The Canadian Academy of Engineering

L'Académie canadienne du génie

Communiqué de presse

Intronisation de quarante-deux nouveaux Membres au sein de l'Académie canadienne du génie

Ottawa – (Le 13 juillet 2009) – Le président John Leggat a procédé à l'intronisation de 42 nouveaux Membres au sein de l'Académie canadienne du génie, le 13 juillet 2009. La cérémonie s'est déroulée à Calgary, dans le cadre de l'Assemblée générale annuelle 2009 de l'Académie. À cette occasion, M. Leggat déclarait : « L'Académie maintient sa tradition qui est d'élire des ingénieurs exceptionnels. Ces nouveaux Membres renforceront la prépondérence de l'Académie et l'aideront à poursuivre son rôle qui est de fournir le point de vue des ingénieurs sur des enjeux d'importance nationale et mondiale. »

L'Académie canadienne du génie se compose de plusieurs des ingénieurs les plus expérimentés du pays qui ont manifesté leur dévouement en faveur de l'application des principes de la science et du génie dans l'intérêt du pays et de ses entreprises. L'Académie est un organisme indépendant, autonome et à but non lucratif qui a été fondé en 1987. Les membres de l'Académie sont nommés et élus par leurs pairs à titre de Membres honoraires, en fonction de leurs réalisations exceptionnelles et de leurs longs états de service au sein de la profession d'ingénieur. Les Membres de l'Académie s'engagent à faire en sorte que les connaissances expertes en génie du Canada soient appliquées pour le plus grand bien de tous les Canadiens et de toutes les Canadiennes.

L'Académie canadienne du génie travaille en étroite collaboration avec les autres principales académies, au Canada et sur le plan international. Elle est membre fondatrice du *Conseil des académies canadiennes*, en collaboration avec la *Société royale du Canada* et l'*Académie canadienne des sciences de la santé*. L'Académie travaille aussi en étroite collaboration avec les autres membres du *Forum des leaders du génie canadien* qui regroupe des représentants d'*Ingénieurs Canada*, de l'*Institut canadien des ingénieurs*, de l'*Association des firmes d'ingénierie du Canada*, du *Conseil canadien des doyens d'ingénierie* et de la *Fédération canadienne des étudiants et étudiantes en génie*, tous oeuvrant afin d'assurer un Canada plus sûr, plus propre, plus sain et plus compétitif. L'Académie est aussi membre actif de l'*International Council of Academies of Engineering and Technological Sciences (CAETS)*, qui comprend 25 autres organismes nationaux semblables situés partout au monde.

Des citations sont annexées pour chacun des nouveaux Membres intronisés, ainsi que le nom de certaines des sociétés et associations auxquelles chaque nouveau membre a indiqué participer.

Pour de plus amples renseignements ou pour obtenir une entrevue, communiquer avec :
Michael A. Ball, MACG, P. Eng.
Directeur général
Tél. : (613)235-9056
Courriel : maball@acad-eng-gen.ca

L'ACADÉMIE CANADIENNE DU GÉNIE

L'Académie canadienne du génie est l'organisme national par l'entremise duquel les ingénieurs les plus chevronnés et expérimentés du Canada offrent au pays des conseils stratégiques sur les enjeux d'importance primordiale.

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La mission de l'Académie canadienne du génie est d'assurer le leadership en matière de conseils en génie et d'accroître, par l'application et l'adaptation des principes de l'ingénierie et de la science, la promotion de l'ingénierie, ainsi que le bien-être et la création de la richesse au Canada.

Plus particulièrement, l'Académie :

- s'exprime sur les enjeux d'importance, au Canada et à l'étranger, afin de faire ressortir les questions nouvelles au sujet desquelles l'ingénierie a un rôle à jouer, elle commente quant à leur importance et leurs répercussions et, de façon plus générale, elle s'efforce de mieux faire comprendre le besoin d'excellence en génie dans l'exercice, la recherche, le développement, l'innovation et l'enseignement professionnel, pour l'économie canadienne.

