

## 2017 Newly Elevated Fellows

Raviraj Adve  
University of Toronto  
Toronto, ON, Canada

*for development of signal processing techniques for airborne radar*

Sos Agaian  
University of Texas at San Antonio  
San Antonio, TX, USA

*for contributions to biologically-inspired visual data processing systems*

Alexei Ashikhmin  
Bell Labs - Alcatel-Lucent  
New Providence, NJ, USA

*for contributions to information theory and communication theory*

N. Asokan  
Aalto University & University of Helsinki  
Espoo, Finland

*for contributions to system security and privacy*

Todd Austin  
University of Michigan  
Ann Arbor, MI, USA

*for contributions to simulation techniques and resilient system design in computer architecture*

John Ballato  
Clemson University  
Anderson, SC, USA

*for contributions to optical fibers and optoelectronic materials*

## 2017 Newly Elevated Fellows

Hugh Barnaby  
Arizona State University  
Tempe, AZ, USA

*for research of radiation effects in bipolar junction transistors*

Janet Barth  
NASA Goddard Spaceflight Center  
Greenbelt, MD, USA

*for leadership in spacecraft reliability and electronic systems*

Christopher Barty  
Lawrence Livermore Nat'l Laboratory  
Livermore, CA, USA

*for contributions to ultrahigh intensity lasers and advancement of X-ray and gamma-ray science*

Nader Behdad  
University of Wisconsin, Madison  
Madison, WI, USA

*for contributions to sub-wavelength electromagnetic periodic structures*

Calin Belta  
Boston University  
Boston, MA, USA

*for contributions to automated control synthesis and robot motion planning and control*

Valeria Bertacco  
University of Michigan  
Ann Arbor, MI, USA

*for contributions to computer-aided verification and reliable system design*

Kankar Bhattacharya  
University of Waterloo  
Waterloo, ON, Canada

*for contributions to electricity markets and reactive power ancillary services*

## 2017 Newly Elevated Fellows

Petronel Bigioi  
FotoNation  
Galway, Ireland

*for leadership in advancing digital imaging technology for handheld consumer devices*

Sebastien Bigo  
Nokia Bell Labs  
Nozay, France

*for contributions to optical transmission systems and networks*

Filiberto Bilotti  
Roma Tre University  
Rome, Italy

*for contributions to metamaterials for electromagnetic and antenna applications*

Terrance Boulton  
University of Colorado Colorado Springs  
Colorado Springs, CO, USA

*for contributions in biometrics and computer vision*

Robert Boyd  
University of Ottawa  
Ottawa, ON, Canada

*for contributions to the fields of nonlinear optics and photonics*

R. Michael Buehrer  
Virginia Tech  
Blacksburg, VA, USA

*for contributions to wideband signal processing in communications and geolocation*

Linda Bushnell  
University of Washington  
Seattle, WA, USA

*for contributions to networked control systems*

## 2017 Newly Elevated Fellows

Alper Buyuktosunoglu  
IBM T.J. Watson Research Center  
Yorktown Heights, NY, USA

*for contributions to adaptive micro-architectures and robust power management*

Raymond Byrne  
Sandia National Laboratories  
Albuquerque, NM, USA

*for contributions to miniature robotics and grid integration of energy storage*

Zi-Xing Cai  
Central South University  
Hunan, China

*for contributions to evolutionary optimization and intelligent robotics*

Andrea Caiti  
University of Pisa- Largo  
Pisa, Italy

*for contributions to geo-acoustic inversion and autonomous underwater vehicles*

Yu Cao  
Arizona State University  
Tempe, AZ, USA

*for development of predictive technology models for reliable circuit and system integration*

Franck Cappello  
Argonne National Laboratory  
Lemont, IL, USA

*for contributions to high-performance computing, fault tolerance, and grid-based computing*

Michael Carey  
University of California, Irvine  
Irvine, CA, USA

*for contributions to design and engineering of high-performance and concurrent database systems*

## 2017 Newly Elevated Fellows

Luca Carloni  
Columbia University  
New York, NY, USA

*for contributions to system-on-chip design automation and latency-insensitive design*

Jose Carmena  
University of California, Berkeley  
Berkeley, CA, USA

*for contributions to the neural basis of motor skill learning and neuroprosthetic systems*

Edward Chang  
Stanford Info Lab-Stanford University  
Stanford, CA, USA

*for contributions to scalable machine learning*

Edoardo Charbon  
Delft University of Technology  
Delft, Netherlands

*for contributions to solid-state single photon avalanche detectors and their applications in imaging*

Lap-Pui Chau  
Nanyang Technological University  
Singapore, Singapore

*for contributions to fast computation algorithms for visual signal processing*

Yan Chen  
Northwestern University  
Evanston, IL, USA

*for contributions to design, measurement, and security of networking systems*

Gordon Cheng  
Technische Universitat Munchen  
Munich, Germany

*for contributions in humanoid robotic systems and neurorobotics*

## 2017 Newly Elevated Fellows

Graziano Chesi  
The University of Hong Kong  
Hong Kong, China

*for contributions to control of nonlinear and multi-dimensional systems*

Wei-Ting Chien  
SMIC-Semiconductor Mfg. Int'l Corp.  
Shanghai, China

*for leadership in reliability management*

Kiyoung Choi  
Seoul National University  
Seoul, Korea

*for contribution to low-power, real-time, and reconfigurable systems*

Israel Cidon  
Technion – Israel Institute of Technology  
Haifa, Israel

*for contributions to high-speed packet networks, network-on-chip and wide area file systems*

