

## 2016 Newly Elevated Fellows

David Abramson  
University of Queensland  
Queensland, Australia

*for contributions to software tools for high performance, parallel, and distributed computing*

Vassilios Agelidis  
University of New South Wales  
Sydney, NSW, Australia

*for contributions to power electronics, renewable energy conversion and integration with electricity grid*

Kiyoharu Aizawa  
University of Tokyo  
Tokyo, Japan

*for contributions to model-based coding and multimedia lifelogging*

Ozgur B. Akan  
Koc University  
Istanbul, Turkey

*for contributions to wireless sensor networks*

Alin Albu-Schaeffer  
Technical University Munich  
Oberpfaffenhofen-Wessling, Germany

*for contributions to compliant and lightweight robots*

## 2016 Newly Elevated Fellows

Massimo Alioto  
National University of Singapore  
Singapore, Singapore

*for contributions to energy-efficient VLSI circuits*

Alexandre P. Alves da Silva  
GE Global Research  
Rio de Janeiro, Brazil

*for contributions to dynamic security assessment and load forecasting in power systems*

Lorenzo Alvisi  
University of Texas at Austin  
Austin, TX, USA

*for contributions to reliable distributed systems*

Massoud Amin  
University of Minnesota  
Minneapolis, MN, USA

*for leadership in smart grids and security of critical infrastructures*

Plamen Angelov  
Lancaster University  
Lancaster, United Kingdom

*for contributions to neuro-fuzzy and autonomous learning systems*

Tatsuo Arai  
Osaka University  
Osaka, Japan

*for contributions to micro manipulators and sensors, and applications to cellular biology*

## 2016 Newly Elevated Fellows

Huseyin Arslan  
University of South Florida  
Tampa, FL, USA

*for contributions to spectrum sensing in cognitive radio networks*

David Atienza  
EPFL- École polytechnique fédérale de Lausanne  
Lausanne, Switzerland

*for contributions to design methods and tools for multiprocessor systems on chip*

Ronald Azuma  
Intel Laboratories  
Santa Clara, CA, USA

*for contributions to augmented reality*

Fan Bai  
General Motors Global R&D  
Detroit, MI, USA

*for contributions to vehicular networking and mobility modeling*

Christopher Baker  
Ohio State University  
Columbus, OH, USA

*for contributions to cognitive sensing in passive and diversity radars*

William Baldygo  
U.S. Air Force Research Laboratory  
Dayton, OH, USA

*for leadership in signal processing for radar systems*

## 2016 Newly Elevated Fellows

Sanghamitra Bandyopadhyay  
Indian Statistical Institute  
West Bengal, India

*for contributions to genetic algorithm based classification and clustering techniques*

Edward Baranoski  
Intelligence Advanced Research,  
Projects Activity (IARPA)  
McLean, VA, USA

*for leadership in knowledge-aided radar systems for indoor environments*

Kenneth Barner  
University of Delaware  
Newark, DE, USA

*for contributions in nonlinear signal processing*

Siegfried Bauer  
Johannes Kepler-University Linz  
Linz, Austria

*for contributions to the understanding and application of electroactive polymer dielectrics*

B. Wayne Bequette  
Rensselaer Poly Institute  
Troy, NY, USA

*for contributions to design and control of chemical and biomedical systems*

## 2016 Newly Elevated Fellows

Karl Berggren  
Massachusetts Institute of Technology  
Cambridge, MA, USA

*for contributions to nanofabrication and nanomanufacturing in the sub-10 nm regime*

Shannon Blunt  
University of Kansas  
Lawrence, KS, USA

*for contributions to radar waveform diversity and design*

Kwabena Boahen  
Stanford University  
Stanford, CA, USA

*for contributions to system design for neuromorphic chip*

Francesco Borrelli  
University of California - Berkeley  
Berkeley, CA, USA

*for contributions to the theory and application of model predictive control*

Laura Bottomley  
North Carolina State University  
Raleigh, NC, USA

*for leadership in increasing student interest in STEM education*

Brian Brandt  
Maxim Integrated Products  
San Jose, CA, USA

*for leadership in data converters and mixed-signal circuits*

## 2016 Newly Elevated Fellows

Michael Branicky  
University of Kansas  
Lawrence, KS, USA

*for contributions to switched and hybrid control systems*

Henning Braunisch  
Intel Corporation  
Phoenix, AZ, USA

*for contributions to high-bandwidth microprocessor packaging*

David Brooks  
Harvard University  
Cambridge, MA, USA

*for contributions to power-efficient and resilient computer system design*

Juergen Brugger  
EPFL - École polytechnique fédérale de Lausanne  
Lausanne, Switzerland

