Awards Presentation
Remise des prix
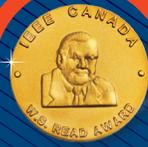
IEEE Canada
The Institute of Electrical and Electronic Engineers Inc.

28th

Canadian Conference on Electrical and Computer Engineering

28ième

Conférence canadienne de génie électrique et informatique

May 4 – 4 mai 2015
Halifax, NS

Awards Programme

Awards presented in reverse order

IEEE CANADA ACHIEVEMENT AWARDS

A.G.L. MCNAUGHTON GOLD MEDAL
for exemplary contributions to the engineering profession
POWER MEDAL
for important contributions to the field of electric power engineering
C.C. GOTLIEB (COMPUTER) MEDAL
for important contributions to the field of
computer engineering and science
J.M. HAM (OUTSTANDING ENGINEERING EDUCATOR) MEDAL
for outstanding contributions to engineering education

IEEE CANADA SERVICE AWARDS

W.S. READ OUTSTANDING SERVICE AWARD
for outstanding and sustained service to
IEEE Canada and the Institute
E.F. GLASS WESTERN CANADA MERIT AWARD
for meritorious service in western Canada at the
local IEEE Section and Area level
M.B. BROUGHTON CENTRAL CANADA MERIT AWARD
for meritorious service in central Canada at the
local IEEE Section and Area level
J.J. ARCHAMBAULT EASTERN CANADA MERIT AWARD
for meritorious service in eastern Canada at the
local IEEE Section and Area level

2015 IEEE Canada
A.G.L. McNaughton Gold Medal

For outstanding contributions to pattern recognition and leadership in intelligent systems development

Mohamed Kamel (LFIEEE)

Mohamed Kamel (LFIEEE) is Professor of Electrical and Computer Engineering at the University of Waterloo, where he holds a University Research Chair in Cooperative Intelligent Systems and is the Director of the Centre for Pattern Analysis and Machine Intelligence. He received the Ph.D. from the University of Toronto. Before starting his academic career, he worked as senior principal engineer at NCR Canada and obtained an inventor award for his work on bar codes. Dr. Kamel is co-founder of Virtek Vision Inc. of Waterloo (acquired by Gerber Technology Co). He served as member of the board from 1992-2008 and VP research and development from 1987 to 1992.

Dr. Kamel has made solid contributions to research and education in image analysis, machine intelligence and pattern recognition. He pioneered the introduction of the concepts of cooperative and multi-clustering, feature-based aggregation and document index graph. Dr. Kamel has applied these contributions to engineering problems in data mining, financial document processing and robotics. He has published more than 500 peer-reviewed articles in journals and conference proceedings. Papers coauthored by Dr. Kamel and his students have received best paper awards in international journals and conferences.

Dr. Kamel's contributions and accomplishments have earned him recognition in international and national organizations. He is Fellow of the Royal Society of Canada, Life Fellow of IEEE, Fellow of the Engineering Institute of Canada (EIC), Fellow of the Canadian Academy of Engineering (CAE) and Fellow of the International Association of Pattern Recognition (IAPR). Dr. Kamel is a member of Professional Engineers Ontario.

2015 IEEE Canada
Power Medal

For outstanding contributions to the practice of power system protection and planning

William Kennedy (LSMIEEE)

W.O. (Bill) Kennedy (LSMIEEE) is President and Principal of b7kennedy & Associates Inc., a consultancy he established in 2005 to provide service to companies connecting to the electric power grid. In addition to his consulting practice, Bill presents seminars on power system basics to non-power system engineers. Previously, he was a principal engineer for Alberta Electric System Operator (AESO) and director of measurement and protection at Electricity Supply Board International (ESBI) Alberta Ltd. Graduating in Electrical Engineering from the University of New Brunswick in 1969, he has since completed graduate courses in power system engineering and management.