Douglas Cochran  
Arizona State University  
Tempe, AZ, USA

*for contributions to multi-channel coherence in radar, sonar, and spectrum sensing*

Christopher Cole  
Finisar Corporation  
Sunnyvale, CA, USA

*for contributions to 10G, 40G, and 100G Optical Ethernet and OTN interfaces*

Gerald Cooray  
Karolinska University Hospital, Stockholm  
Stockholm, Sweden

*for contributions to understanding of the physics of lightning and lightning protection*

## 2017 Newly Elevated Fellows

Sorin Cotofana  
Delft University of Technology  
Delft, Netherlands

*for contributions to nanocomputing architectures and paradigms*

Robert Cunningham  
MIT Lincoln Laboratory  
Lexington, MA, USA

*for leadership in computer security*

Huaiyu Dai  
North Carolina State University  
Raleigh, NC, USA

*for contributions to MIMO communications and wireless security*

Ricardo De Queiroz  
Universidade de Brasilia  
Brasilia, Brazil

*for contributions to image and video signal enhancement and compression*

William Deal  
Northrop Grumman Corporation  
Redondo Beach, CA, USA

*for contributions to solid state submillimeter wave and Terahertz amplifiers*

Jing Deng  
University of North Carolina, Greensboro  
Greensboro, NC, USA

*for development and optimization of wireless security and networking protocols*

Tamal Dey  
Ohio State University  
Columbus, OH, USA

*for contributions to geometric computing*

## 2017 Newly Elevated Fellows

Jose Dias  
Instituto Superior Tecnico  
Lisbon, Portugal

*for contributions to imaging inverse problems in remote sensing*

William Dickerson  
Arbiter Systems, Inc.  
Paso Robles, CA, USA

*for leadership in precision clock and synchrophasor technologies*

Danny Dolev  
Hebrew University of Jerusalem  
Jerusalem, Israel

*for development of consistent, robust, and efficient distributed computing and storage*

Xinzhou Dong  
Tsinghua University, China  
Beijing, China

*for contributions to traveling wave-based transmission line protection and fault location*

Zhaoyang Dong  
The University of Sydney  
Sydney, NSW, Australia

*for contributions to development of computational methods for power system stability and planning*

Dov Dori  
Massachusetts Institute of Technology  
Cambridge, MA, USA

*for contributions to model-based systems engineering and document analysis recognition*

Frederick Douglass  
Dell EMC Corporation  
Princeton, NJ, USA

*for contributions to computer systems resource utilization and efficiency*

## 2017 Newly Elevated Fellows

Pier Luigi Dragotti  
Imperial College  
London, UK

*for contributions to sparse signal representation and sampling theory*

Falko Dressler  
University of Paderborn  
Paderborn, Germany

*for contributions to adaptive and self-organizing communication protocols in sensor and vehicular networks*

Guang Duan  
Harbin Institute of Technology  
Harbin, Heilongjiang, China

*for contributions to parametric control system design and applications*

Sandhya Dwarkadas  
University of Rochester  
Rochester, NY, USA

*for contributions to shared memory and reconfigurability*

Janaka Ekanayake  
University of Peradeniya  
Peradeniya, Sri Lanka

*for contributions to education in renewable energy integration and smart grid*

Eylem Ekici  
The Ohio State University  
Columbus, OH, USA

*for contributions to algorithms, protocols, and architectures of multi-hop wireless networks*

Terry Ericsen  
Ericson Innovations LLC  
Annapolis, MD, USA

*for leadership in power electronics*

## 2017 Newly Elevated Fellows

Pablo Estevez  
University of Chile  
Santiago, Chile

*for contributions to feature selection and visualization of large data sets*

Maria Pia Fanti  
Politecnico di Bari  
Bari, Italy

*for contributions to modeling and control of discrete event systems*

Joseph E. Ford  
University of California, San Diego  
La Jolla, CA, USA

*for contributions to free space optical imaging and communication technologies*

Gianfranco Fornaro  
Istituto per il Rilevamento Elettromagnetico Dell'Ambiente  
Naples, Italy

*for contributions to SAR processing in differential interferometry and tomography*

James Fowler  
Mississippi State University  
Mississippi State, MS, USA

*for contributions to lossy source coding and dimensionality reduction of multidimensional data*

Edward Fox  
Virginia Tech  
Blacksburg, VA, USA

*for leadership in digital libraries and information retrieval*

Michael Gard  
The Charles Machine Works  
Perry, OK, USA

*for contributions to instrumentation-and-measurement technology for petroleum exploration, computed tomography, and underground construction*

## 2017 Newly Elevated Fellows

Minos Garofalakis  
Technical University of Crete  
Chania, Greece

*for contributions to data streaming analytics*

Michael Gastpar  
Ecole Polytechnique Federale de Lausanne  
Lausanne, Switzerland

*for contributions to network information theory*

Alessandro Giua  
Aix-Marseille Univ and University of Cagliari  
Marseille, France and Cagliari, Italy

*for contributions to discrete event and hybrid systems*

Debatosh Guha  
University of Calcutta  
Kolkata, India

*for contributions to microstrip and wideband dielectric resonator antennas*

Bhuvaneswari Gurumoorthy  
Indian Institute of Technology Delhi  
New Delhi, India

*for contributions to design and development of enhanced power quality converters*

Soonhoi Ha  
Seoul National University  
Seoul, Korea

*for contributions to hardware/software codesign*

Saman Halgamuge  
University of Melbourne  
Victoria, Australia

*for contributions to computational intelligence in bioinformatics and mechatronics*