*for contributions to micro and nano manufacturing technology*

Tracy Camp  
Colorado School of Mines  
Golden, CO, USA

*for contributions to wireless networking*

Eugenio Cantatore  
Eindhoven University of Technology  
Eindhoven, Netherlands

*for contributions to the design of circuits with organic thin film transistors*

## 2016 Newly Elevated Fellows

Carlos Canudas de Wit  
CNRS-GIPSA-Lab  
Grenoble, France

*for contributions to modeling and control of mechanical, robotic, and networked systems*

Jinde Cao  
Southeast University  
Nanjing, China

*for contributions to the analysis of neural networks*

Bruce Carlsten  
Los Alamos National Laboratory  
Los Alamos, NM, USA

*for contributions to high-brightness electron beams and vacuum electron devices*

Sandro Carrara  
Swiss Federal Institute of Technology  
Lausanne, Switzerland

*for contributions to design of nanoscale biological CMOS sensors*

Umit Catalyurek  
Ohio State University  
Columbus, OH, USA

*for contributions to combinatorial scientific computing and parallel computing*

Yiu Tong Chan  
Royal Military College  
Kingston, ON, Canada

*for development of efficient localization and tracking algorithms*

Tony Chan  
Hong Kong University of Science & Technology  
Clearwater Bay, Hong Kong, China

*for contributions to computational models and algorithms for image processing*

## 2016 Newly Elevated Fellows

Chorng-Ping Chang  
Applied Materials, Inc.  
Santa Clara, CA, USA

*for contributions to replacement gate and shallow trench isolation for CMOS technology*

Jie Chen  
University of Alberta, Canada  
Edmonton, AB, Canada

*for contributions to low-power and biomedical ultrasound circuits and devices*

Xilin Chen  
Institute of Computing Technology  
Beijing, China

*for contributions to machine vision for facial image analysis and sign language recognition*

Chun-Hung Chen  
George Mason University  
Fairfax, VA, USA

*for contributions to simulation-based optimization of automation systems*

Shigang Chen  
University of Florida  
Gainesville, FL, USA

*for contributions to quality of service provisioning and policy-based security management in computer networks*

Degang Chen  
Iowa State University  
Ames, IA, USA

*for contributions to testing of analog and mixed-signal integrated circuits*



## 2016 Newly Elevated Fellows

Shu-Ching Chen  
Florida International University  
Miami, FL, USA

*for contributions to multimedia data and disaster information management*

Gyu Hyeong Cho  
KAIST- Korea Advanced Institute of Science and Technology  
Daejeon, Korea

*for contributions to power management circuit design*

Henry Chung  
City University of Hong Kong  
Kowloon Tong, Hong Kong, China

*for contributions to power electronic converters for lighting*

C. Y. Chung  
University of Saskatchewan  
Saskatoon, SK, Canada

*for contributions to power system stability and control*

Wan Kyun Chung  
Pohang University of Science & Technology  
Pohang, Korea

*for developments in robust control theory for mechanical systems*

Terry Cisco  
Consultant  
Glendale, CA, USA

*for leadership in the development of airborne active array transmit and receive module technologies*

## 2016 Newly Elevated Fellows

George Clark  
Alabama Power Company  
Birmingham, AL, USA

*for contributions to distribution automation for power*

Armando Colombo  
Schneider Electric Automation GmbH  
Bayern, Germany

*for contributions to industrial cyber-physical systems*

Ian Craddock  
University of Bristol  
Bristol, United Kingdom

*for leadership in imaging for healthcare applications*

Lorrie Cranor  
Carnegie Mellon University  
Pittsburgh, PA, USA

*for contributions to privacy engineering*

Luiz Da Silva  
Trinity College Dublin  
Dublin, Ireland

*for contributions to cognitive networks and resource management for wireless networks*

Gilles Dambrine  
IEMN - Institute of Electronic, Microelectronic  
and Nanotechnology  
Lille, France

*for contributions to the modeling of small signal and noise characteristics in nanoscale high-frequency devices*

## 2016 Newly Elevated Fellows

Timothy Davis  
Texas A&M University  
College Station, TX, USA

*for contributions to sparse matrix algorithms and software*

Leila De Floriani  
University of Genova  
Genova, Italy

*for contributions to geometric modeling and visualization*

Robert Deng  
Singapore Management University  
Singapore, Singapore

*for contributions to security algorithms, protocols and systems*

Yixin Diao  
IBM T. J. Watson Research Center  
Yorktown Heights, NY, USA

*for contributions to modeling, optimization, and control of computing systems*

Maria-Gabriella Di Benedetto  
Sapienza University of Rome  
Rome, Italy

*for contributions to impulse-radio ultra wideband and cognitive networks for wireless communications*

Warren Dixon  
University of Florida  
Gainesville, FL, USA

*for contributions to adaptive control of uncertain nonlinear systems*

## 2016 Newly Elevated Fellows

Ananth Dodabalapur  
University of Texas at Austin  
Austin, TX, USA

*for contributions to organic electronic devices and circuits*

David Doman  
USAF Air Force Research Laboratory  
Rome, NY, USA

*for contributions to flight dynamics and control*

Ravindranath Droopad  
Texas State University  
San Marcos, TX, USA

*for contributions to epitaxial growth of advanced materials for RF and CMOS applications*

