IEEE Fellows Elevated as of January 2024

Nominee Details	Active Societies	Evaluating Society/ Council
Nathan Goodman *for contributions to cognitive and distributed radar signal processing*	AES SP	AES
Neil Gordon *for contributions to sequential Monte Carlo methods and applications*	AES SP	AES
Zaher Kassas *for contributions to navigation with signals of opportunity*	SP COM ITSS VT AES	AES
Luke Rosenberg *for contributions to maritime radars*	AES	AES
James Breakall *for design of novel antennas for radar, communications, and ionospheric and radio-astronomy research*	AP BT	AP
Yu Jian Cheng *for contributions to substrate integrated millimeter-wave array antenna technology*	MTT AP	AP
Gregory Durgin *for contributions to the theory of fading in multi-antenna RFID systems*	COM AP MTT RFID	AP

Giacomo Oliveri *for contributions to analytic design of antenna arrays and compressive sensing in electromagnetics*	AP	AP
Atif Shamim *for contributions in the field of antenna-on-chip and antenna-in-package*	ED AP MTT SEN RFID NANO	AP
Mohammad Sharawi *for contributions to multiband, reconfigurable, and integrated active multiple-input and multiple-output antenna systems*	MTT AP CEDA RFID NANO SEN	AP
Hang Wong *for contributions to development of magneto-electric dipole and L-probe feed for wideband and reconfigurable antennas*	AP	AP
Terry Benzel *for leadership in establishing the field of cybersecurity experimentation*	C	C
Swarup Bhunia *for contributions to the design of secure and trustworthy microelectronic systems*	C CEDA	C
Zhipeng Cai *for contributions to resource management and scheduling for high-performance computing*	COM C VT	C
Enhong Chen *for contributions to context-aware data mining and recommender systems*	CIS SMC C	C

Songqing Chen *for contributions to Internet streaming, content delivery, and security*	C	C
Bin Cui *for contributions to large-scale data management, processing and analytics*	C	C
Sven Dickinson *for contributions to shape representation, processing, and classification in computer vision*	C	C
Xin Dong *for contributions to knowledge graph construction and data integration*		C
Niklas Elmqvist *for contributions to mobile, ubiquitous, and immersive technologies for data visualization*	C	C
Joan Feigenbaum *for contributions to trust-management systems and Internet algorithmics*	C	C
Dan Feng *for contributions to data storage systems*		C
Reza Ghanadan *for leadership in robust artificial intelligence technologies and applications*	COM SMC C SP	C
Qi He *for contributions to knowledge engineering and business applications*		C

Name		
Shimin Hu *for contributions to computational visual media and geometric processing*	C	C
Axel Jantsch *for contributions to modeling and algorithms for Networks-on-Chip*	CEDA C	C
Yu-gang Jiang *for contributions to large-scale video analysis and open-source datasets*	SP CAS C	C
Alex Jones *for contributions to sustainable computing*		C
Hyesoon Kim *for contributions to resource modeling and partitioning in heterogeneous computing systems*	C	C
Yongdae Kim *for contribution to cellular and distributed system security*	C	C
Rakesh Kumar *for contributions to energy-efficient processor architecture and design*		C
Ashish Kundu *for contributions to data security, privacy, and compliance in cloud systems*		C
Benjamin Lee *for contributions to the design of microprocessors with machine learning and game theory*		C
Xiao-li Li *for contributions to machine learning models*		C

Name		
Zhiqiang Lin *for contributions to automated vulnerability discovery, code hardening, and monitoring in mobile and systems security*		C
Chang-tien Lu *for contributions to spatial informatics and urban computing*	C	C
Bradley Malin *for contributions to data engineering, privacy, and security in biomedicine*		C
Klaus Mueller *for contributions to image reconstruction and visualization*	C EMB	C
Max Muhlhauser *for contributions to distributed software engineering*	COM C	C
Dimitrios Nikolopoulos *for contributions to dynamic execution environments and multiprocessor memory management*	C	C
Gopal Pandurangan *for contributions to theory and algorithms for distributed computing and networks*		C
Ioannis Pavlidis *for contributions to contact-free physiological measurements and affective computing*	C	C
Denys Poshyvanyk *for contributions to integrating software analyses and machine learning*	C	C
Vijay Raghunathan *for contributions to design of low power and energy harvesting embedded systems*	CEDA CAS C	C