## 2017 Newly Elevated Fellows

Peter Hancock  
University of Central Florida  
Orlando, FL, USA

*for contributions to adaptive human-systems engineering*

Uwe Hanebeck  
Karlsruhe Institute of Technology, Germany  
Karlsruhe, Germany

*for contributions to nonlinear estimation and control*

Stephen Hanly  
Macquarie University  
Sydney, NSW, Australia

*for contributions to capacity analysis and optimization of wireless communication networks*

Lennart Harnefors  
ABB Corporate Research  
Vasteras, Sweden

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

Hossam Hassanein  
Queens University  
Kingston, ON, Canada

*for contributions to protocols, architectures and analysis of multi-hop wireless networks*

Masahito Hayashi  
Nagoya University  
Nagoya, Japan

*for contributions to Shannon theory, information-theoretic security, and quantum information theory*

Payam Heydari  
University of California, Irvine  
Irvine, CA, USA

*for contributions to silicon-based millimeter-wave integrated circuits and systems*

## 2017 Newly Elevated Fellows

Laura Heyderman  
Paul Scherrer Institute  
Villigen, Switzerland

*for contributions to nanoimprint lithography and nanostructured magnetic systems and devices*

Hideto Hidaka  
Renesas Electronics Corporation  
Tokyo, Japan

*for leadership in high-density memory technologies for automotive applications*

Christopher Hierold  
Swiss Federal Institute of Technology  
Zurich, Switzerland

*for contributions to microelectromechanical sensors and microthermoelectric energy harvesting*

Akimasa Hirata  
Nagoya Institute of Technology  
Nagoya, Japan

*for contributions to safety assessment and standardization of human exposure to electromagnetic fields*

Julia Hirschberg  
Columbia University  
New York, NY, USA

*for contributions to text-to-speech synthesis and spoken language understanding*

Wing C. Daniel Ho  
City University of Hong Kong  
Kowloon, Hong Kong

*for contributions to stability and control for stochastic systems*

YoSung Ho  
Gwangju Institute of Science & Technology  
Gwangju, Korea

*for contribution to video coding and 3D image processing*

## 2017 Newly Elevated Fellows

Yiguang Hong  
Chinese Academy of Science, Beijing  
Beijing, China

*for contributions to nonsmooth control and distributed multi-agent control*

Hugues Hoppe  
Microsoft Research  
Redmond, WA, USA

*for contributions to surface modeling and large-scale image processing*

Mahbub Hoque  
Communications-Electronics Research Development & Engineering Center  
Bel Air, MD, USA

*for leadership in developing innovative antennas and advanced tactical communication technologies*

Jiang Hsieh  
GE Medical Systems  
Milwaukee, WI, USA

*for contributions to X-ray computed tomography for clinical applications*

Ru Huang  
Peking University  
Beijing, China

*for contributions to multi-gate silicon nanowire transistor technology*

Tian-Wei Huang  
National Taiwan University  
Taipei, Taiwan

*for contributions to design and development of millimeter-wave CMOS RFICs*

Zhenyu Huang  
Pacific Northwest National Lab  
Richland, WA, USA

*for contributions to dynamic analysis and high performance computing in power systems*

## 2017 Newly Elevated Fellows

Laszlo Huber  
Delta Products Corporation  
Research Triangle Park, NC, USA

*for contributions to ac-dc power converters for portable electronics equipment*

Pablo Iglesias  
Johns Hopkins University  
Baltimore, MD, USA

*for contributions to control theory and systems biology*

Michael Isnardi  
Sarnoff Corporation  
Princeton, NJ, USA

*for contributions to compliance testing and vision-based video compression technologies*

Kenji Itoh  
Kanazawa Institute of Technology  
Nonoichi, Ishikawa, Japan

*for contributions to microwave harmonic mixers and applications to mobile terminal devices*

Chia-Hong Jan  
Intel Corporation  
Portland, OR, USA

*for leadership in developing low power logic technologies for System-on-Chip*

Juri Jatskevich  
University of British Columbia  
Vancouver, BC, Canada

*for contributions to modeling of electric machines and switching converters*

Deog-Kyoon Jeong  
Seoul National University  
Seoul, Korea

*for development of Digital Video Interface and High Definition Multimedia Interface standards*

## 2017 Newly Elevated Fellows

Quanxi Jia  
University of Buffalo  
Buffalo, NY, USA

*for contributions to coated superconductors and metal-oxide thin films for electronic applications*

Hongrui Jiang  
University of Wisconsin, Madison  
Madison, WI, USA

*for contributions to materials and micro-scale optical tools for medical imaging*

Jin Jiang  
University of Western Ontario  
London, ON, Canada

*for contributions to methodology, design, and evaluation of engineering systems safety*

Ronghong Jin  
Shanghai Jiao Tong University  
Shanghai, China

*for development of high efficiency planar antenna arrays and miniaturized antennas for wireless systems*

Yucheun Jou  
MediaTek Inc.  
San Jose, CA, USA

*for leadership in digital cellular systems and smart mobile devices*

Paul Juodawlkis  
MIT Lincoln Laboratory  
Lexington, MA, USA

*for contributions to optically sampled converters and waveguide amplifiers*

Kenichi Kagoshima  
Ibaraki University  
Ibaraki Prefecture, Japan

*for contributions to antennas for satellite communication and mobile wireless access systems*

## 2017 Newly Elevated Fellows

Chongqing Kang  
Tsinghua University  
Beijing, China

*for contributions to power system operation and planning in uncertain environments*