Bill's ground-breaking accomplishments are seen throughout most of the Canadian electricity grid, having worked in nine provinces. He pioneered a procedure enabling distance relay-testing insitu at substations, rather than costly shop-floor assessment. On the 500 kV transmission line connecting Alberta to British Columbia, he demonstrated that import could be raised to 600 MW without the requirement for load shed in Alberta. Also in that province, he developed transmission required to incorporate 3,400 MW of wind-based energy into the grid, and developed the first protection standard, based on a stakeholder consultative approach. At Saskatchewan Power Corporation, Bill led the development of a 455 km 138 kV transmission line effectively incorporating northern communities into the SaskPower grid.

Bill served as President/Director for IEEE Canada/IEEE Region 7 for 2004-2005 and as IEEE Director Division VII (Power & Energy Society) for 2006/2007. He is a Fellow of the Engineering Institute of Canada (1998) and was the University of New Brunswick's Dineen Lecturer in 2009.

2015 IEEE Canada E.F. Glass
Western Canada Merit Award

For exemplary and long service to the Vancouver Section and chapters

Ljiljana Trajkovic (FIEEE)

Ljiljana Trajkovic (FIEEE) received the Dipl. Ing. degree from University of Pristina, Yugoslavia, the M.Sc. degrees in electrical engineering and computer engineering from Syracuse University, NY, and the Ph.D. degree in electrical engineering from University of California at Los Angeles. She is currently a Professor in the School of Engineering Science at Simon Fraser University.

Active in the IEEE Circuits and Systems (CAS) Society since 1995, soon after coming to Vancouver in 1998, Dr. Trajkovic worked on bringing the IEEE International Symposium on Circuits and Systems (ISCAS) to the city. To support the bid, she founded a joint Chapter with Victoria Section. She and her team led a very successful ISCAS 2004 and since then have received the IEEE Vancouver Section 2013 and 2012 Small Technical Chapter Awards and the 2014 IEEE CAS Society Regions 1-7 Chapter of the Year Award. Dr. Trajkovic also organized and chaired other international conferences and workshops such as Tesla Day at SFU in 2006. For her contributions, Vancouver Section has recognized her with its 2012 Centennial Volunteer and 2010 Outstanding Service Awards. She is President of the IEEE Systems, Man, and Cybernetics (SMC) Society and Past President of the IEEE CAS Society.

Dr. Trajkovic's additional honours include: the Canadian Pacific Railway Medal (2007) from The Engineering Institute of Canada, a Research Fellowship of the BC Advanced Systems Institute, Fellowship of the Japan Society for the Promotion of Science, NSF Visiting Professorship for Women Grant, Zonta International Amelia Earhart Fellowship, and IIE Fulbright Fellowship.

2015 IEEE Canada
C.C. Gotlieb Medal

For exceptional contributions in wireless networks and mobile computing systems

Azzedine Boukerche (FIEEE)

Azzedine Boukerche (FIEEE) is a Professor of Computer Science and holds a Canada Research Chair Tier-1 position at the University of Ottawa. He is the Scientific Director of NSERC-DIVA Strategic Research Network and the Director of PARADISE Research Laboratory at the university.

Dr. Boukerche is an internationally recognized scholar and world-class authority in the area of distributed computing and mobile networking. For more than two decades, he has been pushing the knowledge frontiers on how wireless sensor networks, intelligent vehicular networking, wireless multimedia, smart cars and smart roads can further improve the design of the next generation of connected and autonomous vehicles and intelligent transportation systems. This technology will change the way we live and interact daily with our environment. He has also led innovations in augmented virtual reality technologies for the design of next-generation training facilities for first responders.

Dr. Boukerche has published extensively with 14 Best Paper Awards. He is the editor of three bestseller books on mobile computing, ad hoc and sensor networks. He is the recipient of the Cátedra de Excelencia from Universidad Carlos III de Madrid, the Ontario Distinguished Researcher Award, the Premier of Ontario Research Excellence Award, the G. S. Glinski Award for Excellence in Research, as well as the IEEE Communication Society (ComSoc) Leadership and Service Award, the IEEE Computer Society (IEEE CS) Golden Core Award, and a CS-sponsored IEEE Meritorious Service Award. Dr. Boukerche is Fellow of the IEEE, the Engineering Institute of Canada, the Canadian Academy of Engineering and the American Association for the Advancement of Science.