Name and citation		
Narendran Ramakrishnan *for contributions to algorithms and systems for event modeling and forecasting*	C	C
Rajiv Ranjan *for contributions to quality-of-service-aware resource management in cloud computing systems and big data analytics*	C	C
Larry Rosenblum *for leadership in developing mobile augmented reality and visualization, and in visual analytics*	C	C
Karthikeyan Sankaralingam *for contributions to identifying and mitigating the challenges of dark silicon*		C
Jianbing Shen *for contributions to computer vision for video analysis and visual understanding*	SP	C
Forrest Shull *for contributions to software engineering research*	C	C
Padhraic Smyth *for contributions to machine learning and data science*	IT	C
Karin Strauss *for contributions to storage systems*	C	C
Yufei Tao *for contributions to large-scale data processing*		C
Zhi Wei *for contributions to knowledge discovery from biological data*	SMCC	C

Name / Citation		
Jing Xiao *for contributions to the multiple modality knowledge mining technologies*	C CAS COM SP	C
Bin Xiao *for contributions to wireless and system security*	C COM	C
Wenyuan Xu *for contributions to embedded systems for automobile security*		C
Hao Zhang *for contributions to shape analysis and synthesis in visual computing*		C
Warren Gross *for contributions to the design of algorithms and integrated circuit architectures for communication systems*	IT CAS COM SP	CAS
Tsung-yi Ho *for contributions to design automation and test of microfluidic biochips*	CAS CEDA C	CAS
Liang Lin *for contributions to multimedia content analysis*	CAS SP	CAS
Huchuan Lu *for contributions to visual object tracking and salient object detection*	CAS SYS C BIO SP	CAS
Jiwen Lu *for contributions to visual content analysis and recognition*	CAS BIO SP	CAS
Siwei Ma *for contributions to video coding technologies and standards*	SP CAS C	CAS

Name		
Xiaoning Qi *for leadership in open-source hardware of computer architecture and contributions to holistic interconnect system design*	CAS	CAS
Esther Rodriguez-villegas *for contributions to low power biomedical circuits and systems for wearable medical applications*		CAS
Krassimir Atanassov *for contributions to introducing intuitionistic fuzzy sets and their applications*	CIS SMC	CIS
Long Cheng *for contributions to neural networks for optimization and control*	RA CIS SMC	CIS
Junping Du *for contributions to modeling and intelligent analysis of big data*	C CIS	CIS
Xinbo Gao *for contribution to hybrid augmented intelligence and image quality assessment*	CIS C SMC	CIS
Maoguo Gong *for contributions to collaborative learning and optimization*	CIS SMC GRS C	CIS
Changchun Hua *for contributions to intelligent control of nonlinear time-delay systems*	IE SMC CS CIS	CIS
Pedro Larranaga *for contributions to estimation of distribution algorithms, feature subset selection and Bayesian networks methodologies*		CIS

Yang Tang *for contributions to hybrid multi-agent systems and complex networks*	IE CIS SMC CS CAS	CIS
Zhen Wang *for contributions to cooperation in multi-agent games and computing methods in networked intelligent systems*	SYS IE SMC CIS	CIS
Bing Xue *for contributions to evolutionary deep learning*	CIS	CIS
Georgios Yannakakis *for contributions to affective computing and artificial intelligence applied to games*	CIS	CIS
Zhi-hui Zhan *for contributions to efficient adaptive evolutionary computation*	CIS SMC	CIS
Aggelos Bletsas *for contributions to cooperative relaying and backscatter communication networks*	SP COM RFID SEN	COM
Matthew Caesar *for contributions to computer network verification and routing*		COM
Yu Cheng *for contributions to secure wireless networks*	VT COM	COM
Kaushik Chowdhury *for contributions to development of cognitive radio networks and applied machine learning for wireless systems*	COM SP	COM
Matthew Ettus *for contributions to software-defined radio products*	SP CAS COM	COM