Mark David Kankam  
NASA Glenn Research Center  
Cleveland, OH, USA

*for contributions to space and terrestrial power systems control*

Hironori Kasahara  
Waseda University  
Tokyo, Japan

*for contributions to multicore architectures and power reducing parallelizing compilers*

Jordan Katine  
Hitachi Gst Research  
Mountain View, CA, USA

*for contributions to nanoscale magnetic device design, fabrication, and characterization*

Tatsuya Kawahara  
Kyoto University  
Kyoto, Japan

*for contributions to speech recognition and understanding*

Amir Khandani  
University of Waterloo  
Waterloo, ON, Canada

*for contributions to resource allocation and interference management in network information theory*

Richard King  
Arizona State University  
Tempe, AZ, USA

*for contributions to high-performance space and terrestrial photovoltaics technology*

## 2017 Newly Elevated Fellows

Hulya Kirkici  
Auburn University  
Auburn, AL, USA

*for contributions to high frequency, high field dielectric breakdown and electrical insulation for space and aerospace power systems*

Powsiri Klinkhachorn  
West Virginia University  
Morgantown, WV, USA

*for contributions to engineering education through international technical competitions*

Takao Kobayashi  
Tokyo Institute of Technology  
Yokohama, Japan

*for contributions to expressive speech synthesis based on a statistical parametric approach*

Steven Koester  
University of Minnesota  
Minneapolis, MN, USA

*for contributions to group-IV electronic and photonic devices*

Agnieszka Konczykowska  
Alcatel-Lucent Bell Labs, Thales Research  
Palaiseau Cedex, France

*for contributions to development of very high-speed circuits*

Witold Krzymien  
University of Alberta  
Edmonton, AB, Canada

*for contributions to radio resource management for cellular systems and networks*

James Kwok  
Hong Kong University of Science & Technology  
Clearwater Bay, Hong Kong

*for contributions to computational algorithms for kernel methods*

## 2017 Newly Elevated Fellows

K. Kyriakopoulos  
National Technical University of Athens  
Athens, Greece

*for contributions to robot motion planning and control of multi-robot systems*

James Lambert  
University of Virginia  
Charlottesville, VA, USA

*for contributions to risk analysis and systems engineering*

Alvin Lebeck  
Duke University  
Durham, NC, USA

*for contributions to memory hierarchies and energy-efficient and parallel computing*

Gwo-Bin Lee  
National Tsing Hua University  
Hsinchu, Taiwan

*for contributions to micro- and nano-fluidic technologies for biomedical applications*

Hsien-Hsin Lee  
Taiwan Semiconductor Manufacturing Company Ltd.  
Hsinchu, Taiwan

*for contributions to 3D integrated circuits and computer architecture*

Kuen-Jong Lee  
National Cheng-Kung University  
Tainan, Taiwan

*for contributions to low-cost testing of digital VLSI circuits*

Ning-Cheng Lee  
Indium Corp. of America  
Clinton, NY, USA

*for leadership in Surface Mount Technology and interconnect materials*

## 2017 Newly Elevated Fellows

Sang Bin Lee  
Korea University  
Seoul, Korea

*for contributions to off-line testing and on-line condition monitoring for ac electric machines*

Bengt Lennartson  
Chalmers University of Technology  
Gothenburg, Sweden

*for contributions to hybrid and discrete event systems for automation and sustainable production*

Jose Leon  
Universidad de Sevilla  
Seville, Spain

*for contributions to high-power electronic converters*

Fangxing Li  
University of Tennessee  
Knoxville, TN, USA

*for contributions to locational marginal price calculation*

Hang Li  
Huawei Technologies  
Sha Tin, Hong Kong

*for contributions to machine learning for information retrieval and natural language processing*

Jingshan Li  
University of Wisconsin, Madison  
Madison, WI, USA

*for contributions to manufacturing system automation*

Li Li  
Tsinghua University  
Beijing, China

*for contributions to intelligent transportation systems and vehicles*

## 2017 Newly Elevated Fellows

Xin Li  
Carnegie Mellon University  
Pittsburgh, PA, USA

*for contributions to modeling, analysis, and optimization of variability of integrated circuits and systems*

Xin Li  
West Virginia University  
Morgantown, WV, USA

*for contributions to image coding, restoration, and interpolation*

Xiuling Li  
University of Illinois  
Champaign, IL, USA

*for contributions to semiconductor nanomaterials for electronic and photonic applications*

Yuanqing Li  
South China University of Technology  
Guangzhou, China

*for contributions to brain signal analysis and brain computer interfaces*

Qilian Liang  
University of Texas, Arlington  
Arlington, TX, USA

*for contributions to interval type-2 fuzzy logic systems*

Donald Y. Lie  
Texas Tech University  
Lubbock, TX, USA

*for contributions to high linearity and high efficiency silicon RF power amplifiers for broadband wireless applications*

Teng-Joon Lim  
National University of Singapore  
Singapore, Singapore

*for contributions to statistical signal processing in wireless communications*

## 2017 Newly Elevated Fellows

Faa-Jeng Lin  
National Central University  
Taoyuan City, Taiwan

*for contributions to intelligent control systems for motor drives and motion control*

Phone Lin  
National Taiwan University  
Taipei, Taiwan

*for contributions to resource management and service development for mobile networks*

Xiaodong Lin  
University of Ontario Institute of Technology- Canada  
Waterloo, ON, Canada