Frederic Dufaux  
Telecom ParisTech  
Paris, France

*for contributions to visual information processing and coding*

Schahram Dustdar  
Vienna University of Technology  
Vienna, Austria

*for contributions to elastic computing for cloud applications*

Michael Eineder  
TUM - Technische Universität München  
München, Germany

*for contributions to synthetic aperture radar image processing for geodesy*

## 2016 Newly Elevated Fellows

Georges El Fakhri  
Massachusetts General Hospital/  
Harvard Medical School  
Boston, MA, USA

*for contributions to biological imaging*

Danilo Erricolo  
University of Illinois  
Chicago, IL, USA

*for contributions to electromagnetic scattering and associated computational algorithms*

Karu Esselle  
Macquarie University  
Sydney, NSW, Australia

*for contributions to resonance-based antennas*

Giuseppe Fabrizio  
Defence Science & Technology Group  
Edinburgh, SA, Australia

*for contributions to adaptive array signal processing in over-the-horizon radar systems*

Jun Fan  
Missouri University of Science & Technology  
Rolla, MO, USA

*for contributions to power delivery networks in printed circuit designs*

Mukta Farooq  
IBM Corporation  
Hopewell Junction, NY, USA

*for contributions to 3D integration and interconnect technology*

## 2016 Newly Elevated Fellows

Patrick Fay  
University of Notre Dame  
Notre Dame, IN, USA

*for contributions to compound semiconductor tunneling and high-speed device technologies*

Faramarz Fekri  
Georgia Institute of Technology  
Atlanta, GA, USA

*for contributions to coding theory and its applications*

Leonard Feldman  
Rutgers University  
Piscataway, NJ, USA

*for contributions to semiconductor-dielectric interfaces for MOS technologies*

Claudia Felser  
Max-Planck-Institut für CPfS  
Gesellschaft, München, Germany

*for contributions to the design and chemical synthesis of new materials with multi-functional properties*

Gabor Fichtinger  
Queens University  
Kingston, ON, Canada

*for contributions to medical robotics and computer-assisted intervention*

Dinei Florencio  
Microsoft Research  
Redmond, WA, USA

*for contributions to statistical and signal processing approaches to adversarial and security problems*

## 2016 Newly Elevated Fellows

Thor Fossen  
Norwegian University of Science & Technology  
Trondheim, Norway

*for contributions to modelling and controlling of marine crafts*

F. Stuart Foster  
Sunnybrook & Women's College-  
Health Sciences Centre  
Toronto, ON, Canada

*for contributions to the development and commercialization of ultrasound technology*

Christina Fragouli  
University of California - Los Angeles  
Los Angeles, CA, USA

*for contributions to network coding*

Michael Franz  
University of California - Irvine  
Irvine, CA, USA

*for contributions to just-in-time compilation and to computer security through compiler-generated software diversity*

Patrick French  
TU Delft- Delft University of Technology  
Delft, Netherlands

*for contributions to micro-electromechanical devices and systems*

Jessica Fridrich  
Binghamton University- SUNY  
Binghamton, NY, USA

*for contributions to digital media forensics, steganography, and steganalysis*

## 2016 Newly Elevated Fellows

Masayuki Fujita  
Tokyo Institute of Technology  
Tokyo, Japan

*for contributions to passivity-based control in robotics and robust control*

Vincenzo Galdi  
University of Sannio  
Benevento, Italy

*for contributions to modeling the interaction between electromagnetic waves and complex materials*

Alan Gatherer  
Huawei  
Plano, TX, USA

*for contributions to systems-on-chip for 3G and 4G cellular systems*

Maryellen Giger  
University of Chicago - Radiology  
Chicago, IL, USA

*for contributions to computer-aided biomedical imaging and diagnosis*

Fernando Gomide  
University of Campinas  
Sao Paulo, Brazil

*for contributions to fuzzy systems*

Tibor Grasser  
Technische Universität Wien : TU Wien  
Vienna, Austria

*for contributions to modeling the reliability of semiconductor devices*



## 2016 Newly Elevated Fellows

Anthony Grbic  
University of Michigan  
Ann Arbor, MI, USA

*for contributions to the theory and design of electromagnetic metamaterials*

Anthony Guiseppi-Elie  
Clemson University  
Clemson, SC, USA

*for contributions to organic electronic materials in biotechnology and biomedicine*