Name and Citation	Nominating Society	Evaluating Society
Ana Garcia-armada *for contributions to wireless communications transceivers*	VT COM BT	COM
Tao Gu *for contributions to mobile and wireless sensing systems*		COM
Choongseon Hong *for contributions to resource management in wireless networks*	COM	COM
Jakob Hoydis *for contributions to the use of machine learning in communication systems*	COM SP	COM
Chunxiao Jiang *for contributions to heterogeneous space-air-ground networks*	SP COM VT	COM
Shi Jin *for contributions to MIMO and reconfigurable intelligent surface-assisted communications*	SP COM VT	COM
Josep Miquel Jornet *for contributions in terahertz communication and nanonetworking*	NANO COM VT MTT AP AES	COM
Raymond Knopp *for contributions to multiuser diversity and open radio access networks*	COM IT	COM
Matti Latva-aho *for contributions to mobile communication systems*	VT COM SP	COM
Long Le *for contributions to resource management and optimization of wireless networks*	COM	COM

Name		
Qinghua Li *for contributions to standardization of wireless channel probing and modeling technologies*		COM
Pan Li *for contributions to scaling laws and cross-layer optimization for wireless networks*	VT COM	COM
Jie Li *for contributions to performance and management of network systems*	VT SEN COM C	COM
Ming Li *for contributions to information and network security*	COM	COM
Hongwei Li *for contributions to data security in cloud computing*	COM VT	COM
Hang Liu *for contributions to the development and standardization of wireless mesh networking and video streaming technologies*	COM C	COM
Yuanwei Liu *for contributions to non-orthogonal multiple access technologies and wireless power transfer*	COM VT SP	COM
Jun Luo *for contributions to wireless networking and sensing using Internet-of-Things*		COM
Jochen Maes *for contributions to crosstalk cancellation technologies for twisted pair access*	COM	COM

Name	Societies	Nominating Society
Christos Masouros *for contributions to interference exploitation and joint sensing and communications*	COM SP	COM
Mathini Sellathurai *for contributions to multi-user, multi-functional and multi-antenna wireless communications*	SP COM	COM
Chao-kai Wen *for contributions to deep learning technology for wireless systems*	COM SP BT	COM
Henk Wymeersch *for contributions to radio localization and sensing*	COM VT SP	COM
Ke Xu *for contributions to optimal traffic management and network security*	COM	COM
Zheng Yan *for contributions to trust management in communications and networking*	COM TEM	COM
Yifei Yuan *for contributions to non-orthogonal multiple access and narrow-band Internet-of-Things technology and standardization*	COM	COM
Honggang Zhang *for contributions to intelligent wireless communications and networks*	SP SYS COM CIS	COM
Sheng Zhong *for contributions to incentive-compatible and privacy-preserving mechanisms in distributed systems*	VT COM SP C	COM

Name	Societies	
Alessandro Abate *for contributions to verification and control of stochastic hybrid systems*		CS
Subhrakanti Dey *for contributions to networked control systems and performance optimization over wireless and sensor networks*	COM CS IT SP	CS
Antoine Girard *for contributions to formal verification and synthesis of cyber-physical systems*	CS	CS
Minyi Huang *for contributions to mean field game theory*	CS	CS
Niklas Karlsson *for technical leadership to vSLAM and online advertising*	CS RA SP	CS
Zhiyun Lin *for contributions to distributed multi-agent systems and autonomous systems*	RA CS	CS
Jason Marden *for contributions to game theory for distributed control systems*		CS
Prashant Mehta *for contributions to nonlinear filtering*	CS	CS
John Ringwood *for contributions to wave energy conversion systems*	CS	CS
Dusan Stipanovic *for contributions to control of complex systems*	CAS CS	CS

Name		
Sophie Tarbouriech *for contributions to nonlinear control systems with isolated nonlinear elements*	CS	CS
Ufuk Topcu *for contributions to the design and verification of autonomous systems*	CS	CS
Ardalan Vahidi *for contributions to control of connected, automated, and hybrid vehicles and applications of optimal control*	CS	CS
Fumin Zhang *for contributions to autonomy of robotic sensing networks and control of marine robots*	RA CS C OE SP	CS
Wen-huang Cheng *for contributions to intelligent multimedia computing and applications*	SP CASC CT CIS	CT
Steve Mann *for contributions to wearable and immersive computing technologies*		CT
Robert Bishop *for contributions to control systems engineering education*	AES	E
Thomas Hall *for leadership in engineering technology education*	E ED	E
Srabanti Chowdhury *for contributions to wide bandgap semiconductor devices and technology*	ED	ED