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Tel/Tél: (613) 235-9056 Fax/Télécopieur: (613) 235-6861
info@acad-eng-gen.ca www.acad-eng-gen.ca

- offre au gouvernement, à l’industrie, au milieu universitaire et à l’ensemble des Canadiens et des Canadiennes, des conseils appropriés sur les enjeux particuliers qui intéressent le domaine de l’ingénierie,

- favorise la reconnaissance de l’excellence en génie en élisant au sein de l’Académie des Membres choisis parmi les ingénieurs exceptionnels et les plus expérimentés du Canada, faisant ainsi ressortir les contributions des ingénieurs au mieux-être des Canadiens et des Canadiennes ainsi qu’au développement économique du pays,

- participe de façon appropriée, active et efficace avec des organismes nationaux et internationaux aux vues similaires, afin de créer une voix commune sur les questions importantes pour le Canada et pour le monde.

Juillet 2009

CITATIONS 2009

Barry J. Adams

Barry Adams has had an outstanding academic career, first at McGill University and then at the University of Toronto where he served as both Chair of Environmental Engineering and Chair of the Department of Civil Engineering. He has consulted widely in Canada and abroad on water resources and environmental engineering studies. Dr. Adams has supervised over 50 graduate students and has a prolific record of contributions to scholarly and professional organizations. He has developed a variety of sophisticated models that have been used to examine situations of engineering importance that integrate scientific understanding with engineering insight and economic realities.

PEO, CSCE, EIC, ASCE, AWWA

Gordon B. Agnew

Dr. Agnew has been teaching Electrical and Computer Engineering at the University of Waterloo for over 25 years. He has also been conducting research in the areas of networks, cryptography and computer security for many years. As a result of this work, Dr. Agnew and two colleagues founded Certicom Corporation in 1985. Certicom has risen to be the world leader in Elliptic Curve based cryptographic systems, which are critical for the security of wireless and low power networks. Dr. Agnew has demonstrated the ability to bridge the gap between Academia and Industry.

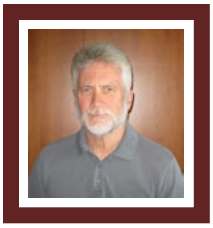
PEO, IEEE, ICA

Cristina Amon

Professor Cristina Amon is Dean of the University of Toronto's Faculty of Applied Science and Engineering. Her research has advanced the scientific foundation of heat transfer enhancement by flow destabilization and nano-scale thermal transport, and she has made pioneering contributions to concurrent thermal designs, innovation in electronics cooling and transient thermal management of wearable computers. She has served numerous professional societies with distinction, and demonstrated exceptional dedication to outreach and to diversity in engineering. While at Carnegie Mellon she developed two engineering outreach programs for under-represented groups, and has made great strides in increasing diversity within Engineering at U of T since her appointment as Dean.

PEO, ASME, RAE (Spain), NAE, ASEE, AAAS, IEEE

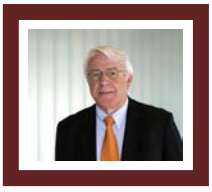
William Bawden



Professor Bawden is an educator, researcher and practitioner in applied rock engineering for the mining and civil engineering communities in Canada and internationally. His former students hold leading positions in mining and consulting engineering firms in Canada and abroad. Professor Bawden's research work has been focused primarily on the design and support of large underground excavations in rock primarily in the mining sector. Mining is a critical component of the Canadian economy. Professor Bawden's work has had, and continues to have, a direct and positive impact on mine productivity, profitability and safety. He has published his research work broadly and has developed new tools that are used by mines around the world to enhance mine safety and productivity.

PEO, OSPE, CIM, IRMMS, SME

Michael P. Collins



Professor Michael Collins, of the Department of Civil Engineering at the University of Toronto, has made outstanding contributions to the field of structural engineering as an educator, researcher, and engineer. His analytical and experimental research contributions on the shear behaviour of reinforced concrete (particularly his Modified Compression Field Theory) have received international recognition, and his theories have been incorporated into the design specifications of the Canadian Standards Association and the American Association of State Highway and Transportation Officials. Professor Collins is also a gifted educator who has received numerous awards in recognition of his commitment to providing exceptional instruction to the next generation of Canadian engineers.

PEO, EIC, CSCE, ACI

Robert L. Day

Dr. Robert Day has been a key player in the doubling of the size and improving the ranking of the Schulich School of Engineering (SSE). He has been a leader of several major SSE and University of Calgary initiatives involving curriculum redesign, computer, software, biomedical, environmental and design engineering programs and specializations, and the advancement of female students and faculty in engineering. His research and professional service in the improvement of building materials has also had a significant impact on engineering in Canada and on the quality of life of people around the globe.