Gerhard Hancke  
University of Pretoria  
Pretoria, South Africa

*for contributions to wireless sensor networks*

Edwin Hancock  
University of York  
N. Yorkshire, United Kingdom

*for contributions to pattern recognition and computer vision*

Alan Hanjalic  
TU Delft- Delft University of Technology  
Delft, Netherlands

*for contributions to multimedia information retrieval*

Tomohiro Hase  
Ryukoku University  
Shiga, Japan

*for contributions to embedded software for real-time applications*

## 2016 Newly Elevated Fellows

Dimitrios Hatzinakos  
University of Toronto  
Toronto, ON, Canada

*for contributions to signal processing techniques for communications, multimedia and biometrics*

Scott Hauck  
University of Washington  
Seattle, WA, USA

*for contributions to Field-Programmable Gate Array based systems*

Aaron Hawkins  
Brigham Young University  
Provo, UT, USA

*for contributions to optofluidics*

George Hayhoe  
Mercer University  
Macon, GA, USA

*for contributions to professional and technical communication*

Larry Heck  
Google  
Mountain View, CA, USA

*for leadership in application of machine learning to spoken and text language processing*

Maurice Heemels  
Eindhoven University of Technology  
Eindhoven, Netherlands

*for contributions to analysis and design of hybrid, networked, and event-triggered systems*

## 2016 Newly Elevated Fellows

Gernot Heiser  
University of New South Wales  
Sydney, NSW, Australia

*for contributions to security and safety of operating systems*

Michael Henderson  
ISO New England  
Springfield, MA, USA

*for contributions to the application of high-voltage DC and flexible AC transmission systems*

Mark Hersam  
Northwestern University  
Evanston, IL, USA

*for contributions to carbon nanomaterial processing methods and devices*

John Heywood  
University of Dublin  
Dublin, Ireland

*for contributions to engineering education research*

Mark Horenstein  
Boston University  
Boston, MA, USA

*for contributions to the modeling and measurements of electrostatics in industrial processes*

## 2016 Newly Elevated Fellows

Tzyy-Sheng Horng  
Nat'l Sun Yat-Sen University  
Kaohsiung, Taiwan

*for contributions to system-in-package modeling and design*

Yu Hu  
Purdue University  
West Lafayette, IN, USA

*for contributions to power modeling and energy management of mobile devices*

Xiaobo Hu  
University of Notre Dame  
Notre Dame, IN, USA

*for contributions to resource management for embedded systems*

Jiang Hu  
Texas A&M University  
College Station, TX, USA

*for contributions to gate, interconnect, and clock network optimization in VLSI circuits*

Xian-Sheng Hua  
Alibaba Group  
Hangzhou, China

*for contributions to multimedia content analysis and image search*

Tony Jun Huang  
Penn State University  
University Park, PA, USA

*for contributions to acousto-opto-fluidics, and nanoelectromechanical systems*

## 2016 Newly Elevated Fellows

Jianwei Huang  
Chinese University of Hong Kong  
Shatin, NT, Hong Kong

*for contributions to resource allocation in wireless systems*

Qiang Huang  
Beijing Institute of Technology  
Beijing, China

*for contributions to the design and control of biped robots*

Qing-An Huang  
Southeast University  
Nanjing, China

*for contributions to modeling and packaging of microsensors and microactuators*

Jiwu Huang  
Shenzhen University  
Shenzhen, China

*for contributions to multimedia data hiding and forensics*

Adrian Ionescu  
EPFL - École polytechnique fédérale de Lausanne  
Lausanne, Switzerland

*for contributions to the development of novel devices for low power applications*

Mohammad Islam  
Halla Mechatronics  
Bay City, MI, USA

*for development of electromagnetic sensors and actuators for automotive applications*

## 2016 Newly Elevated Fellows

Rabih Jabr  
American University of Beirut  
Beirut, Lebanon

*for application of robust optimization to power systems*

Yungtaek Jang  
Delta Products Corporation  
Fremont, CA, USA

*for contributions to efficiency optimization of ac-dc power supplies*

Dan Jiao  
Purdue University  
West Lafayette, IN, USA

*for contributions to computational electromagnetics*

Yaochu Jin  
University of Surrey  
Surrey, United Kingdom

*for contributions to evolutionary optimization*

Alvin Joseph  
IBM Thomas J. Watson Research Center  
Yorktown Heights, NY, USA

*for contributions to silicon-germanium bipolar-CMOS and RF silicon-on-insulator technology*

## 2016 Newly Elevated Fellows

Mahmut Kandemir  
Penn State University  
University Park, PA, USA

*for contributions to compiler support for performance and energy optimization of computer architectures*

Lance Kaplan  
Army Research Laboratory  
Adelphi, MD, USA

*for contributions to signal processing and information fusion for situational awareness*

Sheldon Kennedy  
Niagara Transformer Corporation  
Cheektowaga, NY, USA

*for leadership in the technology and standards for rectifier, inverter and harmonic-mitigating transformers*

Nam Sung Kim  
University of Wisconsin-Madison  
Madison, WI, USA

*for contribution to circuits and architectures for power-efficient microprocessors*