Name	Nominating Societies	Evaluating Society
Oliver Faynot *for leadership in CMOS technology development*	ED	ED
Aaron Franklin *for contributions to transistor scaling and carbon nanotubes applications in electronics*	ED	ED
Francesca Iacopi *for contributions to integration strategies of nanomaterials in silicon technologies*	ED CEDA NANO SEN EP RL PHO	ED
Debdeep Jena *for contributions to distributed polarization doping in the III-V semiconductor family*	ED	ED
Mario Lanza *for contributions to nanoelectronics metrology of ultra-scaled materials and devices*	ED	ED
Ionut Radu *for contributions to silicon-on-insulator materials for semiconductor devices*	ED	ED
Yukiharu Uraoka *for contributions to reliability evaluation technology for thin film devices*	ED	ED
Barry Bing-ruey Wu *for contributions to enhancement and commercialization of InP-based ultra-high-speed DHBT IC technology*	PHO ED	ED
Shimeng Yu *for contributions to non-volatile memories and in-memory computing*	CEDA NANO ED CAS	ED

Name		
Daniel Alexander *for contributions to medical imaging and analysis*		EMB
Mark Anastasio *for fundamental contributions to advanced computed imaging*	EMB	EMB
Sameer Antani *for contributions to medical imaging research in high-morbidity disease screening*	EMB C CIS	EMB
Mathias Baumert *for contributions to biomedical signal processing and clinical applications*	EMB	EMB
Kevin Englehart *for contributions to myoelectric signal processing in rehabilitation engineering*	EMB	EMB
Jason Heikenfeld *for leadership in electrofluidic and biosensing devices*		EMB
Chulhong Kim *for contribution to photoacoustic imaging and its clinical applications*	EMB	EMB
Milosradomir Popovic *for contributions to novel electrical stimulation approaches and devices in biomedical engineering*		EMB
Maryam Shanechi *for contributions to brain-machine interfaces*	EMB	EMB
Shankar Subramaniam *for contributions to biomedical science and engineering*	EMB	EMB

Name	Society 1	Society 2
Georgia Tourassi *for contributions to artificial intelligence and high performance computing in medicine*	EMB	EMB
Daryl Beetner *for contributions to measurement, modeling, and prediction of electromagnetic immunity and power integrity issues*	EMC	EMC
Ji Chen *for contributions to implantable medical device safety in MRI*	EMC MTT AP PSE	EMC
Wendemagegnehu Beyene *for contributions to modeling and simulation techniques for high-speed links*	EP	EP
Premjeet Chahal *for contributions to additive manufacturing and materials characterization*	EP AP RFID NANO SEN ED MTT	EP
Seungbae Park *for contributions to design of reliable electronic packaging*	EP	EP
Shumpei Kameyama *for leadership in fiber-based lidar technology for environment sensing applications*	GRS PHO	GRS
Manuel Martin-neira *for contributions and leadership in innovative remote sensing techniques*	GRS	GRS
Vito Pascazio *for contributions to statistical signal processing in imaging radars*	SP GRS AES	GRS

Name		
Pau Prats-iraola *for contributions to airborne and spaceborne synthetic aperture radar data*	GRS	GRS
Devis Tuia *for contributions to artificial intelligence and machine learning applied to Earth Observation data*	GRS	GRS
Xiaochuan Jia *for contributions to development of electric machines and DC power generation systems for aerospace applications*	PEL IA MAG	IA
Lorraine Padden *for contributions to development of standards for motor protection and applications in industry*	IA PE	IA
Li Qi *for contributions to DC distribution protection and architectures of DC shipboard power systems*	PE PEL IA	IA
Kazuo Shimizu *for contributions to the modeling and applications of microplasma phenomena in complex industrial processes*	IA	IA
Giri Venkataramanan *for contributions to control of energy resources in microgrids*	IA PEL PE	IA
Brian Welchko *for contributions to electric propulsion systems*	PEL IA PE IE	IA
Di Zhang *for contributions to motor drives and breakers for electrified aircraft propulsion*	PEL IE IA	IA