APEGGA, CSA, ASTM, ACI

John Eastman

John Eastman has over 40 years of engineering experience that encompasses management, planning, design and construction of major rail, transit, highway, marine, municipal and sports projects including, notably, automated rapid transit projects and detailed design of new underground subway facilities in several countries and of Canada's 2010 Olympic and Paralympic Winter Games venues. As a result of his engineering and project management leadership contributions, millions of transit riders and highway users are able to travel safely and efficiently to their destinations daily in Vancouver, Toronto, Mexico City, Hong Kong and England.

APEGBC, IHT (UK), CEI (UK)

Abdulmotaleb El Saddik

Abdulmotaleb El Saddik is a Professor and University Research Chair at the University of Ottawa. He earned international reputation in the multimedia communications area, and, in particular, in the field of haptic, audio, and video multimedia collaborative protocols and their applications. El Saddik's pioneering work on haptics based identification led to the development of innovative technologies to enhance the authenticity of users and their performance in haptic surroundings in collaborative multimedia environments. He is a Fellow of IEEE. He is a highly regarded member of the international scientific community, actively involved in the organization of many ACM and IEEE international events and Editorial Boards.

PEO, ACM, IEEE

Peter Englezos

Dr. Peter Englezos of UBC is a very active researcher in several industrial and academic areas relevant to two important sectors of the Canadian economy: energy and paper. He is an international authority on gas hydrates, an important area in the development of innovative clean energy technologies. He has contributed significantly to the field – particularly his work on thermodynamics and kinetics of gas hydrates. He is also a well-recognized expert on several aspects of papermaking chemistry, contributing technology developments that enable high-value paper manufacturing. His honours include Keio University's Tokyo Electric Power Company Endowed Chair and UBC's Professorship in Advanced Papermaking. He served as an expert for the Council of the Canadian Academies in assessing gas hydrates as an energy resource and chaired the 6th International Conference on Gas Hydrates in 2008.

APEGBC, CSChE, AIChE, PAPTAC

Paul Fazio

Paul Fazio is internationally known for his outstanding contributions to building engineering, science, and education, from innovative basic designs to whole building envelopes and related computerization, together with new building concepts. Founder of the well-known Centre for Building Studies at Concordia University, excelling in both applied research and services to the building industry, he has also obtained wide recognition for building engineering as an academic discipline which he established in Canada. He is still very active in professional associations and in research.

PEO, OIQ, EIC, ASCE, CSCE, IABP

Fadhel M. Ghannouchi

Fadhel’s noteworthy achievements include more that 20 years of teaching and research work in the area RF and microwave engineering; he made numerous contributions related to the field of microwave theory and techniques including devices, circuits, signal and systems. For the last twenty years his research has been mostly directed towards testing, modeling, designing, and building high performance RF circuits and sub-systems for biomedical, wireless and satellite communication systems. As a result of his extensive R&D activities, he published extensively and holds 10 patents (3 pending). His excellence in research has been recognized internationally through fellowship in the IEEE.

APEGGA, IEEE, IET (UK), EIC

Carl Haas

Carl Haas' national and international prominence in construction, infrastructure and transportation technologies and management have been gained through the development of a widely used modularization decision support tool, wireless sensor network applications in civil engineering, field deployed robotics technologies, automated 3D data fusion models, revolutionary materials tracking technologies, and critical lift planning for industrial and heavy construction projects. His professional and societal contributions and honours include key roles in the Natural Sciences and Engineering Research Council (NSERC) of Canada, the American Society for Civil Engineering (ASCE), the US National Academies, and the International Association for Automation and Robotics in Construction (IAARC).

PEO, CSCE, ASCE, IAARC

Wolfgang J.R. Hoefer

Wolfgang J.R. Hoefer enjoys worldwide recognition as a scholar, author, educator and technical leader in Microwave Engineering and Computational Electromagnetics. He laid the foundations for E-plane circuit design by translating electromagnetic field theory and mathematical formalism into novel computer-aided design tools. He pioneered time domain modeling of analog and high-speed circuits, and made seminal contributions to the principal time domain numerical methods employed today: Transmission Line Matrix (TLM) and Finite Difference Time Domain (FDTD) Modeling. The hallmark of his research is his capacity to translate scientific insight into powerful techniques and vital design tools that have become industry standards.