Joungho Kim  
KAIST- Korea Advanced Institute of  
Science and Technology  
Daejeon, Korea

*for contributions to modeling signal and power integrity in 3D integrated circuits*

## 2016 Newly Elevated Fellows

Katsumi Kishino  
Sophia University  
Tokyo, Japan

*for contributions to III-V light emitter technology*

Hitoshi Kiya  
Tokyo Metropolitan University  
Tokyo, Japan

*for contributions to filter structure, data hiding, and multimedia security*

Stuart Kleinfelder  
University of California - Irvine  
Irvine, CA, USA

*for contributions to sensors and instrumentation for high-speed imaging applications*

Michael Kneissl  
Technische Universitaet Berlin  
Berlin, Germany

*for contributions to the development of wide bandgap semiconductor laser diodes and ultraviolet LEDs*

Vladimir Kolobov  
CFD Research Corporation  
Huntsville, AL, USA

*for contributions to theory, simulation and software development for industrial plasma*

Avinoam Kolodny  
Technion - Israel Inst. of Technology  
Technion City, Haifa, Israel

*for contributions to VLSI design and automation tools*



## 2016 Newly Elevated Fellows

Danica Kragic  
Royal Institute of Technology  
Stockholm, Sweden

*for contributions to vision-based systems and robotic object manipulation*

William Krupke  
Lawrence Livermore National Laboratory  
Livermore, CA, USA

*for leadership in laser science and technology*

Lawrence Kushner  
BAE Systems, Inc.  
Merrimack, NH, USA

*for leadership in RF/microwave circuits for military and commercial applications*

Akhlesh Lakhtakia  
Pennsylvania State University  
University Park, PA, USA

*for contributions to isotropic chiral, bianisotropic materials, and metamaterials*

Erik Larsson  
Linköping University  
Linköping, Sweden

*for contributions to the technology of multi-antenna wireless communications*

Mark Laubach  
Broadcom Corporation  
Irvine, CA, USA

*for leadership in design and standardization of cable modems*

## 2016 Newly Elevated Fellows

Eugene Lavretsky  
The Boeing Company  
Everett, WA, USA

*for contributions to the development of adaptive and robust flight control technologies*

Ta Sung Lee  
National Chiao Tung University  
Hsinchu, Taiwan

*for leadership and contributions in communication systems and signal processing*

Jong Ho Lee  
Seoul National University  
Seoul, Korea

*for contributions to development and characterization of bulk multiple-gate field effect transistors*

Inkyu Lee  
Korea University  
Seoul, Korea

*for contributions to multiple antenna systems for wireless communications*

Hui Lei  
IBM T. J. Watson Research Center  
Yorktown Heights, NY, USA

*for contributions to scalable and dependable data access in distributed computing systems*

## 2016 Newly Elevated Fellows

Charles Leiserson  
MIT-Massachusetts Institute of Technology  
Cambridge, MA, USA

*for leadership in parallel and distributed computing*

Peng Li  
Texas A&M University  
College Station, TX, USA

*for contributions to the analysis and modeling of integrated circuits and systems*

Shaoqian Li  
University of Electronic Science &  
Technology of China  
Sichuan, China

*for leadership in development of broadband wireless networks*

Zhiwu Li  
Xidian University  
Xi'an, Shaanxi, China

*for contributions to Petri nets and their applications to automated manufacturing systems*

Tsong-Juu Liang  
National Cheng Kung University  
Tainan, Taiwan

*for contributions to power conversion for lighting and sustainable energy*

Weisi Lin  
Nanyang Technical University  
Singapore, Singapore

*for contributions to perceptual modeling and processing of visual signals*

## 2016 Newly Elevated Fellows

Xuemin Lin  
University of New South Wales  
Sydney, NSW, Australia

*for contributions to algorithmic paradigms for database technology*

Kai Liu  
University of California- Davis  
Davis, CA, USA

*for contributions to the understanding of magnetotransport effects and magnetization reversal in nanostructures*

Blake Lloyd  
Iris Power Engineering  
Mississauga, ON, Canada

*for development of non-intrusive diagnostics for electrical motors and generators*

Stefano Lonardi  
University of California, Riverside  
Riverside, CA, USA

*for contributions to computational biology and data mining*

Songwu Lu  
University of California, Los Angeles  
Los Angeles, CA, USA

*for contributions to wireless and mobile networking and network security*

Chenyang Lu  
Washington University in St. Louis  
Saint Louis, MO, USA

*for contributions to adaptive real-time computing systems*

## 2016 Newly Elevated Fellows

Shih-Lien Lu  
Intel Corporation  
Portland, OR, USA

*for contributions to low-voltage microarchitecture and approximate computing*

Victor Lubecke  
University of Hawaii at Manoa  
Honolulu, HI, USA

*for leadership in the development of microwave transducers for biomedical application*