Name	Societies	
Georges Zissis

for contributions to improving efficiency and light quality, and enabling industrial applications in lighting systems | IA
SYS
PEL | IA |
| Claudio Adragna

for contributions to industrial usage of resonant converters in offline power supplies | CAS
IE
PEL | IE |
| Marcian Cirstea

for contributions to system-on-chip design methods and industrial digital controllers using HDLs and FPGAs | IE | IE |
| Hiroshi Fujimoto

for contributions to control of high-precision systems | RA
IA
CS
PEL
IE | IE |
| Atif Iqbal

for contributions to multiphase power conversion and renewable energy systems | IE | IE |
| Toshiyuki Murakami

for contributions to reaction torque observer and power assisted control | RA
IE | IE |
| Bijaya Ketan Panigrahi

for design of intelligent tools for power quality improvement and MPPT for solar energy systems | PE
IE
CIS
PEL
C | IE |
| Jianbin Qiu

for contributions to intelligent fuzzy control systems and applications | IE
BIO
SYS
NANO
SMC
CIS
RA | IE |
| Yuanqing Xia

for contributions to controlling unmanned systems | CS
IE | IE |

Name and Citation	Societies	Evaluating Society
Wei Xu *for contributions to design and control of linear and rotary machines and drives*	PEL IA PE VT IE	IE
Chenguang Yang *for contributions to control and learning of mechatronic systems*	RA SMC IE	IE
Hui Zhang *for contributions to automotive electronic systems*	VT SMC ITSS IE	IE
Tao Zhang *for contributions to robot vision perception and adaptive fault-tolerant control*	RA CS E IE	IE
Alessandra Flammini *for contributions to wireless distributed measurements for industrial systems*	IE PE IM	IM
Massood Zandi Atashbar *for contributions to flexible hybrid electronics*	SEN NANO UFFC ED IM	IM
Joerg Kliewer *for contributions to theory and applications of iteratively decodable error correcting codes and network coding*	COM IT SP	IT
Hoi-kwong Lo *for contributions to theory and practice of quantum cryptography*	IT	IT
Yury Polyanskiy *for contributions to information measures and finite-blocklength information theory*	IT	IT

Name / Citation		
Moshe Schwartz *for contributions to the theory and practice of error-correcting coding for storage systems*	IT	IT
Chih-chun Wang *for contributions to graph-based error-correcting codes and network codes*	IT	IT
Azim Eskandarian *for contributions to communication and control of intelligent autonomous vehicles*	RA ITSS CS	ITSS
Junmin Wang *for contributions to ground vehicle safety*	ITSS	ITSS
Elke Arenholz *for contributions to X-ray magnetic spectroscopy*	MAG	MAG
Victorino Franco *for contributions to the study of thermomagnetic phase transitions, soft magnets, and magnetocaloric materials*	SEN NANO MAG	MAG
Yiming Huai *for contributions and leadership to STT MRAM and GMR recording heads development and productization*	MAG CSC NANO SEN	MAG
Stephen Russek *for contributions to metrology of spintronic devices and standardization of magnetic resonance imaging*	MAG	MAG
Yoichiro Tanaka *for contributions to perpendicular magnetic recording technology for disk drives*	MAG	MAG
Joseph Bardin *for contributions to cryogenic microwave circuits*	ED SSC MTT	MTT

Name	Societies	Elevating Society
Alexander Chenakin *for contributions to microwave frequency synthesizer technologies*	MTT UFFC	MTT
Paolo Colantonio *for contributions to microwave power amplifiers*	MTT	MTT
Frank Ellinger *for contributions to radio frequency integrated phase shifters and amplifiers*	MTT	MTT
Deukhyoun Heo *for contributions to CMOS power amplifiers in multi-layer packages and reconfigurable reactive components*	COM MTT SSC CAS	MTT
Telesphor Kamgaing *for contributions to microwave and millimeter-wave packaging and system integration technologies*	EP MTT	MTT
Dietmar Kissinger *for contributions to millimeter-wave integrated circuits*	SSC MTT	MTT
Miguel Laso *for contributions to high-power and smooth-profiled filters*	MTT	MTT
Changzhi Li *for contributions to portable microwave radar sensor technologies*	EMB MTT	MTT
Kaixue Ma *for contributions to low-loss substrate integrated suspended line technology and reconfigurable millimeter-wave front-end integrated circuits*	SSC MTT AP	MTT
Ho-jin Song *for contributions to wireless terahertz technology*	COM SSC MTT AP	MTT