IEEE, RSC, Acatech, EMA

André Ivanov

André Ivanov, Head of the Department of Electrical and Computer Engineering at UBC, is an expert and innovator in the field of the design and testing of very large scale integrated (VLSI) circuits. His achievements have led to numerous new and advanced technologies that have greatly impacted the shape of VLSI test technology processes worldwide affecting the entire semiconductor industry. He is Fellow of the IEEE and was recipient of the 2006 Outstanding Contribution Award of the IEEE Computer Society Technology Technical Council for achievement of major value and significance to the IEEE Computer Society.

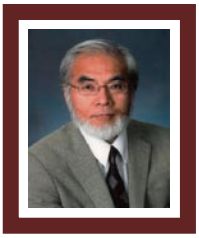
APEGBC, IEEE

Safa Kasap

Safa Kasap has made extraordinary contributions to the science and technology of amorphous semiconductors, in particular in pioneering engineering contributions to x-ray photoconductors used in modern digital flat panel direct conversion x-ray image detectors for medical imaging; and in advances in understanding excess noise in amorphous semiconductors. Professor Kasap is well-recognized for his distinct contributions to engineering education and training through two well-known textbooks, Principles of Electronic Materials and Devices (Third Edition) and Optoelectronics and Photonics: Principles and Practices with translations to other languages. He is the principal founder of the prestigious conference series International Conference on Optical, Optoelectronic and Photonic Materials (ICOOPMA).

APEGS, RSC, EIC, APS, IET (UK)

Masahiro Kawaji



Masahiro Kawaji has devoted many years to research on flow and thermal problems in chemical, nuclear, pulp and paper, aerospace and energy industries. Through numerous industry and government-funded projects and many publications, the results generated have had a significant impact on economic development and on sustaining the competitiveness of Canadian industry. For promoting international cooperation in engineering research by organizing and chairing international conferences, serving on scientific, organizing or advisory committees of numerous international conferences, working groups, and government committees.

PEO, CIC, ASME, AIChE, ANS

Venkatesh Kodur

Dr. Kodur has made significant contributions and earned recognition for his research and development activities in structural, material and fire areas. He has published over 250 technical papers, developed unique research program in structural fire safety at NRC Canada and at Michigan State University in US, trained graduate students, and developed fire design guidelines that have been incorporated in numerous codes and standards. Dr. Kodur, Fellow of ASCE and ACI, has won many awards and was the only non-American invited to be part of the ASCE/FEMA expert's team for WTC building investigation. He has transferred, through media interviews, key-note presentations and blue ribbon panels, research findings to public, has raised the awareness of engineering profession and has showcased the world-class research in Canadian and US institutions.

PEO, ACI, ASCE, SFPE

Chandra Kudsia

Dr. Kudsia is a distinguished scientist, electrical engineer, teacher and author whose sustained leadership in developing satellite communications subsystems has been internationally recognized. Among his most notable contributions to satellite communications was the development and introduction of contiguous multiplexing networks. This achievement yielded a leap in power and spectral efficiency, thus significantly lowering the cost per channel of satellite communications. This approach has become the conventional basis for payload architectures and the fundamental core of all satellite communications systems. Under his technical leadership, COM DEV became a world leader for satellite multiplexers, capturing two-thirds of the RF multiplexer market for communications satellites in the free world.

PEO, IEEE, AIAA, EIC

Hadi Mahabadi

Dr. Hadi Mahabadi has delivered outstanding technical and leadership contributions to the Xerox Corporation. Highlights among his many contributions include material technology innovations such as reactive extrusion toner and semi-suspension polymerization technologies that were successfully commercialized. His leadership accomplishments include leading successful development and delivery of many material and ink jet technologies including Emulsion Aggregation Toner and next generation of solid ink that has led to the invention of world class products and generated significant value for Xerox. As head of a research centre facility for Xerox and through interaction and participation in various task force committees and organizations, Dr. Mahabadi has been a major influence in the development and advancement of Canada's Science and Technology agenda, specifically in nanotechnology and green chemistry.