2015 IEEE Canada
J.M. Ham Medal

For establishing a world class teaching and research program in applied electromagnetic engineering

Yahia Antar (LFIEEE)

Yahia Antar (LFIEEE) is the Canada Research Chair in Electromagnetic Engineering. He is a professor at the Royal Military College of Canada (RMCC), Vice Dean for defence and security research. He holds a cross-appointment at Queen's University. Before joining RMCC, Dr. Antar worked at NRC from 1979-1987. He received the B.Sc. (Hons.) degree in 1966 from Alexandria University, Egypt, and the M.Sc. and Ph.D. degrees from the University of Manitoba, in 1971 and 1975, respectively, all in electrical engineering.

Dr. Antar's commitment to mentoring his graduate students has earned him the profound admiration of both his peers and those he teaches. In 2012 he was honoured by the RMCC Class of 1965 with its Teaching Excellence award. He has supervised and co-supervised more than 85 Ph.D. and M.Sc. theses, of which several have received the Governor General of Canada Gold Medal, as well as many best paper awards in major international symposia. As an IEEE Antennas and Propagation Society (IEEE APS) Distinguished Lecturer, he generously accepts invitations from ECE departments across the country, and from Chapters worldwide.

A recipient of the IEEE Canada Fessenden Medal (2014), Dr. Antar is a Life Fellow of the IEEE; he is also Fellow of the Engineering Institute of Canada and the Electromagnetic Academy. He was elected by the Council of the International Union of Radio Science as Vice President in 2008, and again in 2014. In 2011, Dr. Antar was appointed Member of the Canadian Defence Science Advisory Board. In 2012 he received the Queen's Diamond Jubilee Medal.

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2015 IEEE Canada M.B. Broughton
Central Canada Merit Award

For excellent service to the Toronto Section and chapters

Alexei Botchkarev (SMIEEE)

Alexei Botchkarev (SMIEEE) is a Senior Information Management Advisor with the Health Data Branch, Ministry of Health and Long-Term Care (Government of Ontario), and an Adjunct Professor with the Computer Science Department at Ryerson University. He holds B.Eng. five-year degree from the Kiev Aviation Engineering Academy, Ukraine (1975) and Ph.D. from the aerospace R&D Institute, Russia (1985). Alexei is a public service practitioner, consultant and researcher with contributions to simulation, implementation and evaluation of complex systems in information management and aerospace. Results of his research are published in more than 70 journal papers, professional magazine articles, technical reports and chapters in three books.

A passionate and committed IEEE volunteer, Alexei has been a member of the IEEE Toronto Section Executive Committee for more than 10 years. In 2008-2009, as Section Chair, he spearheaded preparations and delivery of the 2009 IEEE Toronto International Conference – Science and Technology for Humanity; it was an IEEE "first" -- using web conferencing to seamlessly integrate on-site and on-line participation. He serves as Founding Chair of the Toronto Section Systems Chapter, since 2011. Alexei's long-standing contributions to the Section were recognized through receipt of its Exemplary Service Award in 2013. IEEE's publications also draw his support. He was IEEE Canada Newsletter Editor in 2006/2007, and is currently a member of the IEEE The Institute›s Editorial Advisory Board.

Alexei is a Project Management Professional (PMP) certified by the Project Management Institute, and is a member of the Institute for Operations Research and the Management Sciences, and the Statistical Society of Canada.

2015 IEEE Canada J.J. Archambault
Eastern Canada Merit Award

For exemplary service to Newfoundland and Labrador Section and the IEEE Canadian Foundation

Lori Hogan (MIEEE)

Lori Hogan (MIEEE) is the Project Manager of OmOptics AIF, an optical communications project, at Memorial University, Newfoundland. Previously, Lori was a project engineer at C-Core working on software development for remote sensing applications from 2006 to 2014. Lori graduated with the Bachelor of Engineering in Computer Engineering in 2003 from Memorial University.