Alberto Valdes-garcia *for contributions to millimeter-wave circuits and systems for communications*	COM MTT SSC ED	MTT
Bruno De Man *for contributions to X-ray computed tomography*	NPS	NPS
Roger Lecomte *for contributions to avalanche photodiode use in scintillation detectors and to positron emission tomography*	NPS	NPS
Gabriel Benmouyal *for contributions to digital protective relays for power systems*	PE	PE
Yijia Cao *for contributions to analysis and control of smart grids*	PE	PE
Hong Chen *for contributions to economic efficiency equilibrium and risk mitigation in power system operations*	PE SYS NANO	PE
Ninel Cukalevski *for leadership in resilience enhancement in control and information systems*	PE	PE
Robert Cummings *for leadership in power system disturbance analysis and standardization of power system protection and reliability*	PE	PE
Pengwei Du *for contributions to integration of load resources in electricity market and control of smart grid*	PE	PE
Mohamed El Moursi *for contributions to renewable energy integration and hybrid power grids*	PE PEL	PE

Herbert Falk *for contributions and leadership in secure, reliable, and interoperable communication of the electric power grid*	PE	PE
Normann Fischer *for contributions to fault protection methodologies for electric power grids*	PE	PE
Vahan Gevorgian *for contributions to the wind and solar photovoltaics in grids*	IA PE	PE
Qinglai Guo *for contributions to system-wide voltage control in power systems*	PE	PE
Gene Henneberg *for contributions to electric power system integrity protection schemes*	PE	PE
Michael Heyeck *for contributions to development of advanced high-voltage power system technology*	PE	PE
Takashi Hiyama *for contributions to intelligent power systems*	CIS PE	PE
Jun Liang *for contributions to DC grid's modeling and control*	PEL PE	PE
S M Muyeen *for contributions to stable grid-interfaced renewable energy conversion and control*	PE IA	PE
Tom Prevost *for contributions to life estimation of transformer insulation systems*	PE DEI	PE

Veronika Rabl *for contributions to the design of demand response resources and electrification*	PE	PE
Michael Ropp *for contributions to distributed energy resources integration in power systems*	PEL VT PE PHO ED	PE
Joseph Rostron *for leadership in power switching interrupter design and development of circuit breakers and switchers*	IA PE	PE
Kai Sun *for contributions to power grid stability analysis and control*	PE	PE
Maria Tavares *for contributions to single-phase and three-phase auto-reclosing switching of transmission lines*	PE	PE
Marianna Vaiman *for contributions to transmission and distribution grids*	PE	PE
Jianzhong Wu *for contribution to multi-energy systems and peer-to-peer energy trading*	PE	PE
Xiaorong Xie *for contributions to analysis of subsynchronous resonance in electrical power systems*	PE	PE
Pei Zhang *for contributions to computational methods for smart control centers and probability-based planning and operation*	PE	PE

Jim Zheng *for contributions to energy storage technologies*	PE ED PHO	PE
Tongxin Zheng *for contributions to electricity market design and its operational method*	PE	PE
Zheng Zhou *for contributions to electromagnetic transients simulation and the study of HVDC dynamics*	PE	PE
Ke-horng Chen *for contributions to power management integrated circuits and system design*	PEL CAS ED SSC COM IE	PEL
Jonathan Clare *for contributions to control, simulation and application of power electronic converters*	PEL IA IE	PEL
Dong-choon Lee *for contributions to energy conversion technology and systems*	PEL IA PE IE	PEL
Byoung Kuk Lee *for contributions to battery chargers for electric vehicles*	PEL IA PE IE	PEL
Robert Pilawa-podgurski *for contributions to hybrid switched capacitor power converters*	PEL E SSC	PEL
Li Ran *for contributions to the modeling of power electronic devices*	PEL IA ED PE IE	PEL