PEO, CIC, IUPAC

Sylvain Martel

Sylvain Martel, ancien commandant de vaisseau de guerre de la marine canadienne, est un expert en génie biomédical reconnu mondialement qui a réalisé nombre de premières mondiales en mécatronique, en électronique, en cardiologie et implants pour interfaces cerveau-machine, en chirurgie a distance, et en instrumentation médicale. Il a été un pionnier dans plusieurs domaines, plus récemment en navigant des microdispositifs dans le système vasculaire pour le traitement du cancer et dans le contrôle par ordinateur de bactéries pour plusieurs applications. Depuis plusieurs années, il occupe la vedette dans le domaine de la nanorobotique à des fins médicales, tant par ses nombreux brevets d'invention que par ses présentations spécialisées à un très grand nombre de congrès internationaux, sa forte participation à de nombreuses sociétés savantes, son rôle d'évaluateur spécialisé de plusieurs revues scientifiques prestigieuses, d'éditeur scientifique de grandes maisons d'édition, d'auteur de plusieurs chapitres de manuels techniques, de directeur des études auprès d'un très grand nombre de finissants en génie, ainsi que par sa Chaire de recherche du Canada, ses subventions d'infrastructure de recherche totalisant plusieurs millions de $ à ce jour, ainsi que par ses nombreuses innovations.

Sylvain Martel, a former warship commander in the Canadian Navy, is a world renowned expert in biomedical engineering, having achieved many world premieres in mechatronics, electronics, cardiology and implants for brain-machine interface, remote surgery, and medical instrumentation. He pioneered in many fields, most recently by navigating microdevices in the vascular system for cancer therapy and in the control of bacteria by computer for several applications. He has been in the spotlight for a number of years in the field of medical nanorobotics, as much for his numerous patents of invention than for his expert presentations at a huge number of international conventions, his deep involvement in many learned societies, as a special reviewer for several prominent scientific journals, as scientific editor for leading publishers, as author of many chapters in technical manuals, as a studies' director for a very significant number of engineering students, as well as for his Canada Research Chair, his infrastructure research grants totalling to date several millions $, and his many innovations.

OIQ, IEEE, SCFR

Michel Meunier

Michel Meunier est un spécialiste en micro/nano-ingénierie des matériaux par lasers pour des fins d'applications en nanotechnologie, en biomédical et en microélectronique. Titulaire d'une prestigieuse Chaire de recherche du Canada de niveau I, il a mis au point de nouvelles techniques de fabrication de nanostructures plasmoniques pour l’imagerie biomédicale et le traitement du cancer et a crée de nouvelles méthodes de modification de dispositifs microélectroniques par laser. Il se distingue aussi par ses récentes découvertes dans le domaine des biocapteurs plasmoniques.

Michel Meunier is a specialist in the field of laser micro/nano engineering of materials for nanotechnology, biomedical and microelectronic applications. Holder of a Tier I Canada Research Chair, he developed new plasmonic nanostructure manufacturing techniques for biomedical imaging and cancer treatment and devised new methods of changing microelectronic devices using lasers. He is also known for his recent discoveries in the field of plasmonic biocaptors.

OIQ, SPIE, OSA, MRS

Javad Mostaghimi

Javad Mostaghimi, Professor, University of Toronto, is internationally recognized for his research on thermal plasma technology and its industrial applications. His numerical models of plasma sources and thermal spray coating are widely cited and applied. He is the cofounder and director of the Centre for Advanced Coating Techniques of the University of Toronto and was the cofounder of Simulent Inc., a software and consulting company working in Asia, Europe and North America. He also cofounded Ablazeon Inc. to commercialize an innovative plasma torch which he and his co-workers developed.

PEO, ASME, CSME, IUPAC

Sethuraman Panchanathan

For contributions in multimedia computing and human-computer interfaces towards the design of assistive technologies and devices for individuals with disabilities. These contributions have global impact and have been recognized through several publications, patents and incubation of a start-up company.

PEO, IEEE, SPIE

Chul B. Park

Chul Park has identified the fundamental mechanisms of cell nucleation and growth in plastic foaming, and has designed systems that measure the critical thermophysical properties of polymer-gas mixtures. Based on his findings, a number of industrially viable foaming technologies have been developed. Park has generated technologies that have improved plastics' properties – impact strength, toughness, fatigue life, elasticity, and heat- and sound-insulation – and reduced processing costs significantly. Moreover, environmentally hazardous blowing agents have been replaced with inert gases. The transfer of knowledge and technology to industry has occurred both domestically and internationally; 200+ companies have licensed his microcellular foaming technology.