*for contributions in secure and privacy-preserving vehicular communications*

Xiaojun Lin  
Purdue University  
West Lafayette, IN, USA

*for contributions to scheduling and control of wireless networks*

Frank Liu  
IBM Research - Austin  
Austin, TX, USA

*for contributions to design for manufacturability of VLSI circuits*

Jiangchuan Liu  
Simon Fraser University  
Burnaby, BC, Canada

*for contributions to multimedia communications and content distribution over the Internet*

Tieyan Liu  
Microsoft Research Asia  
Beijing, China

*for contributions to machine learning for web search and online advertising*

## 2017 Newly Elevated Fellows

Wentai Liu  
University of California, Los Angeles  
Los Angeles, CA, USA

*for contributions to electronically-aided neural prosthetic devices*

Xiang Liu  
Huawei USA  
Bridgewater, NJ, USA

*for contributions to broadband optical fiber communication systems and networks*

Yong Liu  
New York University  
Brooklyn, NY, USA

*for contributions to multimedia networking*

Gabriel Loh  
Advanced Micro Devices, Inc.  
Bellevue, WA, USA

*for contributions to high-performance die-stacked computer architectures*

David Lowther  
McGill University  
Montreal, QC, Canada

*for contributions to, and industrial applications of computer aided design in electromagnetics*

David Luebke  
NVIDIA Corporation  
Charlottesville, VA, USA

*for contributions to GPU computing and computer graphics*

Robert Lutwak  
DARPA- Defense Advanced Research Projects Agency  
Arlington, VA, USA

*for technical leadership in research, development and commercialization of miniature atomic frequency standards and clocks*

## 2017 Newly Elevated Fellows

Cyril Luxey  
IUT Nice Côte d'Azur  
Nice, France

*for the development of small antennas, multi-antenna system integration, and high performance mm-wave systems*

Joseph Lyles  
Oak Ridge National Labs  
Oak Ridge, TN, USA

*for contributions in local network technology, Internet measurement, and research cyberinfrastructure*

Wing-Kin Ma  
The Chinese University of Hong Kong  
Sha Tin, Hong Kong

*for contributions to optimization in signal processing and communications*

Enrico Magli  
Politecnico di Torino  
Milano, Italy

*for contributions to compression and communication of remotely sensed imagery*

Robert Mahony  
The Australian National University  
Canberra, ACT, Australia

*for contributions to control aspects of aerial robotics*

Sara Majetich  
Carnegie Mellon University  
Pittsburgh, PA, USA

*for contributions to understanding of magnetic nanoparticles*

Lorenzo Marconi  
Dei-University of Bologna  
Bologna, Italy

*for contributions to feedback design of nonlinear systems and unmanned aerial vehicles*

## 2017 Newly Elevated Fellows

Marta Martinez-Vazquez  
IMST GmbH  
Kamp-Lintfort, Germany

*for leadership in integrated signal-aware technologies for antennas and global navigation satellite system arrays*

Theresa Mayer  
Virginia Tech  
Blacksburg, VA, USA

*for contributions to nanomaterials integration and directed assembly*

Thierry Meynard  
Centre National de la Recherche Scientifique  
Toulouse, France

*for contributions to multilevel power converters*

Maurizio Migliaccio  
Università di Napoli Parthenope  
Naples, Italy

*for contributions to marine and maritime polarimetric synthetic aperture radar*

Jose del R Millan  
Ecole Polytechnique Federale de Lausanne  
Geneva, Switzerland

*for contributions to brain-controlled robots*

Stephen Milton  
Colorado State University  
Fort Collins, CO, USA

*for contributions to free electron lasers*

Pitu Mirchandani  
Arizona State University  
Tempe, AZ, USA

*for contributions to stochastic dynamic networked systems in intelligent transportation and production systems*

## 2017 Newly Elevated Fellows

Aleksandra Mojsilovic  
IBM T.J.Watson Research Center  
Yorktown Heights, NY, USA

*for contributions to signal processing for image analysis, data mining, and business analytics*

JeanMichel Muller  
Ecole Normale Supérieure de Lyon  
Lyon, France

*for contributions to theory and applications of computer arithmetic*

Srikantan Nagarajan  
Biomagnetic Imaging Lab  
San Francisco, CA, USA

*for contributions to neural engineering and biomagnetic brain imaging*

Junichi Nakamura  
Brillnics Japan Inc.  
Tokyo, Japan

*for leadership in CMOS image sensors*

Arumugam Nallanathan  
Kings College London  
London, UK

*for contributions to cooperative communications and cognitive radio networks*

Shu Namiki  
National Institute of Advanced Industrial Science and Technology (AIST)  
Tsukuba, Ibaraki, Japan

*for contributions to optical amplification*

Panos Nasiopoulos  
University of British Columbia  
Vancouver, BC, Canada

*for leadership in DVD authoring and digital multimedia technologies*

## 2017 Newly Elevated Fellows

Eduardo Nebot  
University of Sydney  
Sydney, NSW, Australia

*for contributions to robotics and applications in vehicle navigation and mining*

Borivoje Nikolic  
University of California, Berkeley  
Berkeley, CA, USA

*for contributions to energy-efficient design of digital and mixed-signal circuits*

Brett Ninness  
University of Newcastle  
Newcastle, NSW, Australia

*for contributions to computational methods in system identification*

Akihiro Nitayama  
Tohoku University  
Sendai, Japan

*for leadership in 3-dimensional NAND Flash memory technology development*

Dusit Niyato  
Nanyang Technological University  
Singapore, Singapore

*for contributions to resource allocation in cognitive radio and cellular wireless networks*