Lori's high activity in IEEE began as a student at Memorial University and has never stopped. She was Student Branch Vice-Chair 1999/2001; her leadership earned her the IEEE Newfoundland and Labrador Section Award in 2003. Since graduating she has taken on important roles at both the regional and section levels. She was the Newfoundland-Labrador GOLD/WIE representative in 2006/2007 culminating in becoming the Region 7 GOLD Coordinator for 2007. Lori was Chair of the IEEE Newfoundland and Labrador Section in 2010/2011, having been vice-chair in 2008/2009. She was also an MGA History Committee Member for 2008/2009. She is currently the section WIE representative and a member of the IEEE Canadian Foundation since 2011. Beginning January, 2015 she is the Region 7 Student Activities Committee Chair, being very familiar with student branch needs, having been Region 7 Student Rep in 2004/2006.

Lori was the recipient of the 2006 IEEE Canada Women in Engineering Prize, which recognizes female IEEE Canada members who received their first professional degree within the last ten years and are active in IEEE activities. In addition to her involvement in IEEE, Lori is the current President of Women in Science and Engineering (WISE) Newfoundland and Labrador and was a Director from 2003-2006.

2015 IEEE Canada
W.S. Read Outstanding Service Award

**For outstanding and sustained dedication in
serving IEEE Canada and its members**

Raed Abdullah (SMIEEE)

Raed Abdullah (SMIEEE) is currently a Strategic Planning Engineer with the Hydro Ottawa Assets team. He received the B.Sc. in Electrical Engineering from the University of Ottawa in 1989. With Hydro Ottawa since 1991, he has spearheaded many initiatives in a wide variety of roles. Raed is an active member of high-profile working groups in Smart Grid, Distributed Generation, and plug-in EV Readiness and served on the Standard Council of Canada's Smart Grid Task Force.

Raed has been an active IEEE Canada volunteer for more than 15 years. A co-founder of the Electrical Power Symposium in 2001, he was the symposium's engineering chair from 2002-2005 and education activities chair in 2006.

The highly successful conference continually increased its scope and attendance, becoming EPEC in 2007; it is now an IEEE Canada-sponsored annual conference. Raed served as Region 7 secretary from 2011-2013 and was also a member of the MGA Individual Benefits and Services Committee, 2011/2012. He was the Vice-Chair of the inaugural IHTC 2014 conference and is serving again on IHTC 2015. He has taken a strong leadership role on numerous Ottawa section committees and societies. As chair of Ottawa section in 2009 and 2010, he led the section in winning the 2010 MGA Large Section Award.

Raed is the recipient of the 2014 IES PES Chapter Outstanding Engineering Award and 2011 MGA Achievement Award. He is currently the IEEE Canada External Relations Chair, Chair of the Reliability and Power Electronics Society Joint Ottawa chapter and treasurer of the Ottawa chapter of PES. .

IEEE Canada Members elected as
2015 EIC Fellows

RAMACHANDRA ACHAR (FIEEE)—Ottawa, ON
for contributions to the advancement of computer-aided design tools and methodologies for high-speed electronic designs

AMBRISH CHANDRA (FIEEE)—Montreal, QC
for advancement of theory and control algorithms for power electronics converters and integration of renewable energy

COLIN CLARK (SMIEEE)—Ottawa, ON
for leadership in the design and operation of renewable energy systems

BRANISLAV DJOKIC (FIEEE)—Ottawa, ON
for developing collaborative ties with universities, government labs and industry, and contributions to electrical metrology at low frequencies

RICHARD HORNSEY (SMIEEE)—Toronto, ON
for exceptional leadership in engineering education and research in integrated image-sensor systems

ANDREW ORVILLE JONES (LSMIEEE)—Stony Plain, AB
for management of all phases of the design, procurement, construction and commissioning of thermal generating stations

AMIR KHAJEPOUR (MIEEE)—Waterloo, ON
for contributions to vehicle mechatronics

PETER XIAOPING LIU (SMIEEE)—Ottawa, ON
for leading research in haptics and teleoperation

MANOJ SACHDEV (FIEEE)—Waterloo, ON
for exceptional contributions to integrated circuit design and manufacturing