PEO, EIC, ASME, SPE, CSME

Prakash C. Patnaik

The leadership of Dr. Patnaik in Aerospace Materials Engineering has been recognized, both in private and public sector, at the national and international level. As Senior Engineering & R&D Manager at Magellan Aerospace and as Principal Research Officer and Director at the National Research Council Aerospace Research Institute he has made an outstanding contribution to Materials Science & Engineering. As the Director of the Structures & Materials Performance Laboratory his reach and influence have had a major impact on the Aeronautics both in Canada and abroad. His contributions to industry, to government led programs (HCAT), to academia and others in Materials Sciences & Engineering has placed Canadian industry at the forefront of technology in this area.

ASM International

David Plant

Dr. Plant is recognized for his exceptional contributions in designing and demonstrating optical interconnects for application in large switching and multiprocessor computing systems. In this area Dr. Plant's work stands out as the most successful demonstration of the use of optics for interconnection purposes. Dr. Plant has attained Fellow status in the IEEE and OSA for this work, produced an exemplary publication record and has licensed his technology to several companies. He is the only Principal Investigator in Canada to found and lead three research networks in the Information and Communication Technology sector.

OIQ, IEEE, EIC, OSA

M.A. Rahman

Dr. Rahman is internationally recognized for his outstanding contributions to the design, development, analysis, control and application of interior permanent magnet (IPM) synchronous motors and associated drive systems. Dr. Rahman has been repeatedly honoured by his peers for his technical contributions and leadership in promoting IPM technology worldwide, and he is the only person to receive the highest awards from four IEEE societies. His IPM design innovations have had significant economic and environmental benefits worldwide, including reducing costs to consumers and increasing energy efficiency of air conditioning systems, and he is the father of modern energy-efficient hybrid electric vehicles.

PEGNL, IEEE, EIC, IET (UK)

Rangaraj M. Rangayyan

Dr. Rangayyan has developed several original techniques for biomedical signal and image processing, including methods for the analysis of mammograms for computer-aided diagnosis of breast cancer, analysis of collagen alignment and vascular architecture to study ligament injury and healing, lossless image data compression for digital teleradiology, and diagnosis of cartilage pathology via the analysis of knee-joint vibration signals. He is the author of two books on "Biomedical Signal Analysis" and "Biomedical Image Analysis", which are being used as textbooks around the world. His works are referred to and cited extensively; he is considered to be a pioneer and a global leader in research and teaching in biomedical engineering.

APEGGA, IEEE, EIC, AIMBE, SPIE, SIIM, CMBES

Janet L. Ronsky

Dr. Janet Ronsky has made significant contributions to research and education in biomedical engineering. Her early research accomplishments were recognized with a Canada Research Chair in Biomedical Engineering awarded in 2001 and renewed in 2006; and, she continues to have noteworthy research accomplishments. She has also been the Director of the University of Calgary's Centre for Biomedical Engineering Research and Education since 2003, influencing the education of many engineering students. The university is internationally recognized for its biomedical engineering research and education, due in no small part to Dr. Ronsky's efforts. She is also an outstanding teacher with several teaching excellence awards.

APEGGA, CSB, ASME, ISB

Jonathan Rose

Professor Jonathan Rose was Chair of the Edward S. Rogers Sr. Department of Electrical and Computer Engineering at the University of Toronto, from 2004 to 2009. He is a pioneer and world leader in the area of field-programmable gate arrays (FPGAs). He has done seminal research in both their architecture and the computer-aided design (CAD) tools needed to use and explore them and has participated in the architectural development of the two key commercial FPGAs in the market today. In 1998 he co-founded Right Track CAD Corporation, which delivered CAD tools and architectures to vendors of FPGAs. Right Track was acquired by Altera Corporation in 2000, and the subsequent Altera Toronto Technology Centre now serves as a key technical hub for Altera, employing over 100 people, mostly engineers.