Daniel Oates  
MIT Lincoln Laboratory  
Lexington, MA, USA

*for contributions to high-temperature superconductors and applications to RF receiver technology*

Bryan Oliver  
Sandia National Laboratories  
Albuquerque, NM, USA

*for contributions to the theory and simulation of intense particle beams and plasmas*

## 2017 Newly Elevated Fellows

Nuria Oliver  
Telefonica I&D  
Barcelona, Spain

*for contributions in probabilistic multi-modal models of human behavior and development of intelligent and interactive systems*

Giuseppe Oriolo  
Univ di Roma La Sapienza  
Roma, Italy

*for contributions to motion planning and control methods in complex robotic systems*

Rafail Ostrovsky  
University of California, Los Angeles  
Los Angeles, CA, USA

*for contributions to cryptography*

Aydogan Ozcan  
University of California, Los Angeles  
Los Angeles, CA, USA

*for contributions to biophotonics, computational imaging, and sensing for telemedicine and global health*

Phillip Pace  
Naval Postgraduate School  
Monterey, CA, USA

*for leadership in radar signal processing, receiver design, and direction finding architectures*

Kallianpur Padiyar  
Indian Institute of Science, Bangalore  
Bangalore, India

*for contributions to education in power systems and application of power electronics*

Tomas Palacios  
Massachusetts Institute of Technology  
Cambridge, MA, USA

*for contributions to gallium nitride electron devices and two-dimensional materials*

## 2017 Newly Elevated Fellows

Robert Palmer  
University of Oklahoma  
Norman, OK, USA

*for contributions to atmospheric and meteorological radar science*

Haesun Park  
Georgia Institute of Technology  
Atlanta, GA, USA

*for contributions to large-scale data and visual analytics*

Jung-Min Park  
Virginia Tech  
Blacksburg, VA, USA

*for contributions to dynamic spectrum sharing, cognitive radio networks, and security issues*

Lorenzo Pavesi  
University of Trento  
Trento, Italy

*for contributions to silicon photonics*

Li-Shiuan Peh  
National University of Singapore  
Singapore, Singapore

*for contributions to the architecture and design automation of networks-on-chip*

Shaomin Sharon Peng  
Harman International  
Stamford, CT, USA

*for contributions to scalable video decoding methods in MPEG2 standard*

Salvatore Pennisi  
University of Catania  
Catania, Italy

*for contributions to multistage CMOS operational amplifiers*

## 2017 Newly Elevated Fellows

Eric Perfecto  
GlobalFoundries  
Hopewell Junction, NY, USA

*for the development of Pb-free, flip chip solder interconnect and advancements to multi-level Cu-polyimide packages*

Dimitrios Peroulis  
Purdue University  
West Lafayette, IN, USA

*for contributions to MEMS-based tunable filters*

Kevin Peterson  
P2S Engineering Inc.  
Long Beach, CA, USA

*for leadership in global standardization of commercial shore-to-ship power systems*

Kristin Pettersen  
Norwegian University of Science & Technology  
Trondheim, Norway

*for contributions to control of marine vessels and snake robots*

Josep Pou  
Nanyang Technical University  
Singapore, Singapore

*for contributions to multilevel converters and renewable energy conversion*

Lili Qiu  
University of Texas  
Austin, TX, USA

*for contributions to wireless network management*

Vesna Radisic  
Northrop Grumman Corporation  
Manhattan Beach, CA, USA

*for contributions to millimeter- and submillimeter-wave sources, amplifiers, and monolithic integrated circuits*

## 2017 Newly Elevated Fellows

Khwaja Rahman  
General Motors LLC  
Detroit, MI, USA

*for contributions to permanent magnet electric machines for electrified vehicles*

Bhiksha Raj  
Carnegie Mellon University  
Pittsburgh, PA, USA

*for contributions to speech recognition*

Bhuvana Ramabhadran  
IBM Research Center  
Mount Kisco, NY, USA

*for contributions to speech recognition and language processing*

Ravi Ramamoorthi  
University of California, San Diego  
La Jolla, CA, USA

*for contributions to foundations of computer graphics and computer vision*

Yun-Jiang Rao  
University of Electronic Science & Technology of China  
Chengdu, Sichuan, China

*for contributions to optical fiber sensors and applications*

Ramgopal Raovalipe  
Indian Institute of Technology, Powai  
Powai, Mumbai, India

*for contributions to CMOS System-on-Chip technologies*

William Regli  
Drexel University  
Philadelphia, PA, USA

*for contributions to 3D search, design repositories and intelligent manufacturing*

## 2017 Newly Elevated Fellows

Reza Rejaie  
University of Oregon  
Eugene, OR, USA

*for contributions to multimedia and peer-to-peer networking, and Internet measurement*

Walden Rhines  
Mentor Graphics Corporation  
Wilsonville, OR, USA

*for leadership and technology innovation in integrated circuit design and automation*

Charles Rhoads  
Raytheon Company  
McKinney, TX, USA

*for leadership in low cost and high performance array antenna technologies*

Michael Rice  
Brigham Young University  
Provo, UT, USA

*for contributions to communication waveforms, detection algorithms, and channel models for aeronautical telemetry*

Gael Richard  
TELECOM ParisTech  
Paris, France

*for contributions to analysis, indexing and decomposition of audio and music signals*

Frank Robey  
MIT Lincoln Laboratory  
Lexington, MA, USA

*for leadership in development of advanced radar systems*

Gregg Rothermel  
University of Nebraska-Lincoln  
Lincoln, NE, USA

*for contributions to software testing and end-user software engineering*

## 2017 Newly Elevated Fellows

Carlo Samori  
Politecnico di Milano  
Milano, Italy

*for contributions to design of integrated Voltage Controlled Oscillators and Phase-Locked Loops*