Fa-Long Luo  
Element CXI, Inc.  
San Jose, CA, USA

*for contributions to adaptive signal processing for hearing and multimedia applications*

Jian-Guo Ma  
Tianjin University  
Tianjin, China

*for leadership in microwave electronics and RFIC applications*

Xiaoli Ma  
Georgia Institute of Technology  
Atlanta, GA, USA

*for contributions to block transmissions over wireless fading channels*

Souvik Mahapatra  
IIT- Indian Institute of Technology Bombay  
Mumbai, India

*for contributions to CMOS transistor gate stack reliability*

## 2016 Newly Elevated Fellows

Gabriele Manganaro  
Analog Devices Inc.  
Norwood, MA, USA

*for leadership in the design of high-speed converters*

Dimitris Manolakis  
MIT Lincoln Laboratory  
Lexington, MA, USA

*for contributions to signal processing education, algorithms for adaptive filtering, and hyperspectral imaging*

Jonathan Manton  
University of Melbourne  
Parkville, VIC, Australia

*for contributions to geometric methods in signal processing and wireless communications*

Joao Marques Silva  
IST/INESC-ID  
Lisboa, Portugal

*for contributions to decision and optimization algorithms for propositional logic*

Frank Marzano  
Sapienza University of Rome  
Rome, Italy

*for contributions to microwave remote sensing in meteorology and volcanology*

## 2016 Newly Elevated Fellows

Shinji Matsuo  
NTT Device Technology Laboratories  
Kanagawa, Japan

*for contributions to heterogeneous integration of semiconductor lasers*

Clyde Maughan  
Maughan Engineering Consultants  
Schenectady, NY, USA

*for contributions to large generator insulation systems and generator failure mechanisms*

Sudip Mazumder  
University of Illinois at Chicago  
Chicago, IL, USA

*for contributions to analysis and control of power electronics systems*

Nenad Medvidovic  
University of Southern California  
Los Angeles, CA, USA

*for contributions to the architecture of complex software systems*

Farid Melgani  
University of Trento  
Trento, Italy

*for contributions to image analysis in remote sensing*

## 2016 Newly Elevated Fellows

Ellis Meng  
University of Southern California  
Los Angeles, CA, USA

*for contributions to biomedical microelectromechanical systems*

Dimitri Metaxas  
Rutgers University  
Piscataway, NJ, USA

*for contributions to computer vision, medical image analysis, and sparse learning methods*

Risto Miikkulainen  
University of Texas at Austin  
Austin, TX, USA

*for contributions to techniques and applications for neural and evolutionary computation*

Federico Milano  
University College Dublin  
Dublin, Ireland

*for contributions to power system modeling and simulation*

Lamine Mili  
Virginia Tech  
Blacksburg, VA, USA

*for contributions to robust state estimation for power systems*



## 2016 Newly Elevated Fellows

Hlaing Minn  
University of Texas at Dallas  
Richardson, TX, USA

*for contributions to synchronization and channel estimation in communication systems*

Vishal Misra  
Columbia University  
New York, NY, USA

*for contributions to network traffic modeling, congestion control and Internet economics*

Daniele Mortari  
Texas A&M University  
College Station, TX, USA

*for contributions to navigational aspects of space systems*

David Moss  
RMIT University  
Melbourne, VIC, Australia

*for contributions to all-optical signal processing chips and commercial products for fibre optic communications*

Frank Mueller  
North Carolina State University  
Raleigh, NC, USA

*for contributions to timing analysis of real-time systems*

Annette Muetze  
Graz University of Technology  
Graz, Austria

*for contributions to the analysis and mitigation of bearing currents in variable-speed drives*

## 2016 Newly Elevated Fellows

Satoshi Nakamura  
Nara Institute of Science and Technology  
Nara, Japan

*for contributions to speech recognition and speech-to-speech translation*

Thyagarajan Nandagopal  
National Science Foundation  
Arlington, VA, USA

*for contributions to wireless network optimization, RFID systems, and network architectures*

Antonio Napolitano  
University of Naples - Parthenope  
Napoli, Italy

*for contributions to the statistical theory of nonstationary signal processing*

Robert Nelson  
Siemens  
Orlando, FL, USA

*for contributions to flexible AC transmission system (FACTS) devices and wind power generation*

Andrea Neto  
TU Delft- Delft University of Technology  
Delft, Netherlands

*for contributions to dielectric lens antennas and wideband arrays*

Branislav Notaros  
Colorado State University  
Fort Collins, CO, USA

*for contributions to higher order methods in computational electromagnetics*

## 2016 Newly Elevated Fellows

Richard Nute  
Consultant  
Bend, OR, USA

*for contributions to safety engineering of electrical and electronic products*

Claude Oestges  
Universite Catholique de Louvain  
Louvain-La-Neuve, Belgium

*for contributions to channel characterization and modeling for multiple-input multiple-output wireless communications*