PEO, IEEE, ACM

Resve Saleh

UBC Professor Resve Saleh, NSERC/PMC-Sierra Chair in High Speed Microelectronic Circuits and Fellow of the IEEE, was one of the pioneers of mixed-mode simulation, described in his seminal book "Mixed-Mode Simulation and Analog Multilevel Simulation." He has also contributed pioneering work toward the development of voltage drop analysis in power distribution networks now used throughout the industry to improve the quality of integrated circuit designs. This technology was brought to the market place in 1995 as part of his company Simplex Solutions, and garnered him the 2008 Industrial Quality Award at the International Symposium on Quality Electronic Design Conference.

APEGBC, IEEE

N. G. Shrive

Dr. Shrive is one of the World's leading engineering academics and a pioneer in bio-engineering. His work has been recognized through numerous awards for teaching, research and service from universities and professional associations. He has published extensively in engineering and medical journals. His pioneering work in Biomed has changed clinical practices and the knee joint he invented as a graduate student at Oxford has helped thousands of people around the world improve their quality of life. His and his structural engineering students' work has been incorporated in codes of practice and work with his biomedical students, in his spin-off company.

APEGGA, ICE (UK), CSCE

Lawrence Brent Staples

Larry Staples, P.Eng., is a leader in the research, development, and application of cutting edge technology to meet societal needs. He is also well known for his volunteer leadership in APEGGA, spanning three decades, as well as with a variety of technical societies and community organizations, all of which aim to serve the public interest and to improve our quality of life. He was elected as a Fellow of the Canadian Society for Civil Engineering in 2001, served as APEGGA's 86th President in 2005, and currently serves as a Trustee of the Alberta Heritage Foundation for Science and Engineering Research, better known as Alberta Ingenuity. In short, he is a very nice guy who epitomizes the "well-rounded engineer".

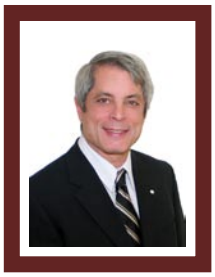
APEGGA, CSCE, ASCE

Philippe A. Tanguy

Professor Tanguy is recognized for his ground-breaking contributions to chemical engineering fundamentals and practice in the fields of mixing, computational fluid dynamics, rheology and paper coating technology. The impact of his work has been felt in a wide range of process and resource-based industries through innovative process designs and novel processing technologies. He serves the Canadian and global chemical engineering communities with his tireless efforts in organizing conferences, promoting the importance of higher education in sustainable process engineering, editing and reviewing his colleagues' publications, and serving as an ambassador for Canadian chemical engineering in numerous international forums.

Engineers Nova Scotia, CSChE, AIChE

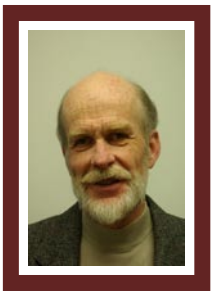
Lorne M. Trottier



Engineer, entrepreneur and philanthropist, Lorne Trottier has poured his passion for science into research, technological development and education in Quebec. In 1976, he co-founded Matrox Electronic Systems Ltd., a company known for its innovative computer graphics products. Through his technical innovation and market sense, he has helped Matrox become a world-leading multinational company in the field of computer graphics, video and imaging. He is also unfailing in support of his alma mater, McGill University, in addition to supporting Polytechnique Montreal and the Montreal Science Centre. He was named a member of the Order of Canada in 2007.

OIQ

Willem H. Vanderburg



In 2002, Dr. Vanderburg was recognized as one of 25 leading Canadian innovators by the Canada Foundation for Innovation. His innovation, preventive engineering, examines how technology influences human life, society and the biosphere to improve engineering design and decision-making. This achieves both the engineering results desired and simultaneously prevents or greatly reduces harmful effects. Today, he is recognized as a pioneer in this now crucial area, but he started many years ago. For example, in 1994 he co-chaired the former Premier's Council of Ontario's round table on developing technological and economic strategies for the province that would permit the economy to deliver goods and services with minimal harmful effects. He has written several books and is well known for his work.