Seb Savory  
University of Cambridge  
Cambridge, UK

*for contributions to digital coherent transceivers for optical fiber communication*

Luca Schenato  
University of Padova  
Padova, Italy

*for contributions to networked and multi-agent control systems*

Bernt Schiele  
Max Planck Institute for Informatics  
Saarbrücken, Germany

*for contributions to large-scale object recognition, human detection and pose estimation*

Holger Schmidt  
University of California, Santa Cruz  
Santa Cruz, CA, USA

*for contributions to optofluidics and integrated photonics*

Michael Schulte  
Advanced Micro Devices, Inc.  
Austin, TX, USA

*for contributions to compute architectures*

Stanley Sclaroff  
Boston University  
Boston, MA, USA

*for contributions to computer vision, image retrieval, and gesture analysis*

## 2017 Newly Elevated Fellows

Behzad Shahraray  
AT & T Labs-Research  
Middletown, NJ, USA

*for leadership in content-based processing and retrieval of multimedia information*

Hamid Sharif  
University of Nebraska-Lincoln  
Lincoln, NE, USA

*for development of railroad wireless communication*

Zhongxiang Shen  
Nanyang Technological University  
Singapore, Singapore

*for contributions to 3D frequency selective structures and slot antennas*

Weiping Shi  
Texas A&M University  
College Station, TX, USA

*for contributions to modeling and design of VLSI interconnects*

Yang Shi  
University of Victoria  
Victoria, BC, Canada

*for contributions to networked and distributed control systems*

Toshihisa Shimizu  
Tokyo Metropolitan University  
Tokyo, Japan

*for development of reliable power converters for industrial and renewable energy applications*

Youngsoo Shin  
Korea Advanced Institute of Science & Technology  
Daejeon, Korea

*for contributions to design tools for low power, high speed VLSI circuits and systems*

## 2017 Newly Elevated Fellows

Shervin Shirmohammadi  
University of Ottawa  
Ottawa, ON, Canada

*for contributions to multimedia systems and network measurements*

Mark Shtaif  
Tel-Aviv University  
Tel Aviv, Israel

*for contributions to polarization phenomena and non-linear effects in fiber-optic communications*

Cristina Silvano  
Politecnico di Milano  
Milano, Italy

*for contributions to energy-efficient computer architectures*

Sri Niwas Singh  
Indian Institute of Technology Kanpur  
Kanpur, India

*for leadership and contributions to power engineering education*

Prasun Sinha  
Ohio State University  
Columbus, OH, USA

*for contributions to scheduling and resource allocation in wireless networks*

Veselin Skendzic  
Schweitzer Engineering Laboratories, Inc.  
King of Prussia, PA, USA

*for contributions to technologies and standardization in power system protection*

Roman Slowinski  
Poznan University of Technology  
Poznan, Poland

*for contributions to dominance-based rough set theory, robust ordinal regression and preference learning*

## 2017 Newly Elevated Fellows

Alan Smeaton  
Dublin City University  
Dublin, Ireland

*for contributions to multimedia information indexing and retrieval*

Carol Smidts  
Ohio State University  
Columbus, OH, USA

*for contributions to reliability analysis of high-assurance systems*

Alice Smith  
Auburn University  
Auburn, AL, USA

*for contributions to computational intelligence for complex systems*

Steven Smith  
Massachusetts Institute of Technology  
Lexington, MA, USA

*for contributions to statistical signal processing and applications to radar and sonar*

Olav Solgaard  
Stanford University  
Stanford, CA, USA

*for contributions to optical micro-electro-mechanical devices and systems for sensing, communications and displays*

Sushil Soonee  
POSCO, India- Power Sytem Operation Corporation Ltd.  
New Delhi, India

*for leadership in developing operational methods for power grid interconnection in India*

Leif Sörnmo  
Lund University  
Lund, Sweden

*for contributions to biomedical signal processing in cardiac applications*

## 2017 Newly Elevated Fellows

Ram Duvvuru Sriram  
National Institute of Standards & Technology  
Gaithersburg, MD, USA

*for leadership in developing computational tools for healthcare enterprises*

Anuj Srivastava  
Florida State University  
Tallahassee, FL, USA

*for contributions to differential geometric and statistical techniques in the analysis of shapes, curves and surfaces*

Yannis Stylianou  
University of Crete,  
Heraklion, Greece

*for contributions to speech analysis and communication*

Guaning Su  
Nanyang Technological University  
Singapore, Singapore

*for leadership in defense technology and management of educational institutions*

Sabine Susstrunk  
Ecole Polytechnique Federale de Lausanne  
Lausanne, Switzerland

*for contributions to computational imaging, color image processing, and color computer vision*

Eric Swanson  
Acacia Communications, Inc.  
Maynard, MA, USA

*for contributions to Optical Coherence Tomography and leadership in optical networking*

Paulo Tabuada  
University of California, Los Angeles  
Los Angeles, CA, USA

*for contributions to cyber-physical systems*

## 2017 Newly Elevated Fellows

Hong Tan  
Purdue University  
West Lafayette, IN, USA

*for contributions to wearable haptics*

Xiaobo Tan  
Michigan State University  
East Lansing, MI, USA

*for contributions to modeling and control of smart materials and underwater robots*

Luc Thevenaz  
EPFL Swiss Federal Institute of Technology  
Lausanne, Switzerland