Haruhiko Okumura  
Toshiba  
Tokyo, Japan

*for contribution to image processing and display technologies*

Peggy O'Neill  
NASA - Goddard Space Flight Center  
Greenbelt, MD, USA

*for contributions to the remote sensing of soil moisture*

Kenichi Osada  
Hitachi LTD.  
Tokyo, Japan

*for contributions to reliable and low-power nanoscale SRAM*

Pablo Parrilo  
MIT - Massachusetts Institute of Technology  
Cambridge, MA, USA

*for contributions to semidefinite and sum-of-squares optimization*

## 2016 Newly Elevated Fellows

Mahendra Patel  
Electric Power Research Institute  
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*for contributions to synchrophasors standardization*

Keith Paulsen  
Thayer School of Engineering at Dartmouth  
Hanover, NH, USA

*for leadership in biomedical technologies in medical imaging for diagnosis and intervention*

Joao Abel Pecas Lopes  
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Sistemas e Computadores, Tecnologia e Ciência  
Porto, Portugal

*for contributions to microgrids and the integration of wind generation*

Fernando Perez-Gonzalez  
University of Vigo  
Vigo, Spain

*for contributions to multimedia security*

Luca Perregrini  
University of Pavia  
Pavia, Italy

*for contributions to numerical techniques for electromagnetic modeling*

Zhouyue Pi  
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Allen, TX, USA

*for leadership in millimeter wave communication technology*

## 2016 Newly Elevated Fellows

William Plant  
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Seattle, WA, USA

*for contributions to the modeling electromagnetic scattering from the sea surface and its application to microwave remote sensing*

Ajay Poddar  
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*for contributions to microwave oscillators*

Ting-Chung Poon  
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*for contributions to optical image processing and digital holography*

Petar Popovski  
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Aalborg, Denmark

*for contributions to network coding and multiple access methods in wireless communications*

Alexandros Potamianos  
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*for contributions to human-centered speech and multimodal signal analysis*

Domenico Prattichizzo  
Universita di Siena  
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*for contributions to haptics and multi-fingered robotic hands*

## 2016 Newly Elevated Fellows

Calton Pu  
Georgia Institute of Technology  
Atlanta, GA, USA

*for contributions to system software specialization, information security, and services computing*

Min Qiu  
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Zhejiang, China

*for contributions to nanophotonic devices*

Wendi Rabiner Heinzelman  
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*for contributions to algorithms, protocols, and architectures for wireless sensor and mobile networks*

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*for contributions to optical signal processing by leveraging optical fiber non-linearities*

B. M. Azizur Rahman  
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*for contributions to the application of fully vectorial finite element methods to photonics design*

Sreeranga Rajan  
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*for contributions to scalable formal verification of software and hardware systems*

## 2016 Newly Elevated Fellows

Rajeev Ram  
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*for contributions to semiconductor lasers and integration of photonics with CMOS electronics*

Sundeeep Rangan  
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*for contributions to orthogonal frequency division multiple access cellular communication systems*

Gregory Raybon  
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*for contributions to high-speed optical communication systems*

Leonard Register  
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Austin, TX, USA

*for contributions to modeling of charge transport in nanoscale CMOS devices*

Andreas Reigber  
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*for contributions to SAR tomography and airborne multi-band SAR*

Kui Ren  
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*for contributions to security and privacy in cloud computing and wireless networks*

## 2016 Newly Elevated Fellows

Wei Ren  
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*for contributions to distributed coordination and control of multi-agent systems*

Stefan Ritt  
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Pablo Rodriguez  
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*for contributions to the design and development of content distribution architectures in the Internet*

Stergios Roumeliotis  
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*for contributions to visual-inertial navigation and cooperative localization*

Chris Rowen  
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*for leadership in the development of microprocessors and reduced instruction set computers*

Xinbo Ruan  
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*for contributions to switching-mode power converter topologies and modulation strategies*



## 2016 Newly Elevated Fellows

Daniel Rueckert  
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London, United Kingdom

*for contributions to biomedical image computing*

Daniel Sabin  
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*for leadership in power quality database management and analysis software*

David Sampson  
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*for contributions to fiber-optic biophotonics and biomedical optical imaging*

Jagannathan Sarangapani  
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*for contributions to nonlinear discrete-time neural network adaptive control and applications*

Lorenz Schmidt  
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Erlangen, Germany

*for contributions to millimeter-wave and terahertz imaging systems*

Noel Schulz  
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Manhattan, KS, USA

*for leadership in advancing women in engineering and electric ship technologies*

## 2016 Newly Elevated Fellows

Karsten Schwan  
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*for contributions to high-performance, real-time and virtualized computing systems*

Ivan Selesnick  
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*for contributions to wavelet and sparsity based signal processing*