Name		
Kai Sun *for contributions to power electronics in renewable energy systems and microgrids*	PEL	PEL
Siew Chong Tan *for contribution to the control of power converters and sustainable lighting technologies*	PEL	PEL
Bo Zhang *for contributions to nonlinear analysis in power electronics*	PEL IE PE	PEL
Scott Diddams *for contributions to optical frequency combs and their applications*	PHO UFFC	PHO
Dirk Englund *for contributions to semiconductor quantum photonics and machine learning*	PHO ED	PHO
Gordon Keeler *for leadership in heterogeneous photonics and optical microsystems*	PHO	PHO
Di Liang *for contributions to photonic integration in optical communication, computing, and volume production*	SSC PHO ED EP	PHO
Marko Loncar *for contributions to thin film lithium nanophotonics*	ED PHO	PHO
Mansoor Sheik-bahae *for contributions to nonlinear optics and solid-state laser cooling*		PHO
Jinn-kong Sheu *for contributions to light-emitting diodes and photovoltaic devices*		PHO

Name / Citation		
Volker Sorger *for contributions to the optoelectronic devices and photonic-electronic ASICs*	ED PHO CIS	PHO
Jian Wang *for contributions to twisted light, structured light, and photonic integration for multi-dimensional optical communications*	PHO	PHO
Koji Yamada *for contributions to silicon photonics*	PHO	PHO
Kim Fung Tsang *for contributions to systems safety engineering*	IE PSE CT COM MTT SEN SYS	PSE
Chien Cheah *for contributions to task-space robot control and dynamic multi-robot control*	RA	RA
Noah Cowan *for contributions to sensing, navigation, and control in animals and machines*	RA CS	RA
Mariagrazia Dotoli *for contributions to control of logistics systems in smart cities*	RA SMC CS	RA
Sami Haddadin *for contributions to robot safety, tactile robots, and interaction control*	RA	RA
George Q Huang *for contributions on digitization framework and cyber-physical analytics for smart manufacturing*	RA	RA

Name		
Paul Oh *for contributions to unmanned aerial vehicles and humanoid robotics*	RA	RA
Danail Stoyanov *for contributions to intelligent computer-assisted surgical and diagnostical systems*	RA EMB	RA
Salah Sukkarieh *for contributions to robotic navigation in aerial and agricultural applications*		RA
Sheng Xie *for contribution to robotics for rehabilitation and healthcare*	RA	RA
Enrico Zio *for contributions to safety and reliability engineering*	SP RL CIS IE	RL
Mingcong Deng *for contributions to learning and operator based uncertain nonlinear systems analysis, control, and applications*	RA RFID SMC	SMC
Oleg Gusikhin *for contributions to applications of cyber-physical systems in automotive engineering and connected vehicles*	SMC ITSS VT	SMC
Ming Hou *for leadership in intelligent adaptive systems and interaction-centered design*	SMC	SMC
Tadahiko Murata *for contributions to evolutionary multi-objective optimization and algorithms*	SMC	SMC

Mehrdad Saif *for contributions to monitoring, diagnosis and prognosis in cyber-physical health systems*	SMC CS	SMC
P Thushara Abhayapala *for contribution to the theory of spherical harmonic-based spatial sound field recording, reproduction, and control*	AP SP	SP
Juan Bello *for contributions to sound detection and retrieval*	SP	SP
Volkan Cevher *for contributions to model-based signal processing and semi-definite programming*	SP IT	SP
Leslie Collins *for contributions to signal processing algorithms for auditory applications and to buried threat detection*	E GRS EMB SP	SP
Min Dong *for contribution to transmission design and resource optimization for wireless communications*	SP COM	SP
Sergiu Goma *for contributions to hardware implementation of image processing for color cameras in mobile phones*	ED SP CT SSC C	SP
Onur Guleryuz *for contributions to nonlinear approximation and sparsity-based signal processing*	C IT SP	SP
Gitta Kutyniok *for contributions to the mathematical theory of artificial intelligence in signal processing and communication*	SP IT	SP