PEO

Jean-Pierre Villeneuve

Professeur Villenueve est un leader dans le domaine de la recherche sur l'eau au Québec. En plus de poursuivre ses activités de recherche et de formation, le professeur Villeneuve a dirigé pendant 17 ans l'un des principaux centres de recherche sur l'eau au Canada. Ses propres activités de recherche portent sur la modélisation mathématique appliquée aux écoulements de l'eau et à l'évolution de leur qualité. Plus récemment, il a réalisé des travaux importants sur l'évolution et l'état des infrastructures d'eau au Québec. Il a œuvré surtout en hydrologie des bassins versants, en hydrologie urbaine, en hydraulique souterraine et en analyse de systèmes de ressources en eau. Il a plus de 350 publications et communications à son actif. Il a reçu plusieurs distinctions et reconnaissances pour l'ensemble de ses contributions.

Professor Villeneuve is a leader in the field of water research in Québec. In addition to his research and training activities, professor Villeneuve was in charge of one of the main water research centres in Canada for 17 years. His own research activities deal with mathematical modeling involving water discharge and the evolution of its quality. More recently, he conducted important work on the evolution and the condition of water infrastructures in Québec. His work dealt mostly with the hydrology of drainage basins, urban hydrology, groundwater hydraulics and analysis of water resource systems. He also has over 350 publications and papers to his credit. He has received numerous awards and recognitions for his overall contributions.

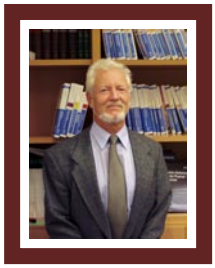
OIQ, CSCE, IWRA, AWWA, IAWQ

Robert S. Walker

For over thirty years Dr. Bob Walker has been a leader in defence science and technology in Canada and internationally. In his early career, his highly innovative approaches to acoustic signal processing kept the Canadian Navy and Air Force at the forefront of submarine detection. As a senior manager and now CEO of Defence Research and Development Canada, he has led the development and implementation of new scientific programs, nationally and internationally, that have advanced knowledge and stimulated engineering and technology development in the areas of defence and public security in this post 9/11 era.

IEEE

Michael R. Wertheimer



An expert on Materials and Plasma Sciences, Michael R. Wertheimer has shown strong leadership both in academia - through teaching, research and scientific publishing- and in industry as a founder or co-founder of four Canadian companies. A Professor at École Polytechnique in Montreal since 1973, he has published extensively and has been granted 26 patents. His work has resulted in the development and commercialisation of new plasma technologies and new protective coatings for, among others, space applications.

OIQ, IEEE, APS, IPCS

H. Neil Windsor

Mr. Windsor's professional career has been dedicated to serving society – first during his career in politics as a Minister in the Government of Newfoundland and Labrador, and since 1996 as the Executive Director and Registrar of APEGGA. In both roles he has employed his skills as a Professional Engineer to raise the quality of life of Canadian Society. As a Minister he initiated development programs which raised the quality of life for NL residents, including the development of off-shore oil and gas resources. As APEGGA ED, he initiated programs to better protect the Canadian public, including: mandatory Continuing Professional Development; accelerated registration for Engineers who move between provinces or internationally; and extending self-regulation to include technologists.

AGEGGA, PEGNL, CSAE, Engineers Canada

En-hui Yang

En-hui Yang is an international leader in source coding, a branch of information theory dealing with how to efficiently encode information for transmission, storage, and processing. A recipient of many awards including the 2007 Ernest C. Manning Award of Distinction and an IEEE Fellow, he has made profound contributions to communication engineering by introducing new fundamental source coding theory, solving long-standing open problems in source coding, inventing state-of-the-art lossless and lossy multimedia coding algorithms, co-founding SlipStream Data Inc., now a subsidiary of Research in Motion, and transforming his research results and coding algorithms into practice, which now impact on the daily life of tens of millions of people worldwide over 130 countries.

PEO, IEEE

Ludovit (Ludo) Zanzotto

Professor Ludo Zanzotto has been making contributions to engineering research and knowledge, particularly in the material science of asphalt, for almost 40 years. Modified asphalt materials with improved engineering properties have led to the increased service life of asphalt pavement. He has contributed to new specifications, materials and methodologies that have led to the improved competitiveness of Canadian products. As chairholder of the NSERC / John Lau Husky Energy Industrial Research Chair in Bituminous Materials, he has also established an internationally renowned research centre, developed a world-class multidisciplinary research team and provided advanced education for highly qualified personnel.

APEGGA, ASTM, CIC, ACS, AAPT, CTAA