JOHN YEOW (SMIEEE)—Waterloo, ON
for leadership and education in the development of nanotechnology-based multi-modality imaging systems

ZENG HONG ZHU (SMIEEE)—Toronto, ON
for contributions to dynamics and control of tethered spacecraft systems and engineering mechanics

Julian C. Smith Medal
ALBERTO LEON-GARCIA (FIEEE)—Toronto
for contributions to application platforms and smart infrastructure, and for authoring leading textbooks in the area

CPR Medal
WAHAB ALMUHTADI (SMIEEE)—Ottawa
in recognition of many years of outstanding volunteer service to the electrical engineering community

IEEE Canada Members elected as
2015 IEEE Fellows

AZZEDINE BOUKERCHE (FIEEE) — Ottawa, ON
for contributions to communication protocols for distributed mobile computing and wireless sensor networks

JOSEF DROBNIK (FIEEE) — Kingston, ON
for development of high performance power converters in industrial applications

RANDY ELLIS (FIEEE) — Kingston, ON
for contributions to image guided surgical technology

EKRAM HOSSAIN (FIEEE) — Winnipeg, MB
for contributions to spectrum management and resource allocation in cognitive and cellular radio networks

SAFA KASAP (FIEEE) — Saskatoon, SK
for contributions to photoconductive sensors for x-ray imaging

DEEPA KUNDUR (FIEEE) — Toronto, ON
for contributions to signal processing techniques for multimedia and cyber security

GERARD LACHAPELLE (FIEEE) — Calgary, AB
for contributions to signal processing for global navigation satellite systems

HENRY LEUNG (FIEEE) — Calgary, AB
for contributions to chaotic communications and nonlinear signal processing

BAOCHUN LI (FIEEE) — Toronto, ON
for contributions to application-layer network protocols and network coding

JOHN LONG (FIEEE) — Delft, The Netherlands
for the development of on-chip and silicon radio-frequency integrated circuits

SYLVAIN MARTEL (FIEEE) — Montreal, QC
for contributions to medical micro- and nano-robotics

LUIS MARTI (FIEEE) — Toronto, ON
for contributions to modeling and simulation of electromagnetic transients

RASHEEK RIFAAT (FIEEE) — Calgary, AB
for contributions to protection of industrial power systems

SAFIEDDIN SAFAVI-NAEINI (FIEEE) — Waterloo, ON
for contributions to gigahertz to terahertz integrated antenna systems

RICHARD SCHREIER (FIEEE) — Toronto, ON
for contributions to delta-sigma data converters

GREGORY STEWART (FIEEE) — North Vancouver, BC
for contributions to model-based control of industrial systems

YU SUN (FIEEE) — Toronto, ON
for contributions to automated manipulation of biological cells

RIDHA TOUZI (FIEEE) — Ottawa, ON
for contributions to design and calibration of polarimetric synthetic aperature radar

GAOZHI XIAO (FIEEE) — Ottawa, ON
for contributions to the development of safety and security monitoring instrumentation and measurement technologies

NAVID ZARGARI (FIEEE) — Cambridge, ON
for contribution to medium voltage drive technologies and applications

IEEE Control Systems Award
BRUCE FRANCIS (LFIEEE) — Toronto, ON
for pioneering contributions to H-infinity, linear-multivariable, and digital control

Who Will You Nominate for 2016?

The accomplishments of our eight Major Award recipients speak for themselves, as summarized in their foregoing biographies. But it was words on a nomination form that launched each of their journeys to the IEEE Canada podium.

Why nominate? When we celebrate the successes of our colleagues, we can also celebrate our membership in this most special of Regions in IEEE, Region 7, also known as IEEE Canada—special because we are the only Region whose geographic boundaries totally encompass a single country, and only that country.

To find the best and the brightest, IEEE Canada depends upon nominations from across our diverse spectrum of technical interests, in both established fields and those just emerging. We also recognize those who give of their time and energy to help sustain and grow our organization. Without the countless unpaid hours, there would be no IEEE Canada to give out Awards. While experience gained in volunteering is its own reward, a public "thank-you" never hurts. If an IEEE colleague has made a difference, let us know how.