Name		
Jonathan Le Roux *for contributions to multi-source speech and audio processing*	SP	SP
Ming-yu Liu *for contributions to generative adversarial networks in multimodal content creation*		SP
Yue Lu *for contributions to multidimensional signal processing*	IT SP	SP
Arrate Munoz-barrutia *for contributions to biomedical image processing*	EMB SP	SP
Benjamin Recht *for contributions to high-dimensional signal processing, machine learning, and optimization*		SP
Anderson Rocha *for contributions to digital forensics using machine learning*	SP	SP
Hamid Sheikh *for contributions to visual quality prediction in mobile cameras*	SP	SP
Kush Varshney *for contributions to socially responsible and trustworthy machine learning*	SP	SP
Martin Wainwright *for contributions to the theory of statistical signal processing and machine learning*		SP
David Wipf *for contributions to detecting low-dimensional data structures*	SP	SP

Name	Nominating Societies	Evaluating Society
Roger Woods *for contributions to VLSI chips and FPGA implementations for signal processing*	IE SP	SP
Arie Yeredor *for contributions to blind source separation*	SP	SP
Hengyong Yu *for contribution to tomographic image reconstruction*	EMBC SP	SP
Shuo-wei Chen *for contributions to data converter architectures and clock generation techniques*	CAS SSC	SSC
Seonghwan Cho *for contributions to time-domain circuits and applications*	CAS SSC EMB	SSC
Osama Shana'a *for leadership in developing low-cost high-performance RF transreceivers*	SSC MTT	SSC
Vladimir Stojanovic *for contributions to electronic-photonic design and system-on-chip integration*	CAS ED PHO SSC	SSC
Kui Yao *for contributions to the development of advanced ferroelectric thin films and their sensor applications*	UFFC	UFFC
Alfred Yu *for contributions to ultrasound imaging technology and therapy*	EMB UFFC	UFFC
Alagan Anpalagan *for contributions to resource management in wireless communication networks*	VT COM	VT

Name		
Yue Gao *for contributions to sparse signal processing and smart antennas in cognitive radio and networks*	VT COM SP AP	VT
Guan Gui *for contributions to intelligent signal analysis and wireless resource optimization*	SP COM VT RFID	VT
Xiaosong Hu *for contributions to battery management algorithms and electric vehicle optimization*	IE VT PEL ITSS	VT
Sastry Kompella *for leadership in advancing dynamic spectrum access and wireless communications*	COM VT	VT
Wei Ni *for contributions to resource allocation and cooperation in unmanned aerial vehicle networks*	VT COM	VT
Qihui Wu *for contributions to cognitive radio networks*	COM VT	VT
Lian Zhao *for contributions to modeling, performance analysis, and resource management of wireless networks*	VT COM	VT
Kan Zheng *for contributions to resource management in wireless networks*	RFID SEN SYS VT	VT
Zhen Lei *for contributions to face analysis and object detection*	SP	BIO
Lei He *for contributions to integrated circuits and smart energy systems*	CEDA	CEDA

Sri Parameswaran *for contributions to embedded computer circuits and systems*	CASC	CEDA
Sudeep Pasricha *for contributions to design and optimization of chip-scale communication architectures for manycore computing*	CEDAC	CEDA
Qinru Qiu *for contributions to modeling and optimization of energy efficient computing systems*	CAS CIS	CEDA
Haoxing Ren *for contribution to physical synthesis of integrated circuits*		CEDA
Jinjun Xiong *for contributions to process variation modeling, circuit yield optimization, and their applications in industry*	CEDA	CEDA
Jay Gambetta *for contributions to quantum computing*		CSC
Nobuyuki Yoshikawa *for contributions to the development of low-power superconductive digital circuits and their application to reversible-computing*		CSC
Husam Alshareef *for the development of nanoscale materials for device applications and their deployment in volume production*		NANO
Tian-ling Ren *for contributions to fabrication and application of 2D materials*	NANO	NANO
John Yeow *for contributions to the understanding and applications of nanostructures and nanocomposites*	NANO EMBED	NANO

Omer Inan *for contributions to wearable systems for health sensing*	EMB	SEN
Michael Mcshane *for contributions to biomaterials-based optical biosensors*	SEN EMB	SEN
Beibei Wang *for contributions to wireless sensing and cognitive communications*	COM SP	SEN