

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Saint Louis, MO, USA

for contributions to networked and secure control systems

Prof. Ramteen Sioshansi  
Columbus, OH, USA

for contributions to energy storage in electric power systems

Prof. Poul Sorensen  
Kongens Lyngby, Denmark

for contributions to wind power converter control and grid integration
Prof. Suresh Srivastava  
Kanpur, India

for contributions to power system security and stability

Prof. Erik Strom  
Gothenburg, Sweden

for contributions to reliable low latency communications and synchronization of code-division systems

Prof. Tetsuya Suemitsu  
Sendai, Japan

for contributions to high-frequency high-electron-mobility transistors

Jasjit Suri  
Roseville, CA, USA

for contributions to computer-aided biomedical imaging diagnosis and its commercialization in atherosclerosis

Dr. Hiralal Suryawanshi  
Nagpur, India

for contributions to converters for renewable energy systems, drives, and electrical machines

Prof. Willy Susilo  
Wollongong, Australia

for contributions to cloud computing security

Mahesh Swamy  
Waukegan, IL, USA

for development of power electronics topologies
Prof. Mehdi Tahoori  
Karlsruhe, Germany  

_for contributions to resilient nanoscale integrated circuits_

Dr. Shinzo Tamai  
Kobe, Japan  

_for contributions to control for motor drives and three-level converters_

Dr. Jie Tang  
Beijing, China  

_for contributions to knowledge discovery from data and social network mining_

Prof. Nelson Tansu  
Bethlehem, PA, USA  

_for contributions to semiconductor photonics technologies_

Prof. Luciano Tarricone  
Lecce, Italy  

_for contributions to microwave interactions with living systems and biomedical applications_

Dr. Ivan Tashev  
Redmond, WA, USA  

_for contributions to audio signal processing systems and algorithms for commercial microphone arrays_

Prof. Stephan Ten Brink  
Stuttgart, Germany  

_for contributions to iterative detection and decoding_

Prof. My Thai  
Gainesville, FL, USA  

_for contributions to modeling, design, and optimization of networked systems_
Prof. Thomas Thundat
Buffalo, NY, USA

*for contributions to multi-modal microelectromechanical systems for chemical and biological sensors*

Dr. Edward Tiedemann
San Diego, CA, USA

*for innovation and standardization of digital cellular communications*

Prof. Mi-Ching Tsai
Tainan, Taiwan

*for leadership in magnetic materials for the electric motor industry*

Prof. Vincent Shin-Mu Tseng
Hsinchu, Taiwan

*for contributions to utility pattern mining and biomedical applications*

Dr. Takatoshi Tsujimura
Tokyo, Japan

*for contributions to the development of organic-light-emitting diode systems*

Prof. Daniela Tuninetti
Chicago, IL, USA

*for contributions to theory of repetition protocols and wireless interference management*

Prof. Mohammad Uddin
Barrie, ON, Canada

*for contributions to control techniques for AC motor drives*

Prof. Wolfgang Utschick
München, Germany

*for contributions to signal processing algorithms for multi-antenna communications systems*
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Prof. Jaideep Vaidya
Newark, NJ, USA

*for contributions to privacy protection in data analytics and access control management*

Dr. Nathan Van De Wouw
Eindhoven, Netherlands

*for contributions to hybrid, data-based and networked control*

Prof. Wil Van der Aalst
Achen, Germany

*for contributions to process mining and workflow processes*

Dr. Rath Vannithamby
Portland, OR, USA

*for contributions to resource allocation for cellular and internet of things technologies*

Dr. Sergio Vazquez
Seville, Spain

*for contributions to control techniques for power converters and drives*

Dr. Ganesh Venayagamoorthy
Clemson, SC, USA

*for contributions to the application of artificial intelligence to power systems*

Dr. Luisa Verdoliva
Naples, Italy

*for contribution to multimedia forensics*

Dr. Tuomas Virtanen
Tampere, Finland

*for contributions to sound event detection and source separation*
Prof. Joel Voldman
Cambridge, MA, USA

for contributions to electronic microscale manipulation of cells

Prof. Pascal Vontobel
Shatin N.T., Hong Kong

for contributions to graphical models for channel coding

Prof. Michael Wakin
Golden, CO, USA

for contributions to sparsity-based signal processing and compressive sensing

Dr. Cong Wang
Hong Kong, Hong Kong

for contributions to security of cloud storage and computation

Prof. Danwei Wang
Singapore, Singapore

for contributions to modelling, analysis, and control for constrained robots

Dr. Hanyang Wang
Jays Close Basingstoke, UK

for contributions to mobile terminal antennas

Prof. Hong Wang
Xi’an, China

for development, integration, and commercialization of novel dielectric ceramics and composites for passive integration
Prof. Honggang Wang
Dartmouth, MA, USA

for contributions to low power wireless for IoT and multimedia applications

Prof. Jianhui Wang
Dallas, TX, USA

for contributions to unit commitment and economic dispatch with renewable generation