*for contributions to Brillouin-based fiber-optic sensors*

Jianzhong Tong  
PJM Interconnection  
Audubon, PA, USA

*for contributions to real-time power system operations*

Vicent Torra  
University of Skövde  
Skövde, Sweden

*for contributions to fuzzy sets, decision under uncertainty, and data privacy*

Ching-Chih Tsai  
National Chung Hsing University  
Taichung, Taiwan

*for contributions in intelligent adaptive learning control for industrial systems and machinery*

Fredrik Tufvesson  
Lund University  
Lund, Sweden

*for contributions to measurement and modeling of wireless propagation channels*

## 2017 Newly Elevated Fellows

Lars Ulander  
Swedish Defence Research Agency  
Linköping, Sweden

*for advances in VHF- and UHF-band synthetic aperture radar*

Jaap van de Beek  
Luleå University of Technology, LTU  
Luleå, Sweden

*for contributions to orthogonal frequency division multiplexing*

A. Frank Van Der Stappen  
Utrecht University  
Utrecht, Netherlands

*for contributions to the algorithmic foundations of robotics and automation*

Nuno Vasconcelos  
University of California, San Diego  
La Jolla, CA, USA

*for contributions to computer vision, image processing, and multimedia*

Jeffrey Vetter  
Oak Ridge National Laboratory (ORNL)  
Oak Ridge, TN, USA

*for contributions to high performance computing*

Andrei Vladimirescu  
Berkeley Wireless Research Center  
Berkeley, CA, USA

*for contributions to the development and commercial adoption of SPICE circuit simulation*

Sorin Voinigescu  
University of Toronto  
Toronto, ON, Canada

*for contributions to silicon and silicon-germanium microwave and millimeter-wave devices and integrated circuits*

## 2017 Newly Elevated Fellows

Cheng-Xiang Wang  
Heriot-Watt University  
Edinburgh, UK

*for contributions to wireless channel modeling for vehicular networks*

Chonggang Wang  
InterDigital  
Conshohocken, PA, USA

*for contributions to Internet of Things enabling technologies*

Jiangzhou Wang  
University of Kent  
Canterbury, Kent, UK

*for contributions to multiple access and resource allocation in wireless mobile communications*

Jianyong Wang  
Tsinghua University  
Beijing, China

*for development of efficient data mining algorithms*

Wenping Wang  
University of Hong Kong  
Hong Kong, Hong Kong

*for contributions to computer graphics and solid modeling*

Wenye Wang  
North Carolina State University  
Raleigh, NC, USA

*for contributions to modeling and performance evaluation of wireless networks*

Xianbin Wang  
University of Western Ontario  
London, ON, Canada

*for contributions to OFDM systems and distributed transmission technologies*

## 2017 Newly Elevated Fellows

Zhen Wang  
University of British Columbia  
Vancouver, BC, Canada

*for contributions to statistical signal processing for multimedia security and brain data analytics*

Zihua Wang  
Tsinghua University  
Beijing, China

*for contributions to circuits and microsystems for medical applications*

Edson Watanabe  
COPPE, Federal University of Rio de Janeiro  
Rio de Janeiro, Brazil

*for contributions to the application of power electronics for power conditioning*

James Weiland  
University of Southern California  
Los Angeles, CA, USA

*for contributions to the design, development, and realization of retinal prostheses*

David Whalley  
Florida State University  
Tallahassee, FL, USA

*for contributions to architectural and compilation techniques to meet embedded system constraints*

Richard Wolski  
University of California, Santa Barbara  
Santa Barbara, CA, USA

*for contributions to high-performance, grid, and cloud computing*

Ying Wu  
Northwestern University  
Evanston, IL, USA

*for contributions to motion analysis and pattern discovery in computer vision*

## 2017 Newly Elevated Fellows

Dianguo Xu  
Harbin Institute of Technology  
Harbin, China

*for contribution to control of electrical drives and power electronic converters*

Alexandre Yakovlev  
Newcastle University  
Newcastle upon Tyne, UK

*for contributions to theory and design of asynchronous circuits*

Shuicheng Yan  
Qihoo/ 360 Company  
Beijing, China

*for contributions to subspace learning and visual classification*

Halim Yanikomeroglu  
Carleton University  
Ottawa, ON, Canada

*for contributions to wireless access architectures in cellular networks*

Zuo-Guang Ye  
Simon Fraser University  
Burnaby, BC, Canada

*for contributions to piezoelectric and ferroelectric materials for high-performance electromechanical transducers*

Mohammed Zaki  
Rensselaer Polytechnic Institute  
Troy, NY, USA

*for contributions to knowledge discovery and data mining*

Jun Zhang  
Sun Yat-Sen University  
Guangzhou, China

*for contributions to evolutionary computation and its applications*

## 2017 Newly Elevated Fellows

Lixian Zhang  
Harbin Institute of Technology  
Harbin, China

*for contributions to nondeterministic switched systems*

Qingfu Zhang  
City University of Hong Kong  
Hong Kong, China

*for contributions to multi-objective evolutionary computation methodologies*

Rui Zhang  
National University of Singapore  
Singapore, Singapore

*for contributions to cognitive radio and energy harvesting communications*

Xin Zhang  
Boston University  
Boston, MA, USA

*for contributions to microelectromechanical systems*

Qing-Chang Zhong  
Illinois Institute of Technology  
Chicago, IL, USA

*for contributions to power electronic systems control*

Ce Zhu  
University of Electronic Science & Technology  
Sichuan, China

*for contributions to video coding and communications*