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*for contributions to analysis of cross-layer interactions in cellular networks*

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*for contributions to network design, routing and applications to Internet backbone, data centers, and peer-to-peer systems*

Weisong Shi  
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*for contributions to distributed systems and internet computing*

Yuhui Shi  
Xi'an Jiaotong - Liverpool University  
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*for contributions to particle swarm optimization algorithms*

## 2016 Newly Elevated Fellows

Thomas Silva  
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*for contributions to the understanding and applications of magnetization dynamics*

Oswaldo Simeone  
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*for contributions to cooperative cellular systems and cognitive radio networks*

Marcelo Simoes  
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*for application of artificial intelligence in control of power electronics systems*

Theodore Sizer  
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New Providence, NJ, USA

*for leadership in wireless communications technology*

Bruce Smith  
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Rochester, NY, USA

*for contributions to semiconductor lithography*

Jian Song  
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Beijing, China

*for contributions to digital television broadcasting*

## 2016 Newly Elevated Fellows

Matteo Sonza Reorda  
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*for design of test algorithms for reliable circuits and system*

Mehmet Soyuer  
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*for contributions to the design of high-frequency integrated circuits for clocking and communications*

Giovanni Spagnuolo  
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*for contributions to control of photovoltaic systems*

Thomas Stuetzle  
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*for contributions to the design and engineering of heuristic optimization algorithms*

Il Hong Suh  
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*for contributions to the design and control of redundant and multiple-arm robot systems*

Sun Sumei  
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*for leadership in design and standardization of wireless communication systems*

## 2016 Newly Elevated Fellows

Toru Tanzawa  
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*for contributions to integrated high-voltage circuits*

Vladimir Terzija  
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*for contributions to power systems protection*

Diane Thiede Rover  
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*for contributions to active learning methods in engineering education*

John Thompson  
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*for contributions to multiple antenna and multi-hop wireless communications*

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*for contributions to multimedia information retrieval*

Akira Toriumi  
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*for contributions to device physics and materials engineering for advanced CMOS technology*

## 2016 Newly Elevated Fellows

Sennur Ulukus  
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*for contributions to characterizing performance limits of wireless networks*

Ben U Seng Pan  
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*for leadership in the analog circuit design*

K. Venugopal  
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*for contributions to computer science and electrical engineering education*

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*for contributions to lightning protection*

Martin Vossiek  
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*for contributions to the design of wireless and radar positioning systems*

Sarma Bala Vrudhula  
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*for contributions to low-power and energy-efficient design of digital circuits and systems*

## 2016 Newly Elevated Fellows

Bernhard Walke  
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*for contributions to packet switching and relaying in cellular mobile system*

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

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*for leadership in trusted computing and communication systems*

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*for contributions to measurement and management of large operational networks*

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*for contributions to genomic signal analytics and image-based tissue characterization*

Zhengdao Wang  
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*for contributions to multicarrier communications and performance analysis of wireless systems*

## 2016 Newly Elevated Fellows

Zhong Feng Wang  
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*for contributions to VLSI design and implementation of forward error correction coding*

David Wolpert  
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*for contributions to optimization, machine learning, distributed control, and game theory*

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*for contributions to mobility management in wireless networks and demand side management in smart grid*

Kaikit Wong  
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London, United Kingdom

*for contributions to multiuser communication systems*

Jieh Wu  
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Hsin-Chu, Taiwan

*for contributions to design and calibration of high-performance data converters*

Ernest Wu  
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*for contributions to gate oxide reliability of CMOS devices*



## 2016 Newly Elevated Fellows

Liang-Liang Xie  
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*for contributions to fundamental limits of feedback control systems and wireless networks*

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*for contributions to medical imaging and image-guided interventions*

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*for contributions to the improvement of wireless networks efficiency*

Chengzhong Xu  
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*for leadership in resource management for parallel and distributed systems*

Li Xu  
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*for contributions to theory and applications of enterprise information systems*

Lie Liang Yang  
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*for contributions to multicarrier communications and wireless transceivers*

## 2016 Newly Elevated Fellows

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*for contributions to radar systems for meteorology*

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*for contributions to low-power integrated circuit design*

Jinhong Yuan  
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*for contributions to multi-antenna wireless communication technologies*

Luca Zaccarian  
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*for contributions to the development and application of nonlinear and hybrid control systems*

Daniel Zeng  
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and CAS Institute of Automation  
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*for contributions to collaborative computing with applications to security informatics*

Bing Zeng  
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and Technology of China  
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*for contributions to image and video coding*

## 2016 Newly Elevated Fellows

Xi Zhang  
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*for contributions to quality of service in mobile wireless networks*

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*for leadership in standardization of cellular systems*

Yi Zhang  
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*for contributions to convergence theory for neural networks and subspace learning*

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*for contributions to the theory of multiple antenna communication*

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