Prof. Jianqing Wang
Nagoya, Japan

for contributions to electro-magnetic compatibility of biological and wearable/implant devices

Dr. Jin Wang
Columbus, OH, USA

for development of high density power converters and their use in electric cars

Dr. Lizhe Wang
Wuhan, China

for contributions to high performance computing in processing, analysis and applications of remote sensing imagery

Dr. Meng Wang
Hefei, China

for contributions to multimedia content analysis and retrieval

Prof. Xiaorui Wang
Columbus, OH, USA

for contributions to power management of data center servers and embedded systems

Prof. Yingxu Wang
Calgary, AB, Canada

for contributions to real-time autonomous systems
Prof. Zhaocheng Wang  
Beijing, China  

for contributions to pilot design and modulation of OFDM wireless systems

Prof. Zhongdong Wang  
Manchester, UK  

for contributions to insulating liquids and frequency response analysis methods for power transformers

Prof. Paul Weiss  
Los Angeles, CA, USA  

for contributions to nanoscience and specifically electronic transport in molecular systems

Prof. Fushuan Wen  
Yuquan, China  

for contributions to fault diagnosis in power grids

Prof. Geyi Wen  
Nanjing, China  

for contributions to antenna quality factor

Prof. Patrick Wheeler  
Nottingham, UK  

for contributions to matrix power converter technology

Dr. Mingzhong Wu  
Fort Collins, CO, USA  

for contributions to spintronics and magnetization

Prof. Wenchuan Wu  
Beijing, China  

for contributions to energy management, operations, and control
Dr. Yifeng Wu  
Goleta, CA, USA

for contributions to Gallium Nitride microwave and power conversion devices

Dr. Chongjin Xie  
San Mateo, CA, USA

for contributions to optical transmission and datacenter optical networking

Prof. Zheng Xu  
Zhejiang, China

for contributions to control and modeling of modular multilevel converter based HVDC transmission systems

Dr. Dong Xuan  
Columbus, OH, USA

for contributions to connected coverage in wireless networks

Dr. Yongyi Yang  
Chicago, IL, USA

for contributions to medical image recovery and analysis

Prof. Birsen Yazici  
Troy, NY, USA

for contributions to synthetic aperture radar and passive imaging

Prof. Zhinong Ying  
Lund, Sweden

for contributions to mobile terminal antenna technology
Dr. Dana Yoerger
Woods Hole, MA, USA

for development of autonomous underwater vehicles for deep ocean exploration and science

Dr. Jingyi Yu
Shanghai, China

for contributions to theoretical analysis, algorithms and systems for computational photography and computer vision

Prof. Junzhi Yu
Beijing, China

for contributions to bio-inspired swimming robots

Dr. Junsong Yuan
Buffalo, NY, USA

for contributions to human behavior understanding and video analytics

Dr. Shinji Yuasa
Tsukuba, Japan

for contributions to MgO-based magnetic tunnel junctions

Prof. Dong Yue
Nanjing, China

for contributions to network-based control and its applications to power systems

Dr. Chau Yuen
Singapore, Singapore

for contributions to energy efficient wireless communications

Prof. Firuz Zare
Queensland, Australia

for contribution to power converters and leadership role in standardization
Dr. Hamidreza Zareipour
Calgary, AB, Canada

for contributions to the modeling of energy storage for system operation and planning

Prof. Hongke Zhang
Beijing, China

for contributions to high-speed railway communications

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for contributions to computer-aided verification with efficient Boolean satisfiability solvers

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for contributions to the development of advanced piezoelectrics for transducers

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for contributions to signal processing in finance

Dr. Gan Zheng
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for contributions to optimization and design of multiuser multi-antenna communications

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for contributions to spatio-temporal data mining and urban computing
Prof. Jizhong Zhu
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for application of optimization methods for real-time economic power system operation

Prof. XiaoXiang Zhu
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for contributions to artificial intelligence and data science in Earth observation and global urban mapping

Thomas Zimmermann
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for contributions to data science in software engineering research, and practice